

Focused Product Guide

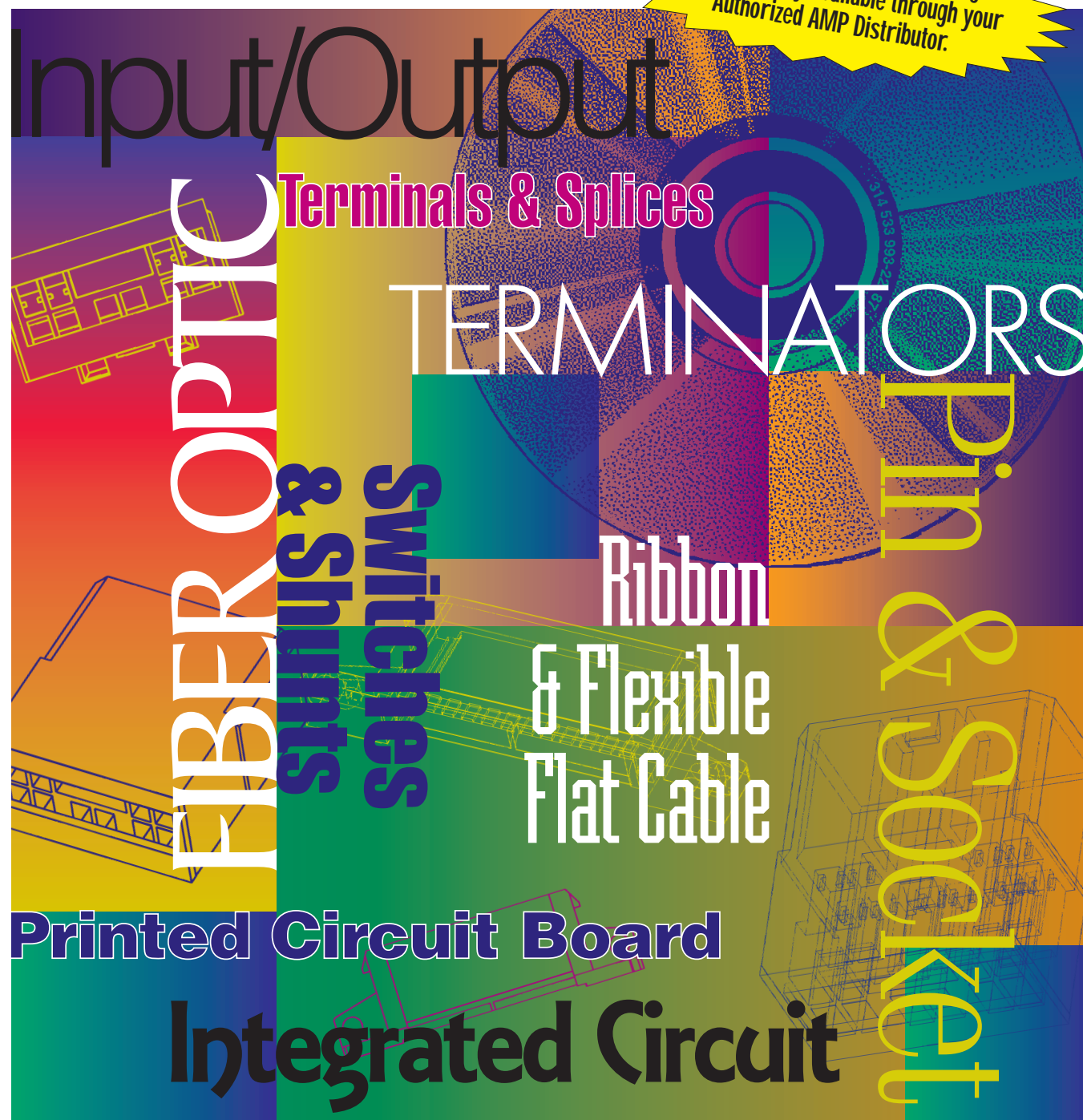
*Companion CD-ROM Product Guide included with
2D Geometries and 3D CAD models.*



Catalog 296642

Revised 3-99

*All Products listed in this catalog
are also readily available through your
Authorized AMP Distributor.*



CD-ROM

Need More Information?

Call the AMP Product Information Center:

1-800-522-6752

The Product Information Center is staffed with specialists well versed in all AMP products.

The center can provide:

- Engineering Support
- Technical Documents
- Catalogs
- Product Samples
- AMP FAX Service – Product Information Faxed Immediately
- Authorized AMP Distributor Locations

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TEFLON is a trademark of E.I. DuPont de Nemours and Co.

The products listed in this Guide represent approximately 10,000 AMP product part numbers that are **readily available** through your Authorized AMP Distributor or directly from AMP. To help you select from the vast interconnection capabilities offered by AMP, we have included a companion set of two CD-ROMs (see back inside cover).

CD-ROM No. 1 includes an electronic version of this catalog, technical specifications, customer drawings and the application software to allow you to open the CD programs on your PC.

To reduce your CAD input time, CD-ROM No. 2 contains 2D geometries and 3D CAD models in IGES format for more than 3,000 of the parts listed in this catalog. A **BLUE** part number signifies a part that has a model on the CD-ROM. Also included on this CD-ROM is a complete part number index. If you need a model for a part that is not included, call and we will develop a model for you.

Please see the welcome.pdf file in the help directory for more information on the important benefits offered on these CD-ROMs.

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AMP Incorporated, Harrisburg, PA 17105 — 717-564-0100
Product Information Center: 800-522-6752

Introduction

This guide to AMP products is unique within the connector industry. The products listed herein represent a cross-section of products that are readily available through your local Authorized AMP Distributor or from AMP direct. Two companion CD-ROMs have been included containing an electronic version of this catalog, customer drawings and product specifications. To help you shorten design-time cycles and eliminate the need to redraw AMP products in your CAD application, we have also included on the CD-ROMs a selection of 2D geometries and 3D CAD models.

How to use this Catalog.

For your convenience and ease of access, this catalog is divided into fifteen sections:

Section One: Input/Output Cable Connectors

AMP, the leading manufacturer of interconnection devices, offers a comprehensive mixture of input/output connectors. Represented here are the sizes and configurations of the most popular connectors, including Universal Serial Bus (USB) receptacles, Subminiature D connectors, high density .050 [1.27] centerline Subminiature D type connectors and transition connectors for RS-232 to modular jack applications, Shielded Circular Miniature DIN connectors, and Shielded Data Link (SDL) Connectors.

Section Two: Printed Circuit Board Connectors

Mating printed circuit board connectors are cataloged in section two. All feature AMP quality, many with configurations designed for high temperature applications. Keeping an eye on economy, without sacrificing quality, AMP provides a wide selection of economy pc board connectors that will meet most of today's needs.

Section Three: Ribbon and Flexible Flat Products

The AMP family of Ribbon Cable connectors is designed for quick, easy and labor saving, economical application, using AMP insulation displacement terminations (IDC). These versatile products find wide use in connecting pc board to pc board or one sub-system to another.

Section Four: Integrated Circuit Products

Included in this catalog, specifically to expedite your access to the most frequently requested DIP sockets, IC sockets, SIMM and

DIMM sockets, and memory modules, are an array of integrated circuit products that will meet your needs for fast, quality interconnection and services.

Section Five: Terminators

AMP terminators for SCSI bus systems match the characteristic impedance of the systems for which they are designed. Available in most of the popular connector configurations used for today's SCSI bus systems, AMP terminators meet the requirements for SCSI-1, -2 and -3 standards.

Section Six: Pin and Socket Connectors

AMP pin and socket connectors provide a highly reliable and economic means of grouping multiple-lead connections for many applications. Included in this group is the Soft Shell Family which includes the various MATE-N-LOK connectors, .093 [2.36] Commercial connectors, (MR) Miniature Rectangular connectors, and .062 [1.75] Commercial connectors. Also included are M Series connectors, Circular Plastic connectors (CPC), and Metrimate connectors.

Section Seven: Switches and Shunts

AMP programming devices include printed circuit board switches and shunts. The Dual In-Line Package (DIP) switches and programmable shunts are designed to fit the familiar .100 x .300 [2.54 x 6.62] pc board patterns. They are suited for programming functions in many applications. Post shunts mate with any common pairs of square, rectangular, or round posts.

Section Eight: Terminals and Splices

Designed for reliable performance, AMP "reds, blues, and yellows" set the standard for solderless terminals. The many styles of ring tongues, spades, tabs and receptacles (FASTON Terminals), and splices make AMP the number one producer of quality discrete wire terminations.

Section Nine: Fiber Optics

AMP has a broad line of passive, opto-electronic, and fiber optic interconnections for almost every electro-optic application. Our commitment to fiber optic technology began in 1975 and has evolved to today's capability to provide component solutions that go from the circuit board to the end-user. Included in this catalog are transceivers, photodetectors, transmitters, receivers, switches, multiplexers, demultiplexers, attenuators, and more.

Section Ten: RF Products

RF connectors are furnished in a wide variety of styles and configurations. Our RF connectors are designed in accordance with Military Specification MIL-C-39012. The more popular of these connectors are then qualified to this specification. With coaxial connectors, we specialize in compression crimping and can provide a choice of tooling to meet your needs.

Section Eleven: Copper Cable Products

As the world's leading supplier of interconnection systems, AMP is in a unique position to deliver the optimum cable for particular applications and budgets. AMP can supply high-quality IDC ribbon cable, round cable, round-to-flat cable, undercarpet cable and many variations of data cable. AMP also provides standard and custom cable assemblies.

Section Twelve: Rack and Panel Connectors

To handle large numbers of inputs and outputs easily and efficiently, AMP rack and panel connectors are the answer. Our CR zero insertion force modular plugs and receptacles feature long life and repeatable connect/disconnect capability. Our low force M-ZIF connectors are compatible with standard medical industry connectors and require only 7 kg-cm of force to engage and disengage.

Section Thirteen: High Voltage Connectors

AMP is the leading manufacturer of high voltage, high altitude, high temperature lead assemblies and connectors. LGH high voltage lead assemblies and receptacles are used in many systems designed to meet or exceed military specifications.

Section Fourteen: Miscellaneous Products

AMP manufactures various assorted products that find their way into a variety of OEM and end-user products. This section describes some of these products including but not limited to high speed data products, filtered products, modular plugs and jacks, pc board terminals and disconnects and a low profile system of receptacles.

Section Fifteen: Tooling

From our basic SUPER CHAMP tool to our revolutionary PRO-CRIMPER II tool, AMP has designed the right hand tool to do the job. Included in this catalog are the above mentioned tools as well as tools for terminating modular plugs, Category 5 IDC plugs and receptacles, coax connectors, MTA connectors, ACO connectors, and more.

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Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Input/Output Connectors

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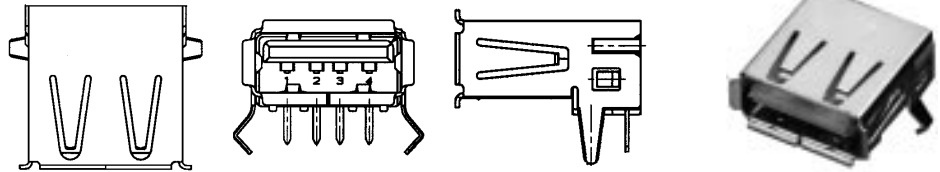
Section One: Input/Output Connectors

5-58

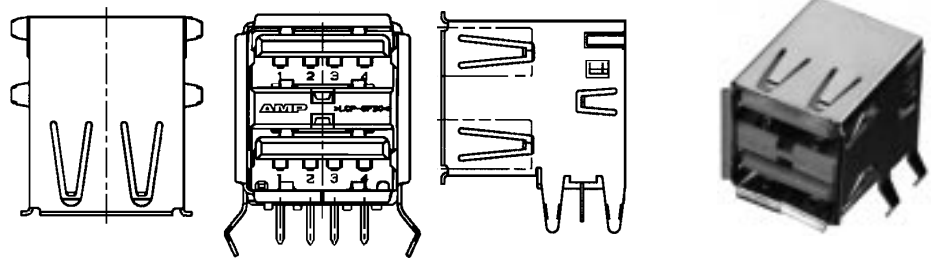
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Universal Serial Bus (USB) Receptacles

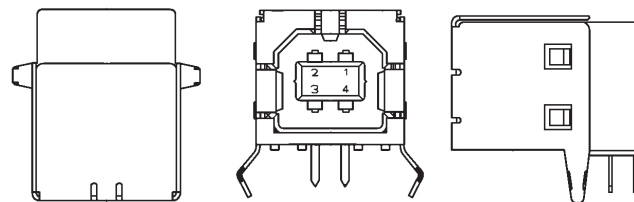
Series A, 4-Position
Right-Angle Receptacle —
Thru-Hole
Part No. **787616-1**
(Solder tail length: .090 [2.29])



Series A, Stacked,
4-Position, Right-Angle
Receptacle — Thru-Hole
Part No. **787617-1**
(Solder tail length: .112 [2.84])



Series B, 4-Position,
Right-Angle
Receptacle — Thru-Hole
Part No. **787780-1**



USB Cable Plug
Cable Assemblies —
Bus Extender (A to B)

Length (M) ¹	Cable Construction (Shielded)	Part Number
1.0	2-28 AWG [0.08 mm ²], 2-26 AWG [0.15 mm ²]	621773-1
2.0	2-28 AWG [0.08 mm ²], 2-24 AWG [0.2 mm ²]	621774-2

¹Preferred lengths

Universal Serial Bus (USB) Receptacles plus Cable Connectors and Assemblies

AMP manufactures a complete line of Universal Serial Bus (USB) pc board receptacles, cable connectors, and is capable of supplying a wide range of cable assemblies. These configurations can be made available upon request.

If your application calls for other Series A or Series B type receptacles, cable connectors, or cable assemblies:

Contact your local Authorized
AMP Distributor or call
AMP Incorporated:
1-800-522-6752

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 296101

CHAMP 0.8mm Series Connectors

Receptacle Assemblies, Shielded Right-Angle with Thru-Hole or Hybrid Leads

Material and Finish

Housing and Pin Spacer—UL 94V-0 rated thermoplastic, black, SMT compatible

Inserts — UL 94V-0 rated thermoplastic, natural, SMT compatible

Shell — Steel, plated 0.00500 min. bright tin over 0.00250 min. copper

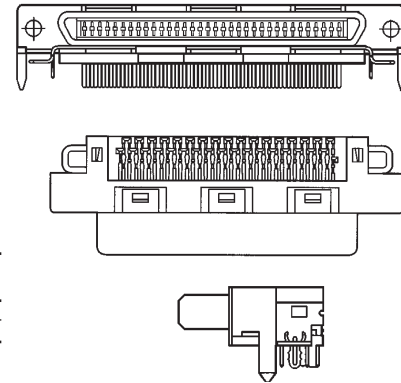
Input/Output Connectors (Continued)

Boardlocks — Brass, plated 0.00375 min. bright tin-lead over 0.00127 min. nickel

Contacts — Phosphor bronze, duplex plated 0.000076 min. gold over 0.00076 min. palladium nickel on mating end, 0.00375 min. bright tin-lead on solder end, all over 0.00127 nickel underplating

No. of Pos.	Profile Type	Lead Type	Part Number
50	Low	Hybrid	787096-1
68	High	Thru-Hole	787254-1

'68 position receptacle shown.



90-Position, Vertical Low Profile Receptacle Assembly, Shielded, Surface Mount Part No. 787256-1

Material and Finish

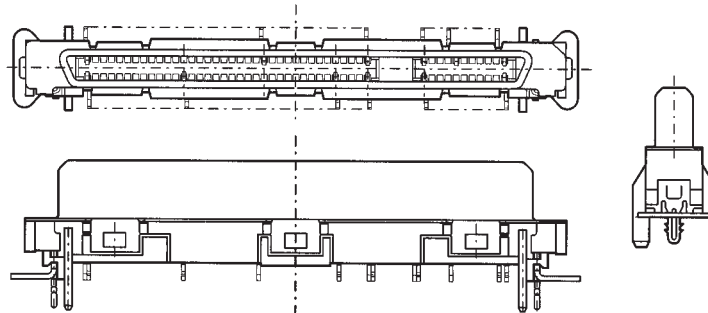
Housing—UL 94V-0 rated thermoplastic, suitable for IR and vapor phase, black

Inserts — UL 94V-0 rated thermoplastic, suitable for IR and vapor phase, natural

Shell — Steel, plated 0.00500 min. bright tin over 0.00250 min. copper

Boardlocks — Brass, plated 0.00375 min. bright tin-lead over 0.00127 min. nickel

Contacts — Phosphor bronze, duplex plated 0.000076 min. gold over 0.00076 min. palladium nickel on mating end, 0.00375 min. bright tin-lead on solder end, all over 0.00127 nickel underplating



90-Position, Right-Angle, Low Profile Plug Assembly, Shielded, with Hybrid Leads Part No. 787046-1

Material and Finish

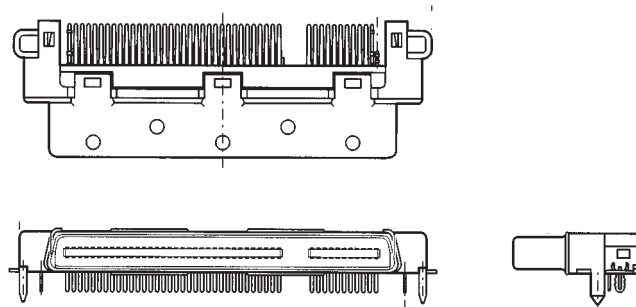
Housing—UL 94V-0 rated thermoplastic, SMT compatible, black

Inserts — UL 94V-0 rated thermoplastic, SMT compatible, natural

Shell — Steel, plated 0.00500 min. bright tin over 0.00250 min. copper

Boardlocks — Brass, plated 0.00375 min. bright tin-lead over 0.00127 min. nickel

Contacts — Phosphor bronze, duplex plated 0.000076 min. gold over 0.00076 min. palladium nickel on mating end, 0.00375 min. bright tin-lead on solder end, all over 0.00127 nickel underplating



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65972

CHAMP 0.8mm Series Connectors

68-Position, Plug Kit, Unassembled, Shielded Cable Connector
Part No. 787131-3

Material and Finish

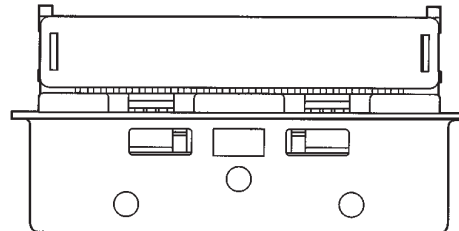
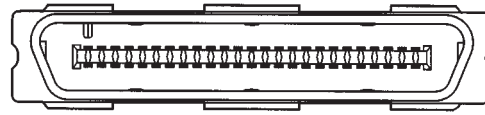
Housing — LCP, UL 94V-0 rated, natural

Termination Covers — LCP, UL 94V-0 rated, black

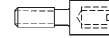
Shell — Carbon steel, plated 0.00508 min. tin-lead over 0.00127 min. copper

Contacts — Phosphor bronze, DURAGOLD plated 0.000076 min. gold on mating end, 0.00127 min. tin-lead on solder end, all over 0.00127 nickel underplating

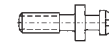
30 AWG solid or stranded wire



Screwlock
Part No. 787004-3
(Bulk Packed/200)



Latching Post, Boardmount
Part No. 787003-3
(Bulk Packed/200)



No. of Pos.	Part Number
50	787131-1
68	787131-3

Backshell Kit, with Jackscrew Fastener
Part No. 787191-1 (Bulk Kits/100)

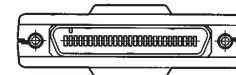
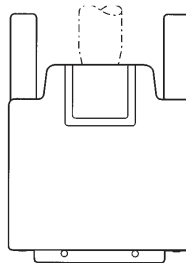
Material and Finish

Housing — Steel, plated 0.005 min. bright tin-lead over 0.0025 min. copper

Jackscrews — Steel, plated blue chromate over zinc

Jackscrew Head — ABS/PC, black

Jackscrew Covers — UL 94V-0 rated, ABS/PC alloy, black



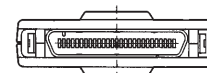
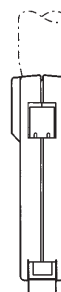
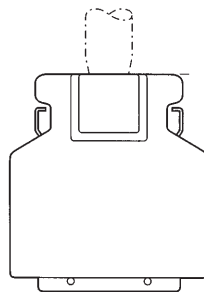
Backshell Kit, with Squeeze-to-Release Latches
Part No. 787133-1 (Bulk Kits/100)

Material and Finish

Housing — Steel, plated 0.005 min. bright tin-lead over 0.0025 min. copper

Spring Latches — Stainless steel

Spring Latch Covers — UL 94V-0 rated, ABS/PC alloy, black



CHAMP 0.8 mm to AMPLIMITE .050 Adapter Cable

Material and Finish

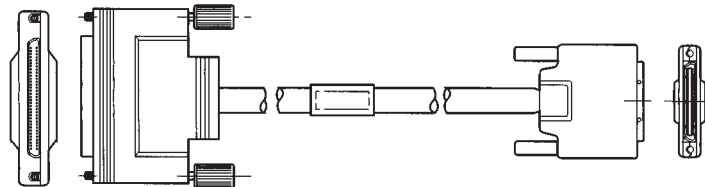
Contacts — Phosphor bronze, duplex plated dura gold on mating end, bright tin-lead on termination end, all under-plated nickel

Housing & Covers — Thermoplastic, 94V-0, black

Shells — Steel, plated tin-lead over copper

Jackscrews — Steel

Cable — Twisted pair #30 AWG, foil and braided shield, PVC jacket, 90 ohm single-ended impedance



Cable Adapter
68 Position to 68 Position
5 Meters Long
Part No. 621540-9

For Complete Product Information, Order Catalog 65972 and 296531

CHAMP .050 Series I Connectors

Blindmate, Single Connector Attachment (SCA 2) for SCSI Disk Drives

Receptacle Assembly, 80-Position Vertical Mount
Part No. 787311-1 (with keying post and 3.18 mm tail length)

Note: Receptacle Connector will accommodate mating pc board 1.60 thick

Receptacle Assembly, 80-Position Vertical Mount, Extended Height
Part No. 787596-1
(with 4.57 mm tail length)

Note: Receptacle Connector will accommodate mating pc board 1.60 thick

Receptacle Assembly, 80-Position Right Angle, Extended Height
Part No. 787535-1
(with sequencing contacts)

Note: Receptacle Connector will accommodate mating pc board 1.60 thick

Plug Assembly, 80-Position Vertical Mount, Part No. 787319-1
(with polarization post)

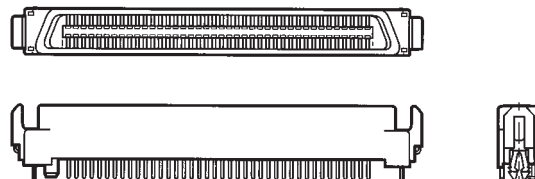
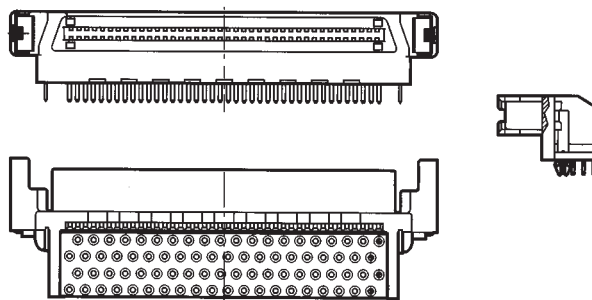
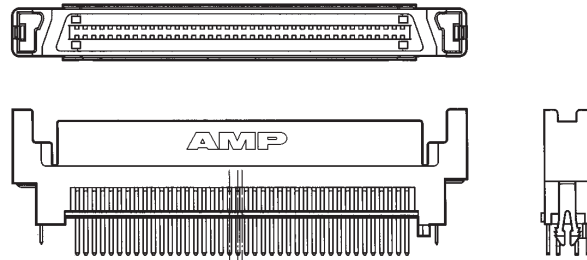
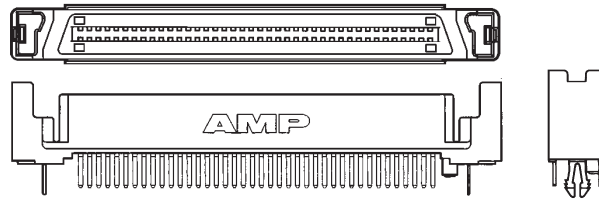
Note: Receptacle Connector will accommodate mating pc board 1.60 thick

Input/Output Connectors (Continued)

Material and Finish

Housing — LCP, 94V-0 rated, black
Contacts — Phosphor bronze, plated
0.00076 min. gold on mating end,

0.00381 min. tin-lead on solder end, all over 0.00127 min. nickel underplating
Retention Leg — Brass, plated
0.00381 min. tin-lead over 0.00127 min. nickel



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 124304

CHAMP .050 Series I Connectors

Blindmate, Single Connector Attachment (SCA 2) for SCSI Disk Drives

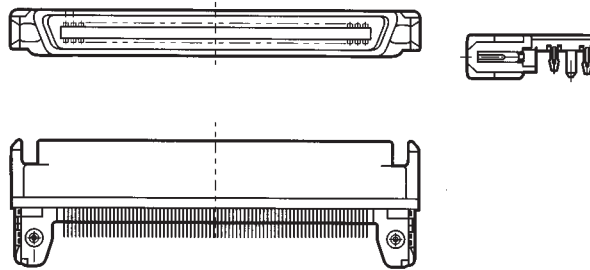
Plug Assembly, 80-Position Right Angle, Surface Mount
Part No. 5-917593-9

Input/Output Connectors (Continued)

Material and Finish

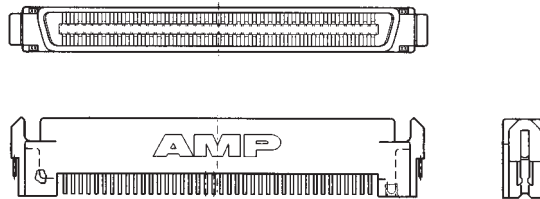
Housing — LCP, 94V-0 rated, black
Contacts — Phosphor bronze, plated
0.00076 min. gold on mating end,

0.00381 min. tin-lead on solder end, all over 0.00127 min. nickel underplating
Retention Leg — Brass, plated
0.00381 min. tin-lead over 0.00127 min. nickel



Plug Assembly, 80-Position Straddle Mount
Part No. 787312-1

Note: Plug Connector will accommodate pc board 1.32 max. thick



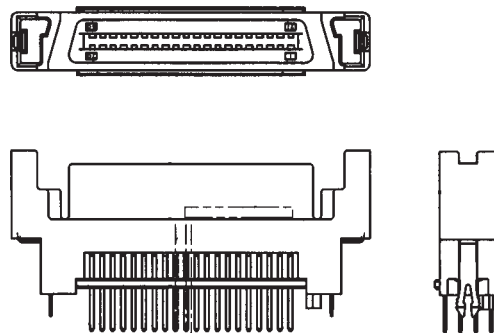
Blindmate, Single Connector Attachment (SCA 2) for Fibre Channel Disk Drives

Receptacle Assembly, 40-Position Vertical Mount, Extended Height
Part No. 787597-1
(with 4.57 mm retention leg)

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black
Contacts — Phosphor bronze, plated
0.00076 min. gold on mating end,

0.00381 min. tin-lead on solder end, all over 0.00127 min. nickel underplating
Retention Leg — Brass, plated
0.00381 min. tin-lead over 0.00127 min. nickel



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 124304 & 296175

CHAMP .050 Series I Connectors

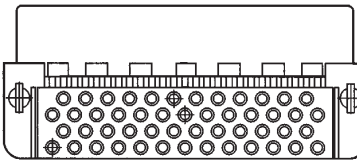
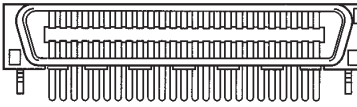
**Board-to Board Application
Right-Angle Plugs —
High Temp.**

Material and Finish

Housing and Tine Plate — LCP,
94V-0 rated, black

Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold in contact
area, tin-lead in solder tail area

Boardlocks — Brass, plated tin-lead

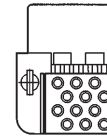
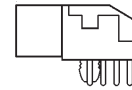


Note: Accommodates pc board .031 [0.79] to .063 [1.60] nom. thickness.

No. of Pos.	Part Number
40	557100-5
50	557100-9
68 ¹	1-557100-7
80 ²	2-557100-1
100	2-557100-5
120	2-557100-9
140	4-557100-9

¹VMC Standard

²VAFC Standard



Alternate contact
arrangement for
40, 68, 80, 100,
120 and 140-
Positions

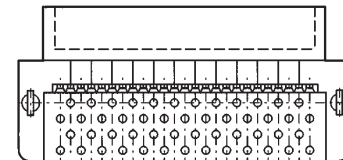
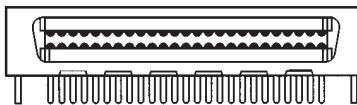
**Board-to Board Application
Right-Angle Receptacle —
High Temp.**

Material and Finish

Housing and Tine Plate — LCP,
94V-0 rated, black

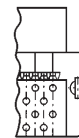
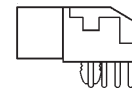
Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold in contact
area, tin-lead in solder tail area

Boardlocks — Brass, plated tin-lead



Note: Accommodates pc board .031 [0.79] to .063 [1.60] nom. thickness.

No. of Pos.	Part Number
40	557101-5
50	557101-9
68	1-557101-7
80	2-557101-1
100	2-557101-5
140	4-557101-9



Alternate con-
tact arrange-
ment for 80 and
100-Positions

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82244

CHAMP .050 Series I Connectors

**Board-to Board Application
Vertical Plugs — High Temp.**
(With End Blocks and Keying Post)

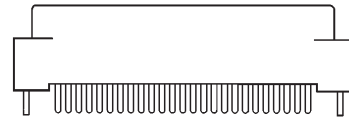
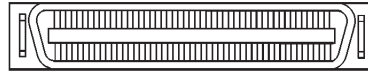
Material and Finish

Housing and Tine Plate — LCP,
94V-0 rated, black

Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold in contact
area, tin-lead in solder tail area

Boardlocks — Brass, plated tin-lead

Input/Output Connectors (Continued)



No. of Pos.	Part Number
40	557102-5
68	1-557102-7
80	2-557102-1
100	2-557102-5
160	3-557102-7

Note: Accommodates pc board .031 [0.79] to .063 [1.60] nom. thickness.

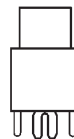
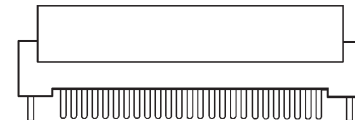
**Board-to Board Application
Vertical Receptacles —
High Temp.**

Material and Finish

Housing and Tine Plate — LCP,
94V-0 rated, black

Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold in contact
area, tin-lead in solder tail area

Boardlocks — Brass, plated tin-lead



No. of Pos.	Part Numbers	
	With Keying Post ¹	Without Keying Post ²
50	557103-9	—
68	—	1-786925-7
80	2-557103-1	2-786925-1
100	2-557103-5	—
160	3-557103-7	—

¹End Board Locks and Keying Post
²End Board Locks

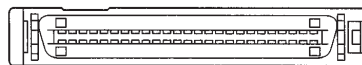
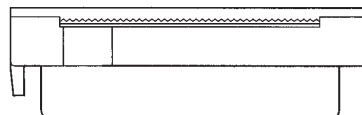
Note: Accommodates pc board .031 [0.79] to .063 [1.60] nom. thickness.

**VESA Application Ribbon
Cable Receptacles for .025
[0.64] Ribbon Cable**

Material and Finish

Housing and Tine Plate — LCP,
94V-0 rated, black

Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold in contact
area, .000150 [0.00381] min. tin-lead on
terminating end all over .000050
[0.00127] min. nickel



No. of Pos.	Part Number
68 ¹	1-557089-2
80 ²	1-557089-3
100	1-557089-5

¹VMC Standard

²VAFC Standard

Note: See Section 3 for other ribbon
cable products.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82244

CHAMP .050 Series II Connectors

**Wire-to Board Application
Right-Angle Receptacle —
High Temp.**

14-Position:

Part No. 557153-3

Material and Finish

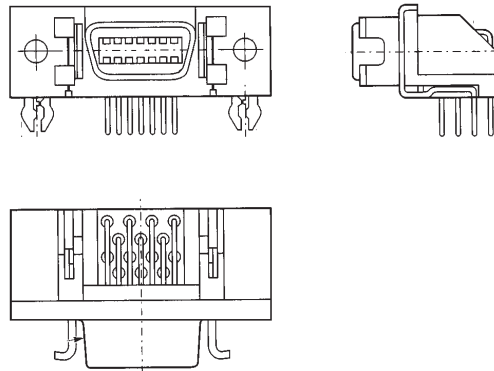
Housing — Glass-Filled LCP, 94V-0 rated, black

Contacts — Phosphor bronze, plated .000030 [0.00076] min. gold in contact area, tin-lead in solder tail area

Shield — Carbon steel, tin-cobalt plated

Latch Receivers — Stainless steel

Input/Output Connectors (Continued)



Note: Accommodates pc board .062 [1.60] to .093 [2.36] nom. thickness.

CHAMP .050 Docking Connectors

**Box-to-Box Application
Right-Angle Plug**

198-Position:

Part No. 557118-1

Material and Finish

Housing & Tine Plate — LCP, 94V-0 rated, black

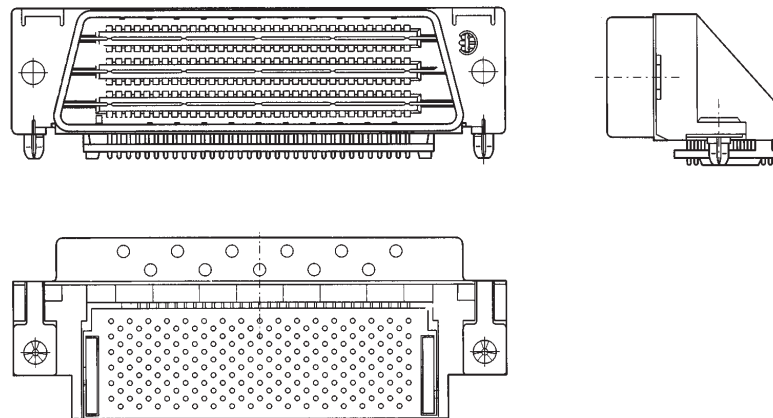
Contacts — Phosphor bronze, plated .000030 [0.00076] min. gold in contact area, tin-lead in solder tail area

Shield — Carbon steel, nickel plated

ESD Wires — Stainless steel

Threaded Inserts — Zinc

Aligner — Polyester film



**Box-to-Box Application,
Low Profile Right-Angle
Receptacle, 5-Row Footprint,
160-Position with Center
Ground Plate**

Part No. 917042-4

Material and Finish

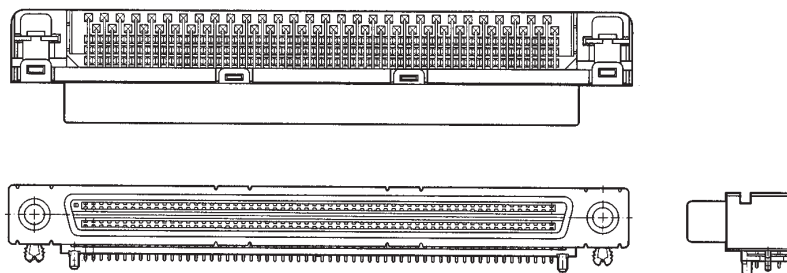
Housing & Tine Plate — LCP, 94V-0 rated, natural, SMT compatible

Contacts — Phosphor bronze, plated .000008 [0.00020] min. gold in contact area, tin-lead in solder tail area, all over nickel underplating

Shell — Steel, plated nickel over copper underplate

Guide Sockets & Boardlocks — Brass, plated nickel over copper underplate

Ground Plate — Stainless steel



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82244

CHAMP .050 Series, FH Connectors

Right-Angle Plug —
60-Position
Part No. **557153-3**

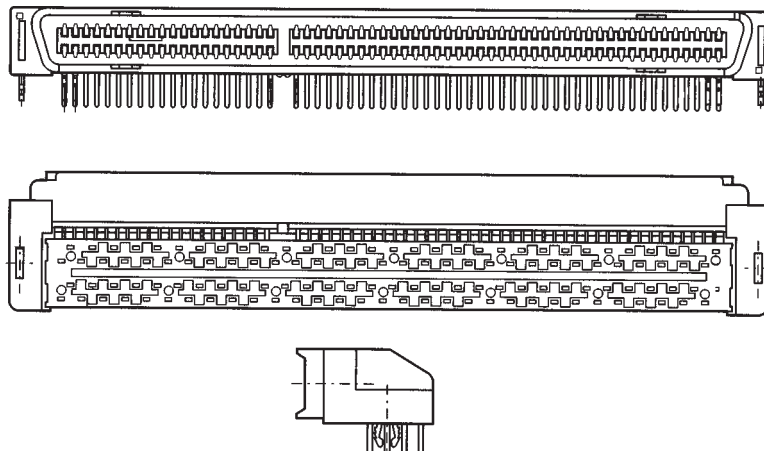
Material and Finish

Housing — Glass-Filled nylon 6/6,
94V-0 rated, black

Contacts — Phosphor bronze, selec-
tively plated .000012 [0.00030] min.
gold in contact area, tin-lead in solder
tail area

Retention Leg — Brass, tin-lead
plated

Input/Output Connectors (Continued)



CHAMP Quiet Line Filtered Connectors

Shielded Right-Angle
Connector with Bail Clips

50- Position Connector
Filter Type:
220pF/1000VAC
Part No. 93960-1



BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 65230 and 65696

AMPLIMITE Connectors

HDP-22, Subminiature D, Crimp Snap-In Contact Plug Housings

Material and Finish

Shell — Steel, tin plated

Insert — Thermoplastic, 94V-0 rated, black

Input/Output Connectors (Continued)

Shell Size	No. of Pos.	Part Numbers		
		Plug	Receptacle	Receptacle ¹
1	15	748364-1	748565-1	748696-1
2	26	748365-1	748566-1	—
3	44	748366-1	748567-1	—
4	62	748367-1	748568-1	—
5	78	748368-1	748569-1	—

¹With clinch nuts.**Notes:** Plugs accept Size 22 DF pin contacts, and receptacles accept Size 22 DF socket contacts.

Contacts and ferrules must be ordered separately, see below and page 21.

Plug



Receptacle



HDP-22, Subminiature D, Crimp Snap-In Contact Connector, Shielding Hardware Kits

Material and Finish

Connector Shell — Steel, tin plated

Connector Insert — Thermoplastic, 94V-0 rated, black

Shields — Steel, tin plated

Each kit contains:

Connector, Inner Shield and Outer Shield

Shell Size	No. of Pos.	Kit Numbers	
		Plug	Receptacle
1	15	748468-1	748634-1
2	26	748469-1	748635-1
3	44	748470-1	—
4	62	748471-1	—
5	78	748472-1	—

Notes:

- 1.Plugs accept Size 22 DF pin contacts, and receptacles accept Size 22 DF socket contacts.
- 2.Components of the kits are shipped unassembled and bulk-packaged in quantities of 100 pieces.
- 3.Contacts and ferrules must be ordered separately, see below and page 21.



Plug Hardware Kit



Receptacle Hardware Kit

HDP-22, Subminiature D, Crimp Snap-In Contact Connector, Shielding Hardware, Enclosure Kits

Material and Finish

Connector Shell — Steel, tin plated

Connector Insert — Thermoplastic, 94V-0 rated, black

Shields — Steel, tin plated

Each kit contains:

Connector, Inner Shield, Outer Shield, Enclosure and Two Jackscrews

Shell Size	No. of Pos.	Part Numbers	
		Plug	Receptacle
1	15	748473-1	748639-1
2	26	748474-1	748640-1
3	44	748475-1	748641-1
4	62	748476-1	—
5	78	748477-1	—

Notes:

- 1.Plugs accept Size 22 DF pin contacts, and receptacles accept Size 22 DF socket contacts.
- 2.Components of the kits are shipped unassembled and bulk-packaged in quantities of 100 pieces.
- 3.Contacts and ferrules must be ordered separately, see below and page 21.

Plug Enclosure Kit



Receptacle Enclosure Kit

Precision Formed Crimp, Snap-in Contacts, Size 22 DF, Wire Size 28-22 AWG [0.4-0.08 mm²], Insulation Diameter .400 [1.02] max.

Material and Finish

Pin Contact — Brass

Socket Contact — Phosphor Bronze

Plating:

A. .000030 [0.00076] min. gold on mating end, tin-lead on crimp barrel, all nickel underplate

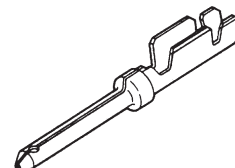
B. Gold flash on mating end, tin-lead on crimp barrel, all nickel underplate

Plating Code	Part Numbers			
	Pin		Socket	
	Strip	Loose	Strip	Loose
A	748333-2	748333-4	748610-2	748610-4
B	748333-5	748333-7	748610-5	748610-7

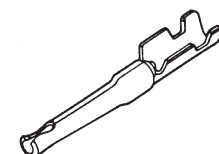
Note:

Strip form contacts shipped 20,000 pieces/reel.

Pin



Socket

**BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE Connectors

Input/Output Connectors (Continued)

HDP-20, Subminiature D,
Crimp Snap-In Contact
Housings

Material and Finish

Shell — Steel, tin or zinc plated

Insert — Thermoplastic, 94V-0 rated, black

Contacts and Ferrules must be ordered separately, see pages 17 and 21

Clinch
Nut

Shell Size	No. of Pos.	Plug Part Numbers		
		Zinc Plate	Tin Plate	
			w/o Grd.	W/Grd.
1	9	205204-1	205204-3	205204-4
1 ¹	9	—	—	745906-2
2	15	205206-1	205206-2	205206-3
2 ¹	15	—	745908-1	745908-2
3	25	205208-1	207464-1	207464-2
3 ¹	25	—	—	745036-2
4	37	205210-1	205210-2	205210-3
4 ¹	37	—	—	745135-2
5	50	205212-1	205212-2	205212-3

Plug



Shell Size	No. of Pos.	Receptacle Part Numbers	
		Zinc Plate	Tin Plate
1	9	205203-1	205203-3
1 ¹	9	—	745907-1
2	15	205205-1	205205-2
3	25	205207-1	207463-1
3 ¹	25	—	207516-3
4	37	205209-1	205209-2
4 ¹	37	—	207661-3
5	50	205211-1	205211-2

Receptacle

¹Clinch nut mounting with M-3 threads.HDP-20, Subminiature D,
Crimp Snap-In Contact
Connector, Shielding
Hardware Kits

Material and Finish

Connector Shell — Steel, tin plated

Connector Insert — Thermoplastic, 94V-0 rated, black

Shields — Steel, tin plated

Each kit contains:

Connector, Inner Shield and Outer Shield

Shell Size	No. of Pos.	Kit Numbers	
		Plug	Receptacle
1	9	747952-1	747951-1
2	15	747954-1	747953-1
3	25	747956-1	747955-1
4	37	747958-1	747957-1
5	50	747960-1	—

Notes:

1. Plugs accept Size 20 DF pin contacts, and receptacles accept Size 20 DF socket contacts.
2. Components of the kits are shipped unassembled and bulk-packaged in quantities of 100 pieces.
3. Contacts and Ferrules must be ordered separately, see pages 17 and 21.

Plug Hardware Kit

Receptacle
Hardware KitHDP-20, Subminiature D,
Crimp Snap-In Contact
Connector, Shielding
Hardware, Enclosure Kits

Material and Finish

Connector Shell — Steel, tin plated

Connector Insert — Thermoplastic, 94V-0 rated, black

Shields — Steel, tin plated

Each kit contains:

Connector, Inner Shield, Outer Shield, Enclosure and Two Jackscrews

Shell Size	No. of Pos.	Kit Numbers	
		Plug	Receptacle
1	9	747522-1	747523-1
1 ¹	9	748526-1	748536-1
2	15	747538-1	747539-1
3	25	747554-1	747555-1
4	37	—	747571-1
4 ¹	37	—	749763-1
5	50	747577-1	747578-1

¹Clinch nut mounting with M-3 threads.

Notes:

1. Plugs accept Size 20 DF pin contacts, and receptacles accept Size 20 DF socket contacts.
2. Components of the kits are shipped unassembled and bulk-packaged in quantities of 100 pieces.
3. Contacts and Ferrules must be ordered separately, see pages 17 and 21.

Plug Enclosure Kit

Receptacle
Enclosure KitAMPLIMITE HDP-20 RS-232
Repair Kit Part No. 787053-2
(Includes Crimping Tool)

For Complete Product Information, Order Catalog 82068

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

AMPLIMITE Connectors

Input/Output Connectors (Continued)

Precision Formed Crimp,
Snap-in Contacts,
Size 20 DF, Wire Size
28-22 AWG [0.4-0.08 mm²],
Insulation Dia. 0.40
[1.02] max.

Material and Finish

Pin Contact — Brass

Socket Contact — Phosphor Bronze
Plating:

A— Gold flash on mating end, tin-lead
on crimp barrel, all nickel underplate

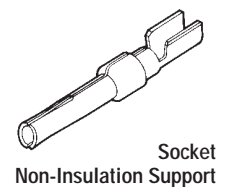
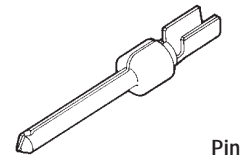
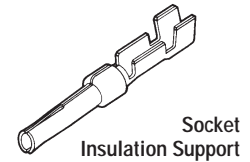
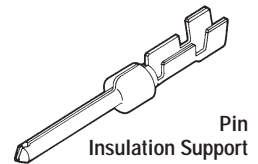
B— .000030 [0.00076] min. gold on
mating end, tin-lead on crimp barrel, all
nickel underplate

C— Gold flash over nickel on entire
contact

D— Gold flash on mating end, tin-lead
on termination end, with entire contact-
nickel underplate

Contacts with Insulation Support

Wire Size AWG [mm ²]	Ins. Dia. Max.	Pl. Code	Part Numbers			
			Pin		Socket	
			Strip	Loose	Strip	Loose
.040 0.08-0.2	1.02	A	66507-3	66507-9	66505-3	66505-9
		B	3-66507-0	5-66507-7	6-66505-0	6-66505-2
		C	66507-4	1-66507-0	66505-4	1-66505-0
		D	3-66507-1	—	5-66505-7	5-66505-9
.060 0.08-0.2	1.52	A	66682-2	66682-4	66683-2	66683-4
		B	66682-9	1-66682-1	1-66683-0	—
		D	66682-6	—	66683-7	—
		A	745254-2	745254-6	745253-2	745253-6
.050 0.15-0.4	1.27	B	1-745254-4	1-745254-6	1-745253-4	1-745253-6
		C	745254-3	745254-7	745253-3	745253-7
		D	1-745254-1	1-745254-3	1-745253-1	1-45253-3
		A	66506-3	66506-9	66504-3	66504-9
.060 0.2-0.6	1.52	B	2-66506-4	5-66506-7	5-66504-9	6-66504-0
		C	66506-4	1-66506-0	66504-4	1-66504-0
		D	2-66506-5	5-66506-9	5-66504-6	—



Contacts without Insulation Support

Wire Size AWG [mm ²]	Ins. Dia. Max.	Pl. Code	Part Numbers	
			Pin Strip	Socket Strip
.068 0.08-0.2	1.73	A	205310-2	—
.068 0.2-0.6	1.73	A	205202-2	205201-3
		C	205202-6	205201-6
		A	745229-2	745230-2
.068 0.4-0.8	1.73	B	1-745229-1	1-745230-1
		C	—	745230-5

Precision Formed Square
Posted Snap-In Contacts,
Size 20 DF, Pin Diameter
.040 [1.02], .025 [0.64]
Square Post

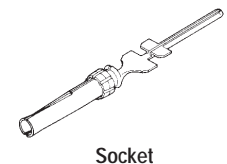
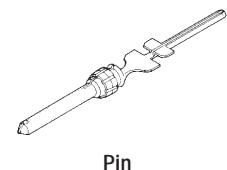
Material and Finish

Pin — Brass

Socket — Phosphor Bronze, both plat-
ed gold flash over nickel on the entire
contact, with additional .000030
[0.00076] min. gold on the mating end

Contact Finish (Plating)	Post Length ¹					
	.125 [3.18] Socket	.188 [4.78] Pin	.427 [10.65] Pin	.427 [10.65] Socket	.651 [16.54] Pin	.651 [16.54] Socket
A	745288-4	2-745287-0	745287-8	745288-8	1-745287-2	1-745288-2
B	—	1-745287-8	745287-6	745288-6	1-745287-0	1-745288-0

¹Length of post extending from rear of HDP-20 metal shell connector.



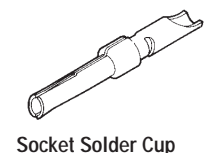
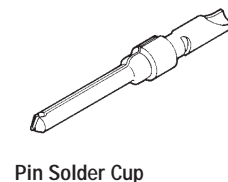
Solder Cup Contact, Size 20
DF, Pin Dia. .040 [1.02]

Material and Finish

Pin — Brass

Socket — Phosphor Bronze, both plat-
ed gold flash over nickel on the entire
contact, with additional .000030
[0.00076] min. gold on the mating end

Part Numbers		
Pin		Socket
Loose	Strip	Loose
66570-3	66570-2	66569-3



BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE Connectors

HDF-20 Low Profile
Metal-Shell Connectors
(for Flat Ribbon Cable)

Material and Finish

Front Shell — Steel, tin plated

Housing, Cover & Cable

Stabilizer — Black thermoplastic,
94V-0 rated

Threaded Inserts — Brass, unplated

Contacts — Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, .000100-.000200 [0.00254-.0.00508] bright tin-lead on termination end, entire contact underplated .000050 [0.00127] min. nickel

Notes:

1. Plug Assemblies(with Grounding Indents).
2. See Section 3 for other ribbon cable products.

Input/Output Connectors (Continued)

No. of Pos. & (Shell Size)	Cable Stabilizer	Plug Part Nos.	
		With Standard Mounting Holes	With Threaded Inserts
9 (1)	747275-4	747306-4	747043-4
15 (2)	747275-3	747306-3	747043-3
25 (3)	747275-2	747306-2	747043-2
37 (4)	747275-1	747306-1	747043-1
50 (5)	746785-1	—	746790-1

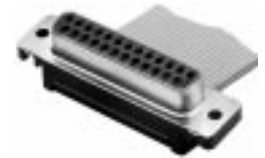
Note: All assemblies are supplied with housing and cover pre-assembled. Optional cable stabilizer must be ordered separately.

No. of Pos. & (Shell Size)	Cable Stabilizer	Receptacle Part Nos.	
		With Standard Mounting Holes	With Threaded Inserts
9 (1)	747275-4	747303-4	747052-4
15 (2)	747275-3	—	—
25 (3)	747275-2	747303-2	747052-2
37 (4)	747275-1	—	—
50 (5)	746785-1	—	746789-1

Note: All assemblies are supplied with housing and cover pre-assembled. Optional cable stabilizer must be ordered separately.



Plug



Receptacle

HDF-20 Low Profile All Plastic
Connectors (for Flat Ribbon
Cable)

Material and Finish

Housing, Cover & Cable

Stabilizer — Black thermoplastic,
94V-0 rated

Threaded Inserts — Brass, unplated

Contacts — Phosphor Bronze, duplex plated .000030 [0.00076] min. gold on mating end, .000100-.000200 [0.00254-.0.00508] min. bright tin-lead on termination end, entire contact underplated .000050 [0.00127] min. nickel

Note: See Section 3 for other ribbon cable products.

No. of Pos. & (Shell Size)	Cable Stabilizer	Plug Part Nos.	
		With Standard Mounting Holes	With Threaded Inserts
9 (1)	747275-4	747321-4	747053-4
15 (2)	747275-3	747321-3	—
25 (3)	747275-2	747321-2	747053-2
37 (4)	747275-1	747321-1	747053-1

Note: All assemblies are supplied with housing and cover pre-assembled. Optional cable stabilizer must be ordered separately.

No. of Pos. & (Shell Size)	Cable Stabilizer	Receptacle Part Nos.	
		With Standard Mounting Holes	With Threaded Inserts
9 (1)	747275-4	747318-4	747051-4
15 (2)	747275-3	747318-3	747051-3
25 (3)	747275-2	747318-2	747051-2
37 (4)	747275-1	747318-1	—

Note: All assemblies are supplied with housing and cover pre-assembled. Optional cable stabilizer must be ordered separately.



Plug



Receptacle

9-Position, HDJ-20 All-Plastic
Jacketed Cable Connectors

(for Crimp, Snap-In Contacts)

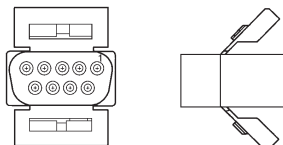
Material — Thermoplastic, black

Cord Guards:

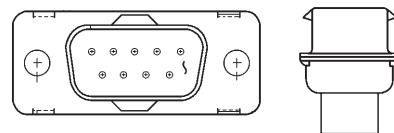
Standard and Squeeze-to-Release

Contacts must be ordered separately,
see page 17

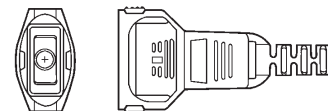
Receptacle Part No. 207752-3



Plug Part No. 245018-1



Inside Dia.	Standard Part No.	Squeeze-to-Release Part No.
.234 5.94	207753-1	—
.200 5.08	—	745002-1



Squeeze-to-Release Cord Guard (Shown)

For Complete Product Information, Order Catalog 82068

Hardware

Input/Output Connectors (Continued)

Male Screw Retainers for Metal-Shell Connectors (HDP-20)

Material and Finish

Male Screw — Steel, zinc plated clear or yellow chromate

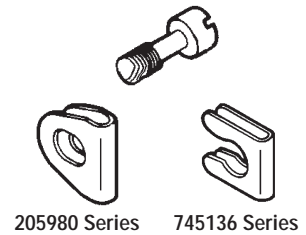
Retention Clip — .012 [0.51] stainless steel

Screw Finish	Thread Size	Retainer Kit No.	
		Individual	Bulk
Yellow Chromate	4-40	205980-1 ²	205980-3 ²
—	—	745136-1 ¹	745136-2 ¹
—	M3	207871-1 ³	—
Clear Chromate	4-40	205980-4 ²	205980-5 ²
—	—	245136-3 ¹	—

¹Screw length .200 [5.08]

²Screw length .220 [5.59]

³Screw length .225 [5.72]



205980 Series

745136 Series

Male Screw Retainers for Metal-Shell and All-Plastic Connectors (HDF) and All-Plastic (HDE)

HDF

Part No. 746881-1
(Individually packed)

Part No. 746881-2
(Bulk packed)

HDE

Part No. 745647-1
(Individually packed)

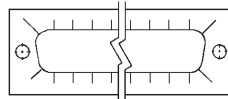
Part No. 745647-2
(Bulk packed)



EMI/RFI Gaskets

Material and Finish

Brass, .006 [0.15] thick, plated bright tin



Shell Size	No. of Pos.	Gasket Part Number
1	9	747024-3
2	15	747025-3
3	25	745776-3
4	37	745777-3

Female Screwlocks for Metal-Shell and All-Plastic Connectors (HDE, HDF, HDP)

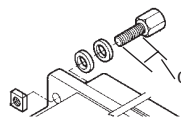
Material and Finish

All Parts — Cold rolled steel, zinc plated clear or yellow chromate

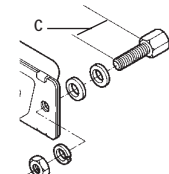
Plugs and Recept. Used with	Style	Dimension C	Thread Size	Kit Number	
				Individual	Bulk Packed
HD All-Plastic Right-Angle	(A)	.250 [6.35]	4-40	207952-1 ¹	—
HD All-Plastic Right-Angle	(A)	.250 [6.35]	4-40	207952-3	—
HDE Metal-Shell or All-Plastic	(B)	.250 [6.35]	4-40	745563-1 ¹	745563-2
HDE Metal-Shell or All-Plastic	(B)	.250 [6.35]	4-40	745563-3	745563-4
HDP or HDP Metal-Shell	(B)	.312 [7.93]	Metric M2.6	749765-3	—
				205817-1 ¹	205817-2 ¹
			Metric M3	205817-3	205817-4
				207872-1 ¹	—
HD or HDF All-Plastic with Integral Standoffs	(B)	.560 [14.22]	4-40	207872-3	—
				207719-1 ¹	—
			2-56	207719-3	207719-4
				747223-3	—

¹Yellow chromate finish, all others clear chromate finish.

Style A



Style B



Individual Screwlocks (Washers & Nuts not included)

Material and Finish

All Parts — Cold rolled steel, zinc plated clear chromate

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Connector Used with	Style	Dimension C	Thread Size	Screwlocks	
				Finish	Individual
HDP or HDF Metal Shell or All-Plastic Plugs and Receptacles	Special	.185 [4.70]	4-40	Clear Chromate	747877-3
	B	.312 [4.70]	Metric M3	Clear Chromate	747404-3
	B	.312 [7.93]	4-40	Yellow Chromate	748270-2

For Complete Product Information, Order Catalog 82068

Hardware

Input/Output Connectors (Continued)

Slide Latches

Material and Finish

Slide Latches — Stainless Steel

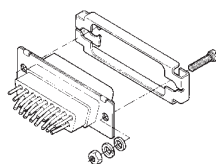
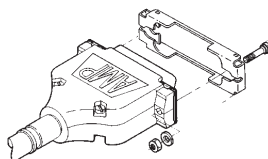
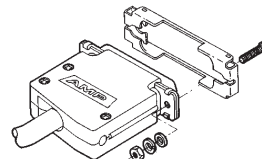
4-40 Screws, Washers and Hex

Nuts — Steel, zinc plated yellow
chromate

2-56 Screws, Washers and Hex

Nuts — Steel, zinc plated clear
chromate

Shell Size	Style	Slide Latch Kit Numbers ¹
1	I	745404-1
2	II	745583-1
	III	745583-5
	III	745583-6 ²
3	II	745584-1
4	III	745584-3
	I	745407-1
5	III	745578-3

¹Individually packaged except as noted²Bulk packagedStyle I
for Shell Sizes 1 and 4Style II
for Shell Sizes 2, 3 and 5Style III
for Shell Sizes 2, 3 and 5Slide Latch Clip Assembly for
Unfiltered Mating Half

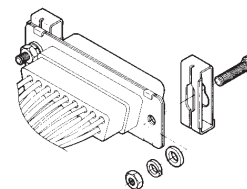
Material and Finish

Screw, Washers and Hex Nut —

Cold rolled steel, zinc plated per
QQ-Z-325

Clip — Stainless steel

Thread Size	Screw Length	Part Number	
		Standard	Bulk Pack
4-40	.415	206942-1 ¹	209942-2
	10.14		
2-56	.547	748078-1	—
	13.89		

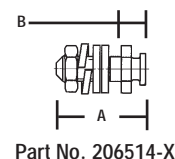
¹Two assemblies per package

Locking Post Assembly

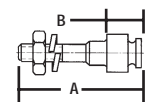
Material and Finish

All Parts — Cold rolled steel, zinc
plated yellow chromate

Thread Size	Locking Post Finish	Dimensions		Locking Post Kit No.	
		A	B	Individual	Bulk Packed
4-40	Yellow	.410	.110	206514-1	206514-3
	Chromate	10.41	2.79		
		.560	.110	206514-6	206514-7
2-56		14.22	2.79		
	Yellow	.615	.172	747242-1	—
	Chromate	15.62	4.37		
	Clear	.615	.172	742242-3	—
	Chromate	15.62	4.37		



Part No. 206514-X



Part No. 747242-X

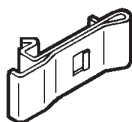
Spring Latches for Cable
Clamps with Mounting Ears
(Two-Piece)

Material

Stainless steel

Part No. 745255-2 (Two/Pack)

Part No. 745255-3 (BulkPacked)



Standard Spring Latches

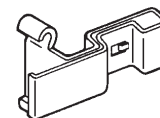
Material

Stainless Steel

Shell Size 1-4:

Part No. 745779-2 (Two/Pack)

Part No. 745779-3 (Bulk Packed)



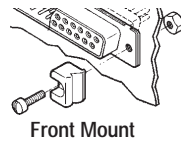
For Complete Product Information, Order Catalog 82068

Hardware

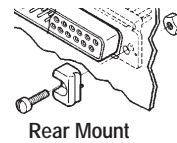
Latching Blocks with Slot
Recess and Thru-Hole

Material and Finish

Zinc

Part No. 747080-2¹ (Individual Pack)¹For Shell Sizes 1 thru 4

Front Mount



Rear Mount

Rear Panel Latching Block		Front Panel Latching Block		Panel Thickness
Individual	Bulk Packed	Individual	Bulk Packed	
747080-2	—	—	—	.090 [2.29]
745245-2	745245-3	—	—	.060 [1.52]
—	—	745286-2	745286-3	—

Latching Blocks, Front Panel
Mount with 4-40 Threaded
Holes

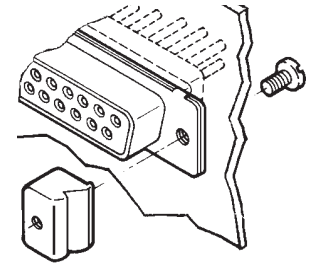
Material and Finish

Zinc

Pan Head Screws — Steel, zinc plated

Part No. 208101-9¹ (Bulk Packed)¹For Shell Sizes 1 thru 4

Dim. B	Thread Size	Rear Panel Latching Block	Front Panel Latching Block	
		Individual	Individual	Bulk Packed
.190 4.83	M3	745403-1	—	—
	Metric	—	—	—
.220 5.59	4-40	745403-8	—	—
	4-40	747717-2	—	—
.250 6.35	M3	—	208101-1	—
	Metric	—	—	—
	4-40	—	208101-8	208101-9

Ferrules for
Shielding Hardware Kits

Material and Finish

Steel (annealed), tin plated

Shell Sizes	Style	Cable Diameter	Part Numbers
1-3	Stepped	.165-.246 [4.19-6.25]	747579-8
1-3	Stepped	.246-.324 [6.25-8.23]	1-747579-0
1-3	Stepped	.324-.375 [8.23-9.53]	1-747579-1
1-3	Straight	.375-.425 [9.53-11.05]	1-747579-2
1-3	Straight	.400-.455 [10.16-11.56]	1-747579-4
4-5	Stepped	.338-.385 [8.59-10.97]	747580-8
4-5	Stepped	.375-.432 [9.53-10.97]	747580-4
4-5	Stepped	.422-.490 [10.72-12.45]	747580-5
4	Straight	.480-.562 [12.19-14.28]	747580-6

Stepped



Straight

AMPLIMITE PCB
ConnectorsHD-22 Front Metal-Shell
Right-Angle Connectors,
.350 [8.89] PCB Footprint

Material and Finish

Housing — 94V-0 thermoplastic, black

Front Shell — Steel, tin plated

Contacts — Pin: Brass, Sockets:
Phosphor Bronze

Plating —

A— .000030 [0.00076] min. gold on
mating end, tin-lead on termination end,
all nickel underplatedB— Gold flash on mating end, tin-lead
on termination end, all nickel underplat-
ed**BLUE** part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

Plug Shell Size	No. Pos.	Plating Code	With Boardlocks	
			With Threaded Inserts	With Fixed Female Screwlocks
1	15	A	749767-1	749768-1
2	26	A	749769-1	—
3	44	A	749771-1	—
4	62	A	749639-1	—
Receptacle Shell Size	No. Pos.	Plating Code	With Boardlocks	
			With Threaded Inserts	With Fixed Female Screwlocks
▲1	15	A	787066-1	—
VESA/VGA		B	787066-2	—
1	15	A	748390-5	748390-6
		B	1-748390-1	1-748390-2
2	26	A	748481-5	748481-6
2	26	A	—	1-748481-9 ¹
3	44	A	748482-5	—
4	62	A	748394-5	748394-6
5	78	A	748483-5	748483-6

▲Standard 15-position receptacle housing material: Thermoplastic
94V-0 Blue.¹Without boardlocks/threaded insert for .125 [3.18] dia. hole.HD-22 Plug
with
4-40 Threaded InsertsHD-22 Plug
with
Female ScrewlocksHD-22 Receptacle
with
4-40 Threaded InsertsHD-22 Receptacle
with
Female Screwlocks

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
ConnectorsHD-22 Front Metal-Shell
Straight Posted Connectors

Material and Finish

Shell — Steel, tin plated

Insert — Thermoplastic, 94V-0, black

Contacts — Pins-Brass, Sockets-
Phosphor bronze, all plated:A— .000030 [0.00076] min. gold on
mating end, tin-lead on termination end,
all over .000050 [0.00127] min. nickel
underplating

Input/Output Connectors (Continued)

Shell Size	No. of Pos.	Plt. Code	Part Numbers			
			Plug with 4-40 Thread Inserts	with 4-40 Thread Inserts	Receptacles with Retention 4-40 Inserts	with Fixed Female Screwlocks
1	15	A	749798-1 ¹	749374-1	749374-3	786356-1
2	26	A	—	749030-1	—	—
4	62	A	749019-1	747786-6 ¹	—	—
5	78	A	—	748831-1	—	—

¹.125 [3.18] post length for pcb .062-.093 [1.58-2.36] max.

Plug



Receptacle

HD-20 Front Metal-Shell
Right-Angle Connectors,
.318 [8.08] PCB Footprint

Material and Finish

Housing — Thermoplastic, 94V-0
rated, compatible with standard wave
solder, black

Shell — Steel, tin plated

Contacts — Plugs - Brass,
Receptacles - Phosphor Bronze

Plating Code —

A— Duplex plated .000030 [0.00076]
min. gold on the mating end, tin-lead on
solder end, all over nickel underplatingB— Duplex plated gold flash on the
mating end, tin-lead on solder end, all
over nickel underplating

Plug Shell Size	No. Pos.	Plt. Code	Without Boardlocks			With Boardlocks		
			With Std. Mtg.	With Thrd. Inserts	With Fixed Female Screwlocks	With Std. Mtg.	With Thrd. Inserts	With Fixed Female Screwlocks
1	9	A	747250-2	747250-4	747250-6	747840-2	747840-4	747840-6
		B	—	747250-3	—	—	747840-3	747840-5
2	15	A	747236-2	747236-4	—	—	747841-4	747841-6
		B	—	747236-3	—	—	747841-3	—
3	25	A	—	747238-4	747238-6	747842-2	747842-4	747842-6
		B	—	—	—	—	747842-3	747842-5
4	37	A	747252-2	747252-4	—	747843-2	747843-4	747843-6

Receptacle Shell Size	No. Pos.	Plt. Code	Without Boardlocks			With Boardlocks		
			With Std. Mtg.	With Thrd. Inserts	With Fixed Female Screwlocks	With Std. Mtg.	With Thrd. Inserts	With Fixed Female Screwlocks
1	9	A	745781-2	745781-4	745781-6	747844-2	747844-4	747844-6
		B	—	745781-3	—	—	747844-3	747844-5
2	15	A	745782-2	745782-4	745782-6	747845-2	747845-4	747845-6
		B	—	—	—	—	747845-3	747845-5
3	25	A	745783-2	745783-4	745783-6	747846-2	747846-4	747846-6
		B	—	745783-3	745783-5	—	747846-3	747846-5
4	37	A	—	745784-4	745784-6	—	747847-4	747847-6

Plug – Threads
with BoardlocksPlug – Female
Screwlocks with
BoardlocksReceptacle with
Threads with
BoardlocksReceptacle with
Female
Screwlocks with
BoardlocksBLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors**HD-20 Front Metal-Shell Straight Posted Connectors****Material and Finish****Shell** — Steel, tin plated**Housing** — Thermoplastic, 94V-0, black**Threaded Inserts** — Brass, unplated**Female Screwlocks** — Zinc**Contacts** — Pins-Brass, Sockets-Phosphor bronze, all plated:**A**— .000030 [0.00076] min. gold on mating end, tin-lead on termination end, all over .000050 [0.00127] min. nickel underplating**B**— Same as A with gold flash on mating end**Input/Output Connectors (Continued)****Plugs**

Shell Size	No. of Pos.	Post Length	Plating Code	Plug Part Numbers			
				With Std. Mounting Holes	With 4-40 Threaded Inserts	With Retention 4-40 Inserts	With Fixed Female Screwlocks
1	9	.125	A	747871-2	747871-8	2-748003-0	1-747871-4
		3.18	B	—	—	—	1-747871-3
		.170	A	747871-4	—	—	1-747871-6
2	15	.125	A	—	747872-8	—	—
		3.18	A	—	747872-4	—	1-747872-6
		.170	A	747872-4	—	—	1-747872-6
3	25	.125	A	745968-2	745968-8	2-747704-3	1-745968-4
		3.18	B	—	745968-7	—	1-745968-3
		.170	A	745968-4	—	—	1-745968-6
4	37	.125	A	747375-2	747375-8	—	—
		3.18	A	747375-2	747375-8	—	—
		.170	A	747375-2	747375-8	—	—



Plug w/4-40 Threaded Inserts



Plug w/Retention Insert



Plug w/Female Screwlock

Receptacles

Shell Size	No. of Pos.	Post Length	Plating Code	Receptacle Part Numbers			
				With Std. Mounting Holes	With 4-40 Threaded Inserts	With Retention 4-40 Inserts	With Fixed Female Screwlocks
1	9	.125	A	747150-2	747150-8	2-747706-0	1-747150-4
		3.18	B	—	747150-7	—	1-747150-3
		.170	A	747150-4	—	—	1-747150-6
2	15	.125	A	747299-2	747299-8	2-747707-0	1-747299-4
		3.18	A	747299-2	747299-8	2-747707-0	1-747299-4
		.170	A	—	1-747299-0	—	—
3	25	.125	A	745697-2	745697-8	2-747708-0	1-745967-4
		3.18	B	—	745967-7	—	—
		.170	A	—	1-745967-0	—	1-745967-6
4	37	.125	A	747301-2	747301-8	2-747709-0	1-747301-4
		3.18	B	—	747301-7	—	—
		.170	A	—	—	—	1-747301-6



Receptacle w/Threaded Inserts



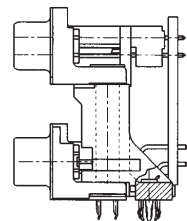
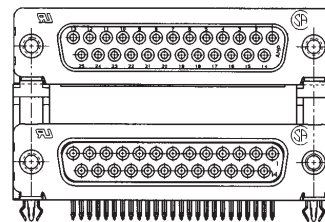
Receptacle w/Fixed Female Screwlocks



Receptacle w/Standard Mtg. Holes

HD-20 Filtered Right Angle Stacked Connector, Front Metal Shell**Material and Finish****Shell** — Steel, tin plated**Housing** — Thermoplastic, 94V-0, black**PC Board** — Glass epoxy, 94V-0 flame retardant**Eyelets** — Brass, plated tin over copper**Threaded Inserts** — Zinc**Boardlocks** — Copper alloy, tin-lead plated**Contacts** — Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, tin-lead on termination end, all over .000030 [0.00076] min. nickel underplating

Receptacle over Receptacle
25-Position over 25-Position
Shell Size 3
Part No. 93544-3



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalogs 82068 and 82795

AMPLIMITE PCB Connectors**HD-20 Front Metal-Shell Right-Angle Connectors, with Boardlocks and Threaded Inserts, .478 [12.14] PCB Footprint****Material and Finish****Housing** — 94V-0 thermoplastic, black**Front Shell** — Steel, tin plated**Eyelets** — Brass, tin plated**Threaded Inserts** — Zinc**Female Screwlock** — Zinc**Boardlocks** — Copper alloy, tin-lead plated**Contacts** — Pin: Brass, Sockets: Phosphor Bronze**Plating** —**A.** .000030 [0.00076] min. gold on mating end, tin-lead on termination end, all nickel underplated**Input/Output Connectors (Continued)**

Shell	No. of	Part Numbers	
		Plugs	Receptacles
1	9	747848-4	747852-4
2	15	—	747853-4
3	25	—	747854-4

**Plug with Grounding Indents & Grounding Straps****Plug With Threaded Inserts****Receptacle with Grounding Straps****Receptacle With Threaded Inserts****HD-20 Front Metal-Shell Right-Angle Connectors, .590 [14.99] PCB Footprint****Material and Finish****Housing** — 94V-0 thermoplastic, black**Front Shell** — Steel, tin plated**Contacts** — Pin: Brass, Sockets: Phosphor Bronze**Plating** —**A.** .000030 [0.00076] min. gold on mating end, tin-lead on termination end, all nickel underplated**Plugs**

Shell Size	No. of Pos	Plating Code	Without Boardlocks		With Boardlocks	
			With Threaded Inserts	Without Threaded Inserts	With Fixed Female Screwlocks	With Fixed Female Screwlocks
1	9	A	745990-4	747832-4	747832-6	—
		B	747990-3	747832-3	—	—
2	15	A	—	747833-4	—	—
3	25	A	—	747834-4	—	—
4	37	A	—	737835-4	—	—

HD-20 Plug with Threaded Inserts**HD-20 Plug with Female Screwlocks****Receptacles**

Shell Size	No. of Pos	Plating Code	Without Boardlocks		With Boardlocks	
			With Threaded Inserts	With Fixed Female Screwlocks	Without Threaded Inserts	With Fixed Female Screwlocks
1	9	A	745988-4	745988-6	747836-4	747836-6
2	15	A	—	—	747837-4	—
3	25	A	745992-4	745992-6	747838-4	747838-6
		B	745992-3	—	747838-3	—
4	37	A	—	—	747839-4	—

HD-20 Receptacle with Threaded Inserts**HD-20 Receptacle with Female Screwlocks****HD-20 Front Metal-Shell Straight Posted Connectors with ACTION PIN Contacts****Material and Finish****Housings** — 94V-0 thermoplastic, black**Threaded Inserts** — Brass, unplated**Female Screwlocks** — Zinc**ACTION PIN Contacts** — Copper alloy, duplex plated as follows:**A.** .000030 [0.00076] gold on mating end, tin-lead on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated**B.** Gold flash on mating end, tin-lead on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

Shell Size	No. of Pos.	Plating Code	Plug Part No.		Receptacle Part No.		
			With Threaded Inserts	With Fixed Female Screwlocks	With Threaded Inserts	With Standard Mounting Holes	With Fixed Female Screwlocks
1	9	A	786830-1	787176-1	747090-2	747089-2	747091-2
2	15	A	—	787177-1	747141-2	747140-2	747142-2
3	25	A	748146-4	748146-6	745925-2	745922-2	745928-2
		B	—	—	—	—	745928-1
4	37	A	786534-1	—	747714-2	—	747715-2
		A	—	—	747144-2	747143-2	747145-2
5	50	B	749892-1	—	—	—	—

HD-20 Plug with Threaded Inserts**HD-20 Receptacle with Fixed Female Screwlocks****BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
ConnectorsHD-20 Full Metal-Shell
Straight Posted Connectors

Material and Finish

Shell — Steel, tin plated**Insert** — Thermoplastic, 94V-0, black**Contacts** — Pins-Brass, Sockets-
Phosphor bronze, all plated:**A**—.000030 [0.00076] min. gold on
mating end, tin-lead on termination end,
all over .000050 [0.00127] min. nickel
underplating**B**— Same as A with gold flash on mat-
ing end

Input/Output Connectors (Continued)

Shell Size	No. of Pos	Post Length	Plating Code	Part Numbers		
				Plugs With Grounding Indents	Receptacles With Mounting Holes	With Clinch Nuts
1	9	.125	A	745410-1	745183-1	747190-2
		3.18	B	—	745183-2	747190-1
		.188 4.78	A	745410-7	745183-7	—
2	15	.125	A	745411-1	745185-1	745820-1
		3.18	B	—	—	745820-2
		.188 4.78	A	—	745185-7	—
3	25	.125	A	745412-1	745187-1	745886-1
		3.18	B	—	—	745886-2
		.188 4.78	A	745412-7	745187-7	—
4	37	.125	A	745313-1	745189-1	747315-1
		3.18	B	—	745189-7	—
		.188 4.78	A	—	745189-7	—
5	50	.125	A	745414-1	745191-1	747302-1
		3.18	B	—	745191-7	—
		.188 4.78	A	745414-7	745191-7	—



Plug
(Shown with grounding indents for
illustration purposes only)



Receptacle



Clinch Nut

HD-20 Full Metal-Shell
Right-Angle Posted Connectors
454 Mount

Material and Finish

Shell — Steel, tin plated**Insert** — 94V-0 rated thermoplastic,
black**Contacts (Posted)** — Zinc**Pin** — Brass**Socket** — Phosphor Bronze**Contact Plating** —**A**—.000030 [0.00076] gold on mating
end, tin-lead on termination end, with
entire contact nickel underplated

Receptacle Shell Size	No. Pos.	Plating Code	With Boardlocks
			Part Number
1	9	A	745438-4

Note:

All receptacles are preloaded with size 20 DF posted
socket contacts. .125 [3.18] post length is recommended
for pc board thickness of .093 [2.36] max.; .220 [5.59]
post length is recommended for pc board thickness of
.125 [3.18] max.



Receptacle

HD-20 Full Metal-Shell
Right-Angle Posted Connectors
545 Mount

Material and Finish

Shell — Steel, tin plated**Insert** — 94V-0 rated thermoplastic,
black**Female Screwlock** — Steel, zinc
plated**Pin** — Brass**Socket Contacts (Posted)** —
Phosphor Bronze, duplex plated as fol-
lows:**A**—.000030 [0.00076] gold on mating
end, tin-lead on termination end, with
entire contact nickel underplated**B**—Gold flash on mating end, tin-lead
on termination end, with entire contact
nickel underplated

Plugs

Shell Size	No. Pos.	Plating Code	Plug Part Numbers	
			With Standard Mounting Screws	With Female Screwlocks
1	9	A	745351-4	—
2	15	A	745352-4	—
3	25	A	745353-4	—
4	37	A	745354-4	—
5	50	A	745355-4	747497-4
		B	—	747497-3

Receptacles

Shell Size	No. Pos.	Plating Code	Receptacle Part Numbers	
			With Standard Mounting Screws	With Female Screwlocks
1	9	A	745112-2	747020-2
2	15	A	745113-2	747021-2
3	25	A	745114-2	745536-2
4	37	A	745115-2	—
5	50	A	745116-2	747193-2
		B	745116-1	747193-1

Notes:

1. All receptacles are preloaded with size 20 DF posted socket contacts.

For Complete Product Information, Order Catalog 82068



**Plug with Standard
Mounting Screws**



**Plug with Female
Screwlocks**



**Receptacle with Standard
Mounting Screws**

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

AMPLIMITE PCB Connectors

HD-20 Solder Cup Connectors

Material and Finish

Shell — Steel, tin or zinc plated

Insert — 94V-0 rated thermoplastic, black

Contacts — Phosphor bronze, duplex plated with gold flash on mating end, tin-lead on solder cup, with entire contact nickel underplated

Input/Output Connectors (Continued)

Shell Size	No. of Contact Positions	Plug Part Numbers		Receptacle Part Numbers	
		Tin Plated Shell	Zinc Plated Shell	Tin Plated Shell	Zinc Plated Shell
1	9	747904-2	747904-4	747905-2	747905-4
2	15	747908-2	747908-4	747909-2	—
3	25	747912-2	747912-4	747913-2	747913-4
4	37	747916-2	747916-4	747917-2	—



Plug



Receptacle

HD-20 Solder Cup Shielding Hardware Enclosure Kits

Material and Finish

Connector Shell — Steel, tin plated

Connector Insert — 94V-0 rated thermoplastic, black

Enclosure — PVC, Black

Shields — Steel, tin plated

Contacts — Phosphor bronze, duplex plated with gold flash on mating end, tin-lead on solder cup, with entire contact nickel underplated

Shell Size	No. of Contact Positions	Kit Numbers		
		Plug with Enclosure	Receptacle with Enclosure	Receptacle without Enclosure
1	9	748046-1	748047-1	—
2	15	748048-1	748049-1	748040-1
3	25	748050-1	748051-1	—
4	37	748052-1	—	—

Note:

Components of the kits are shipped unassembled and bulk-packaged in quantities of 100 pieces.



Plug with Enclosure



Receptacle without Enclosure



Receptacle with Enclosure

HD-20 All-Plastic Right-Angle Posted Connectors 318 Mount

Material and Finish

Housings — 94V-0 thermoplastic, black

Threaded Inserts — Zinc, chromate coated

Female Screwlocks — Zinc, chromate coated

Socket Contacts (Posted) — Phosphor bronze, duplex plated as follows:

A— .000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

B— Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated

Shell Size	No. Pos.	Plating Code	Receptacles with Boardlocks		Receptacles without Boardlocks		
			With Threaded Inserts	With Fixed Female Screwlocks	With Threaded Inserts	With Fixed Female Screwlocks	With Std. Mtg. Holes
1	9	A	—	748979-1	745394-2	745395-2	—
		B	—	—	—	—	745131-1
2	15	A	—	—	—	745396-2	745271-2
3	25	A	748901-1	748981-1	745392-2	745397-2	745132-2

Notes:

1. All receptacles are preloaded with size 20 DF posted socket contacts.
2. Recommended pc board thickness is .093 [2.36] max.
3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors

HD-20 All-Plastic Right-Angle Posted Connectors 590 Mount

Material and Finish

Housings — 94V-0 thermoplastic, black

Threaded Inserts — Zinc, chromate coated

Female Screwlocks — Zinc, chromate coated

Socket Contacts (Posted) — Phosphor bronze, duplex plated as follows:

A—.000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

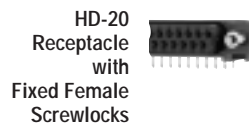
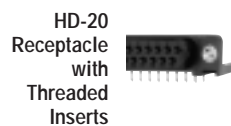
B—Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated

Input/Output Connectors (Continued)

Shell Size	No. Pos.	Plating Code	Receptacles with Boardlocks	Receptacles Without Boardlocks		
			With Fixed Female Screwlocks	With Threaded Inserts	With Fixed Female Screwlocks	With Std. Mtg. Holes
1	9	A	—	747459-4	747459-6	747459-2
		B	—	747459-3	—	747459-1
2	15	A	—	—	—	747460-2
		B	—	747460-3	747460-5	—
3	25	A	747989-1	747461-4	747461-6	747461-2
		B	—	747461-3	747461-5	747461-1
4	37	A	—	747462-4	—	747462-2

Notes:

1. All receptacles are preloaded with size 20 DF posted socket contacts.
2. Recommended pc board thickness is .093 [2.36] max.
3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.



HD-20 All-Plastic Right-Angle Posted Connectors 590 Mount

Material and Finish

Housing — 94V-0 rated thermoplastic, black

Threaded Inserts — Zinc, chromate coated

Female Screwlock — Zinc, chromate coated

Pin Contacts (Posted) — Brass, duplex plated as follows:

A—.000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

Shell Size	No. Pos.	Plating Code	Plugs with Boardlocks	Plugs Without Boardlocks		
			With Fixed Female Screwlocks	With Threaded Inserts	With Fixed Female Screwlocks	With Std. Mtg. Holes
1	9	A	—	747467-4	—	—
		B	—	—	—	747467-1
2	15	A	—	748872-1	748952-1	747468-2
		B	—	—	747468-5	—
3	25	A	—	748873-1	—	748826-1
		B	748913-2	—	—	748826-2
4	37	A	—	—	—	747470-2

Notes:

1. All receptacles are preloaded with size 20 DF posted socket contacts.
2. Recommended pc board thickness is .093 [2.36] max.
3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

HD-20 Plug with Standard Mounting Holes



HDJ-20 All-Plastic Right-Angle Posted Plug Connectors, 590 Mount (For PC Board Mount and Cord Guard Latch)

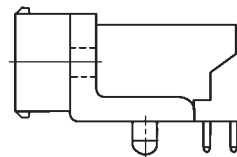
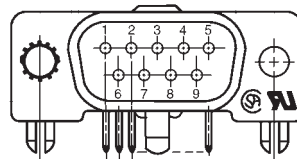
Material and Finish

Housing and Post Spacer — 94V-0 rated thermoplastic, black

Pin Contacts (Posted) — Brass, duplex plated as follows:

A—.000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

B—Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated



Plating	Part Number with .125 [3.18] Dia. Mounting Holes
A	745001-2
B	745001-3

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
ConnectorsHD-20 All-Plastic Straight
Posted Connectors

Material and Finish

Housings — 94V-0 thermoplastic, black

Threaded Inserts — Brass, unplated

Female Screwlocks — Brass, nickel plated

Pin/Socket Contacts Posted) —

Brass, plated as follows:

A—.000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

B—Gold flash on mating end, tin-lead on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

Input/Output Connectors (Continued)

Shell Size	No. Pos.	Post Length	Plating Code	Plug Part Numbers		
				With Standard Mounting Holes	With Threaded Inserts	With Fixed Female Screwlocks
1	9	.125	A	208006-2	745051-2	745071-2
		3.18	B	—	745051-1	745071-1
		.170	A	—	745051-4	745071-4
2	15	4.32	A	—	—	—
		.125	A	208007-2	745052-2	745072-2
		3.18	B	208007-1	745052-1	—
3	25	.170	A	—	—	745072-4
		4.32	A	—	—	—
		.125	A	208008-2	745053-2	745073-2
4	37	3.18	B	208008-1	—	745073-1
		.170	A	208008-4	—	745073-4
		4.32	B	—	—	745073-3
5	50	.125	A	—	—	745074-2
		3.18	B	—	—	745074-1
		.170	A	—	—	745074-4
		4.32	A	—	—	—
		.125	A	208010-2	—	—
		3.18	B	208010-1	—	—

Notes:

1. All plugs are preloaded with size 20 DF posted pin contacts.
2. Recommended pc board thickness is .062-.093 [1.58-2.36] max. for .125 [3.18] post length.
3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Shell Size	No. Pos.	Post Length	Plating Code	Receptacle Part Numbers		
				With Standard Mounting Holes	With Threaded Inserts	With Fixed Female Screwlocks
1	9	.125	A	207826-4	207841-4	745076-4
		3.18	B	207826-3	207841-3	745076-3
		.170	A	—	—	745076-6
2	15	4.32	B	—	—	745076-5
		.125	A	207827-4	745057-4	745077-4
		3.18	B	207827-3	745058-3	745077-3
3	25	.170	A	207827-6	—	745077-6
		4.32	B	—	—	745077-5
		.125	A	207828-4	745058-4	745078-4
4	37	3.18	B	207828-3	745058-3	745078-3
		.170	A	207828-6	745058-6	745078-6
		4.32	B	207828-5	—	745078-5
5	50	.125	A	207829-4	745059-4	745079-4
		3.18	B	207829-3	—	—
		.170	A	—	—	745079-6
		4.32	A	—	—	—
		.125	A	207830-4	—	745080-4
		3.18	A	—	—	—

Notes:

1. All receptacles are preloaded with size 20 DF posted socket contacts.
2. Recommended pc board thickness is .062-.093 [1.58-2.36] max. for .125 [3.18] post length; .093-.125 [2.36-3.18] for .170 post length.
3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.



HD-20 Plug with Standard Mounting Holes



HD-20 Plug with Threaded Inserts



HD-20 Plug with Fixed Female Screwlocks



HD-20 Receptacle with Standard Mounting Holes



HD-20 Receptacle with Threaded Inserts



HD-20 Receptacle with Fixed Female Screwlocks

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors**HD-20 All-Plastic Straight Posted Connectors with ACTION PIN Contacts****Material and Finish**

Housing — 94V-0 rated thermoplastic, black

Threaded Inserts — Brass, unplated

Female Screwlocks — Brass, nickel plated

ACTION PIN Contacts — Copper alloy, duplex plated as follows:

A—.000030 [0.00076] gold on mating end, tin-lead on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

Input/Output Connectors (Continued)

Shell Size	No. of Pos.	Profile	Plating Code	.093 [2.36] (min.) Thk. PC Boards			.062 [1.57] (min.) Thk. PC Boards	
				With Std. Mounting Holes	With Threaded Inserts	With Fixed Female Screwlocks	With Std. Mounting Holes	With Threaded Inserts
1	9	Low	A	—	—	745454-2	—	—
		High	A	—	745463-2	745455-2	—	—
2	15	Low	A	745336-2	—	—	—	—
		High	A	—	—	—	—	545612-2
3	25	Low	A	—	—	745458-2	—	—
4	37	Low	A	745337-2	—	745459-2	745589-2	—

Notes:

1. All receptacles are preloaded with straight posted ACTION PIN socket contacts.
2. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

HD-20 Receptacle with Fixed Female Screwlocks (Shown)**AMPLIMITE III, HD-20 Front Metal-Shell Right-Angle Connectors, .318 [8.08] PCB Footprint****Material and Finish**

Housing — Thermoplastic, 94V-0 rated, compatible with standard wave solder, vapor phase, and infra red reflow (SMT), black

Shell — Steel, tin plated

Contacts — Plugs- Brass, Receptacles - Phosphor Bronze

Plating Code —

A— Duplex plated .000030 [0.00076] min. gold on the mating end, tin-lead on solder end, all over nickel underplating

B— Duplex plated gold flash on the mating end, tin-lead on solder end, all over nickel underplating

Plug Shell Size	No. Pos.	Plating Code	With Boardlocks	
			With Threaded Inserts	With Fixed Female Screwlocks
1	9	A	748879-1	748959-1
		B	748879-2	748959-2
3	25	A	748881-1	748961-1

Receptacle Shell Size	No. Pos.	Plating Code	With Boardlocks		Without Boardlocks
			With Threaded Inserts	With Fixed Female Screwlocks	With Fixed Female Screwlocks
1	9	A	748875-1	748955-1	748915-1
		B	748875-2	748955-2	—
2	15	A	748876-1	748956-1	—
		B	748876-2	—	—
3	25	A	748877-1	748957-1	—
		B	748877-2	748957-2	—
4	37	A	748878-1	—	—

*15-Pos. Receptacle Part No. 748836-1 without boardlocks, with threaded inserts also available.

Plug with 4-40 Threaded Inserts



Plug with Female Screwlocks



Receptacle with 4-40 Threaded Inserts



Receptacle with Female Screwlocks



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
ConnectorsHDE-20 All Plastic IDC
Connectors

Material and Finish

Housing — 94V-0 rated thermoplastic, black

Contact — Phosphor bronze

Contact Finish — Duplex plated:

A — .000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

B — Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated

Input/Output Connectors (Continued)

Shell Size	No. of Pos.	Plating Code	Plug Part Nos.		Receptacle Part Nos.	
			Contact Identification No. 1 ¹	Contact Identification No. 2 ²	Contact Identification No. 1 ¹	Contact Identification No. 2 ²
1	9	A	—	745203-2	—	745201-2
		B	—	745203-5	—	745201-5
2	15	A	—	745207-2	—	745205-2
		B	—	745207-5	—	—
3	25	A	745211-1	745211-2	745209-1	745209-2
		B	—	—	—	—
4	37	A	—	745215-2	—	745213-2
		B	—	—	—	—

¹For 30-26 AWG [0.05-0.15 mm²] wire.

²For 26-22 AWG [0.15-0.4 mm²] wire.

Notes:

1. All connectors are preloaded with insulation displacement crimp contacts. Pins in plug connectors and sockets in receptacle connectors.
2. HDE connectors are designed for terminating solid or stranded wire.
3. Individual connector strands should be larger than .005-inc. [0.127] diameter.
4. Extraction tool part no. 91232-1 is used to remove pin or socket contacts.



Plug



Receptacle

HDE-20 Metal-Shell IDC
Connectors

Material and Finish

Shell — Steel, tin plated

Insert — 94V-0 rated thermoplastic, black

Contacts — Phosphor bronze

Contact Finish — Duplex plated:

A — .000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

B — Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated

Plugs

Shell Size	No. Pos.	Plating Code	Contact Identification No. 1 for 30-26 AWG [0.05-0.15mm ²] Wire	Contact Identification No. 2 for 26-22 AWG [0.15-0.4mm ²] Wire	Contact Identification No. 3 for 22-20 AWG [0.4-0.6mm ²] Wire
			Plug	Plug	Plug
1	9	A	745492-1	745492-2	745492-3
		B	—	745492-5	745492-6
2	15	A	745494-1	745494-2	—
		B	—	745494-5	745494-6
3	25	A	745496-1	745496-2	745496-3
		B	745496-4	745496-5	745496-6
4	37	A	745498-1	745498-2	—
		B	—	745498-5	—

Notes:

1. All connectors are preloaded with insulation displacement crimp contacts. Pins in plug connectors and sockets in receptacle connectors.
2. Connectors can be made available with clinch nuts, contact AMP.
3. HDE connectors are designed for terminating solid or stranded wire.
4. Individual connector strands should be larger than .005-inc. [0.127] diameter.
5. Extraction tool part no. 91232-1 is used to remove pin or socket contacts.



Plug

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors**HDE-20 Metal-Shell IDC Connectors****Material and Finish****Shell** — Steel, tin plated**Insert** — 94V-0 rated thermoplastic, black**Contacts** — Phosphor bronze**Contact Finish** — Duplex plated:**A** — .000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated**B** — Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated**Input/Output Connectors (Continued)****Receptacles**

Shell Size	No. Pos	Plating Code	Contact Identification No. 1 for 30-26 AWG [0.05-0.15mm ²] Wire	Contact Identification No. 2 for 26-22 AWG [0.15-0.4mm ²] Wire	Contact Identification No. 3 for 22-20 AWG [0.4-0.6mm ²] Wire
			Receptacle	Receptacle	Receptacle
1	9	A	745491-1	745491-2	745491-3
		B	—	745491-5	—
2	15	A	745493-1	745493-2	745493-3
		B	—	745493-5	745493-6
3	25	A	745495-1	745495-2	745495-3
		B	—	745495-5	—
4	37	A	745497-1	745497-2	—
		B	—	745497-5	—

Notes:

1. All connectors are preloaded with insulation displacement crimp contacts. Pins in plug connectors and sockets in receptacle connectors.
2. Connectors can be made available with clinch nuts, contact AMP.
3. HDE connectors are designed for terminating solid or stranded wire.
4. Individual connector strands should be larger than .005-inc. [0.127] diameter.
5. Extraction tool part no. 91232-1 is used to remove pin or socket contacts.



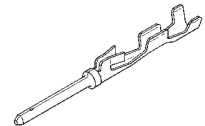
Receptacle

HDE-20 Interchangeable Contacts, Precision Formed, Crimp Snap-in**Material and Finish****Contacts** — Phosphor bronze**Contact Finish** — Duplex plated:

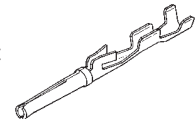
.000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated

Wire Size Range AWG mm ²	Insulation Dia.		Pin		Socket Loose
	Single Wire	Two Wire	Strip	Loose	
26-22	.054	.093	745266-2	—	745269-3
0.15-0.4	1.37	0.99			
22-18	.075	.054	—	745267-3	—
0.4-0.8	1.91	1.37			

Pin



Socket

**HDE-20 Basic Shielding Hardware Kits****Material and Finish****Connector Shell** — Steel, tin plated**Connector Insert** — 94V-0 rated thermoplastic, black**Shield** — Steel, tin plated**Contacts** — Phosphor bronze**Contact Finish** — Duplex plated:**A** — .000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplated**B** — Gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated**Plugs**

Shell Size	No. Pos.	Plating Code	Contact Identification No. 2 for 26-22 AWG [0.15-0.4 mm ²] Wire	Contact Identification No. 3 for 22-20 AWG [0.4-0.6 mm ²] Wire
			Plug	Plug
1	9	A	747515-2	747515-3
2	15	A	747531-2	—
3	25	A	747547-2	—

Plug

**Receptacles**

Shell Size	No. Pos.	Plating Code	Contact Identification No. 1 for 30-26 AWG [0.05-0.15 mm ²] Wire	Contact Identification No. 2 for 26-22 AWG [0.15-0.4 mm ²] Wire
			Receptacle	Receptacle
1	9	A	747516-1	—
		B	—	747516-5
3	25	A	—	747548-2
		B	—	747548-5

Receptacle

**BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors**HDE-20 Basic Shielding Hardware Kits with Enclosure****Material and Finish****Connector Shell** — Steel, tin plated**Connector Insert** — 94V-0 rated thermoplastic, black**Shield** — Steel, tin plated**Enclosure** — PVC, black**Jack screws** — Zinc alloy**Contacts** — Phosphor bronze**Contact Finish** — Duplex plated:**A** — .000030 [0.00076] gold on mating end, tin-lead on termination end, with entire contact nickel underplate**B** — Gold flash on mating end, tin-lead on solder end, all nickel underplate**Input/Out Connectors (Continued)**

Shell Size	No. of Pos.	Plating Code	Kit Part Numbers			
			Plugs		Receptacles	
			Contact I.D. No. 1 for 30-26 AWG [0.05-0.15 mm ²]	Contact I.D. No. 2 for 26-22 AWG [0.15-0.4 mm ²]	Contact I.D. No. 1 for 30-26 AWG [0.05-0.15 mm ²]	Contact I.D. No. 2 for 26-22 AWG [0.15-0.4 mm ²]
1	9	A	747944-1	747944-2	747943-1	747943-2
		B	—	747944-5	—	—
2	15	A	747946-1	747946-2	747945-1	747945-2
		B	747948-1	—	—	747947-2
3	25	A	—	747948-5	—	747947-5
		B	747950-1	—	—	—
4	37	A	—	747950-5	—	—
		B	—	—	—	—



Plug



Receptacle

AMPLIMITE 2000 Right-Angle Subminiature D Connectors, .318 [8.08] PCB Footprint**Material and Finish****Housings** — Thermoplastic, 94V-0 rated, black**Shell** — Steel, plated .000150 [0.00381] min. tin over .000100 [0.00254] min. copper**Contacts** — Pin: Brass, Socket: Phosphor Bronze, Both plated:**A** — Gold flash on mating end, tin-lead on solder end, all nickel underplate**B** — .000030 [0.00076] min. gold on mating end, tin-lead on solder end, all nickel underplate**Boardlocks and 4-40 Threads** — Steel, integral part of front metal-shell**Female Screwlocks** — Zinc, clear chromate

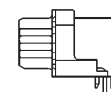
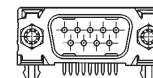
Post Length	Plt. Code Inserts	Part No. ¹	
		4-40 Threads	Female Screwlocks
.125	A	787203-1	787650-1
3.18	B	787203-2	—
.085	A	787203-3	—
2.16	B	—	787650-4

¹Shell size 1

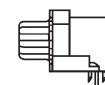
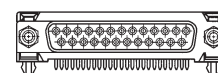
Post Length	Plt. Code Inserts	Part No. ¹	
		4-40 Threads	Female Screwlocks
.125	A	787202-1	—
3.18	B	787202-2	787652-2
.085	A	—	787652-3
2.16	B	—	—

¹Shell size 3

9-Pos. Plug



25-Pos. Receptacle

**Stacked, Hi-Rise Receptacles:****Material and Finish****Housing** — Thermoplastic, 94V-0**Part No. 787812-1: Hi-Rise, 25-Position Assembly****BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.**For Complete Product Information, Order Catalog 82068**

AMPLIMITE PCB Connectors

Unshielded Cable Clamps

One-Piece, All-Plastic Cable Clamp for Jacketed Cable, 180°/120° Exit (HDP and HDE) (Quik-Snap)

Material and Finish

Cover — Polypropylene, black

Strain Relief Clip — Stainless steel

Retainer Clip — Stainless steel

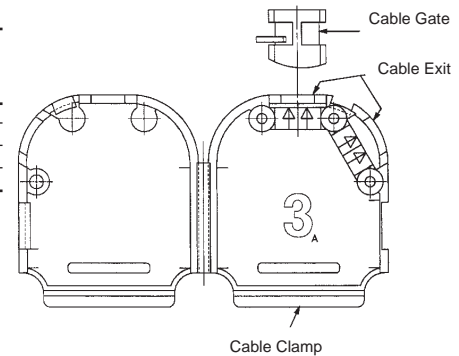
Screws — Carbon steel, zinc plated

Input/Output Connectors (Continued)

Shell Size	Cable Dia. Range	Kit No. with Screws/Retainer Clips	
		Individual	Bulk Pack
1	.075-.250 [1.91-6.36]	749914-2	714914-1
2	.170-.380 [4.32-9.65]	745915-2	—
3	.180-.460 [4.57-11.68]	749626-2	—
4	.250-.550 [6.35-13.97]	749916-2	—

Each kit contains:

- 1-Hinged, plastic clamp
- 2-Self-tapping screws
- 1-Strain relief clip
- 1-Cable exit gate plug (used to close unused exit)



One-Piece, All-Plastic Cable Clamp for Jacketed Cable, 180°/120° Exit HDE-20 Connector

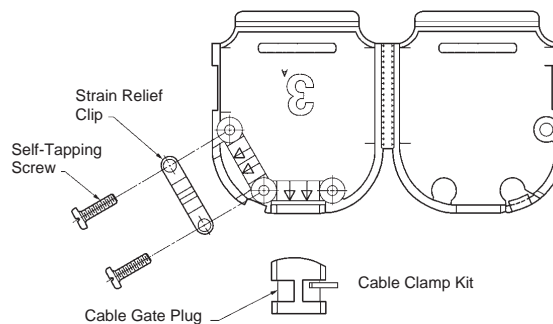
Material and Finish

Cover — Polypropylene, black

Retention Screws — Steel, zinc plated

Retainer Clip — Stainless steel

Self-Tapping Screws — Steel, zinc plated



Each kit contains:

- 1-Hinged, plastic clamp
- 2-Retention screws
- 2-Retention clips
- 1-Cable gate plug
- 2-Self-tapping screws
- 1-Strain relief clip
- 1-Connector and Contacts

Shell Size	Cable Dia. Range	HDP-20 Connectors		HDE-20 Connectors		Packaging
		Plug Kit Part No.	Receptacle Part No.	Plug Kit Part No.	Receptacle Part No.	
1	.075-.259 [1.91-6.35]	749908-1	—	—	—	100/Pack
		749808-4	—	—	—	25/Pack
2	.170-.380 [4.32-9.65]	749808-2	—	749809-2	—	100/Pack
		749808-5	—	—	—	25/Pack
3	.180-.460 [4.58-11.68]	749808-3	749812-3	749809-3	749813-3	100/Pack
		749808-6	—	—	—	25/Pack

Straight Exit Low Profile for Jacketed Cable

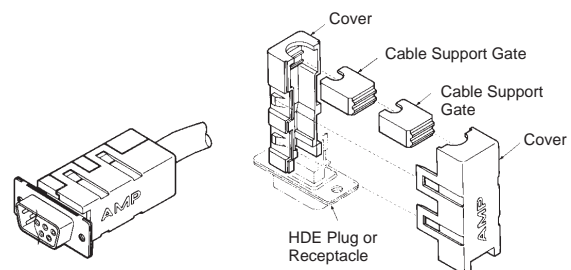
Material and Finish

Black, thermoplastic

Shell Size	Cable Dia. Max.	Cable Clamp Kit No.	
		Individual	Bulk
1	.330 [8.38]	745547-1	745547-2
2	.425 [10.8]	745553-1	—
3	.550 [13.97]	745560-1	745560-2

Notes:

1. All parts are packaged unassembled.
2. Each kit is comprised of two cover halves and an assortment of cable support gates.
3. Cable support gate must be used as shown for small diameter cable.



For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors

90° Exit Low Profile for Jacketed Cable

Material and Finish

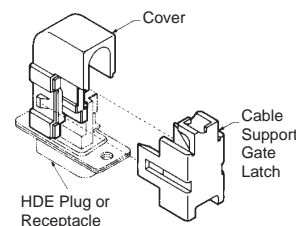
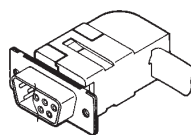
Black, thermoplastic

Input/Output Connectors (Continued)

Shell Size	Cable Dia. (Max.)	Cable Clamp Kit No. Individual
1	.330 [0.84]	745550-1

Notes:

1. All parts are packaged unassembled.
2. Each kit is comprised of a cover half and an assortment of cable support gate latches.



Straight 90° Exit

Material and Finish

Cable Clamp Housing — Thermoplastic, gray

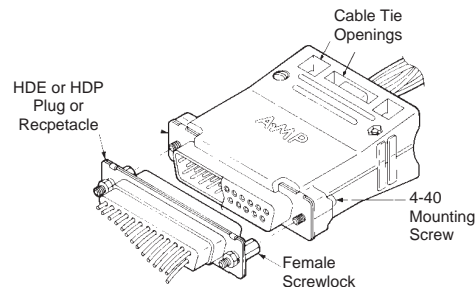
4-40 Mounting Screws — Steel, zinc plated

4-40 Housing Screws & Hex Nut — Steel, zinc plated

Shell Size	Cable Dia. (Max.)	Cable Clamp Kit Numbers	
		Individual	
2	.350 [0.89]	206471-1	
3	.335 [0.85]	206472-1	
3	.460 [11.68]	745134-1	
4	.675 [1.71]	745081-1	
5	.775 [1.97]	745082-1	

Notes:

1. All parts are packaged unassembled.
2. Straight or 90° cable exit is achieved by inserting AMP-TY Cable Ties through cable tie openings and clamping the cable to one housing half only.



Slide-On Back Covers

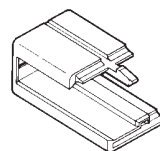
Material and Finish

Black thermoplastic

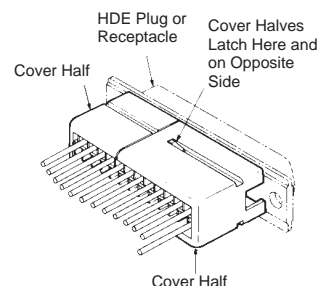
Shell Size	Back Cover Kit Number Individual
1	745530-1
2	745530-2
3	745530-3
4	745530-4

Notes:

1. All parts are packaged unassembled.
2. Each slide-on back cover kit includes two identical cover halves which snap together over the connector.



Back Cover Half



Box and Lid Straight/90° Exit

Material and Finish

Cable Clamp Housing — Thermoplastic, black with textured finish

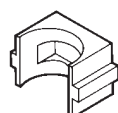
Gates — Thermoplastic, black

Flat Head Screws — Steel, black, zinc plated

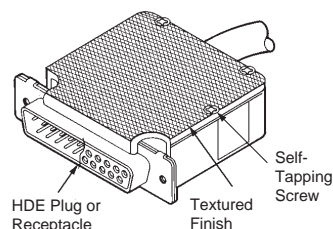
Shell Size	Cable Dia. Max. (Ref.)		Cable Clamp Kit Number	
	Straight Cable	90° Cable	Individual	Bulk Packed
1	.160 4.06	.160 4.06	207467-1	207467-2
2	.320 8.13	.320 8.13	207470-1	—
3	.390 9.91	.390 9.91	207345-1	—
4	.640 16.26	.405 10.29	207473-1	207473-2

Notes:

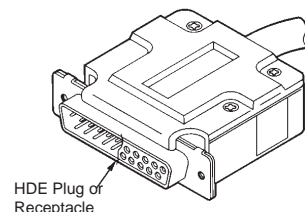
1. All parts are packaged unassembled.
2. Cable diameter is adjustable by changing cable support gates. Use flat side of cable support gates for discrete wire, and the semicircle side for jacketed cable.
3. Cable clamp assemblies are available in kits with male screw retainers.



Typical Cable Support Gate (supplied with Cable Clamp Kit)



Shell Size 1 & 2



Shell Size 3, 4 & 5

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors**Box and Lid Straight/90° Exit Cable Clamp Kits with Male Screw Retainers****Material and Finish****Cable Clamp Housing** —

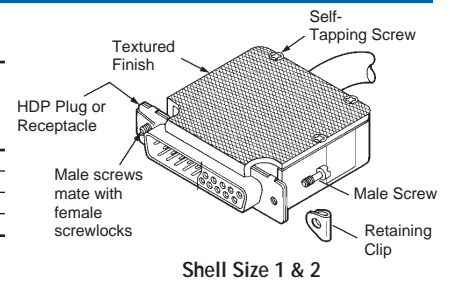
Thermoplastic, black with textured finish

Gates — Thermoplastic, black**Flat Head Screws** — Steel, black, zinc plated**Male Screw** — Steel, zinc plated yellow chromate**Retaining Clip** — Stainless steel**Input/Output Connectors (Continued)**

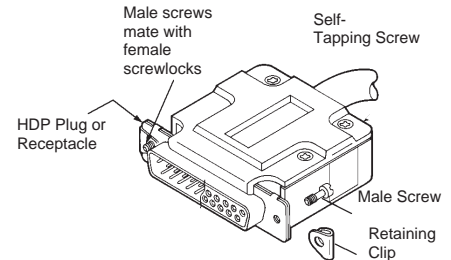
Shell Size	Cable Clamp Kit Number	
	Individual	Bulk Packaged
1	207908-1	207908-2
2	207908-4	—
3	207908-7	207908-8
4	1-207908-0	—

Notes:

1. All parts are packaged unassembled.
2. Each slide-on back cover kit includes two identical cover halves which snap together over the connector.



Shell Size 1 & 2



Shell Size 3, 4 & 5

Clam Shell Straight/45° Exit**Material and Finish****Cable Clamp Housing** —

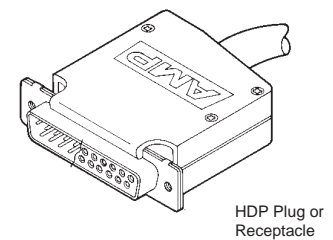
Thermoplastic, black with textured finish

Gates — Thermoplastic, black**Pan Head Screws, 6-32 Set Screw and 6-32 Square Nut** — Steel, zinc plated (sizes 1 and 2 include self-tapping screws only)

Shell Shell	Cable Dia. (Max.)	Short Cable Clamp Kit Number	Standard Cable Clamp Kit Number	
		Individual	Individual	Bulk Packed
1	.256 6.30	—	205729-1	205729-3
2	.320 8.13	206393-1	—	—
2 ¹	.320 8.13	—	205730-1	205730-3
3 ¹	.420 10.67	206390-1	—	—
3	.420 10.67	—	205718-1	205718-4
4	.490 12.45	—	205731-1	—
5	.600 15.24	—	205732-1	—

¹Small housing**Notes:**

1. All parts are packaged unassembled.
2. Cable clamp assemblies are available in kits with male screw retainers.



HDP Plug or Receptacle

Clam Shell Straight/45° Exit Cable Clamp Kits with Male Screw Retainers**Material and Finish****Cable Clamp Housing** —

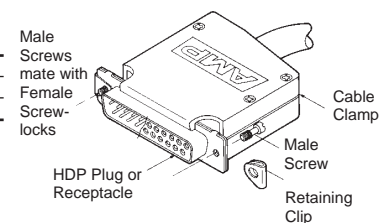
Thermoplastic, black with textured finish

Gates — Thermoplastic, black**Pan Head Screws, 6-32 Set Screw and 6-32 Square Nut** — Steel, zinc plated (sizes 1 and 2 include self-tapping screws only)**Male Screw** — Steel, zinc plated yellow chromate**Retaining Clip** — Stainless steel

Shell Size	Short Cable Clamp Kit Number		Standard Cable Clamp Kit Number
	Individual	Bulk Packed	Individual
1	—	—	206478-1
2	—	—	206478-2
3	1-206478-2	—	206478-3

Notes:

1. All parts are packaged unassembled.
2. Each kit is comprised of a cable clamp and male screw retainer hardware (2 each). Male screw retainers are also available in kit form.
3. For ordering cable clamps separately, see above.



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB Connectors

Straight/90° Exit

Material and Finish

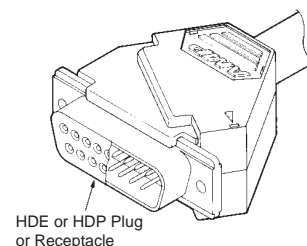
Black thermoplastic

Input/Output Connectors (Continued)

Shell Size	Cable Dia.	Cable Clamp Kit Number
		Individual
3	.550	745306-1
4	.750	745311-1

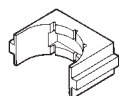
Notes:

1. All parts are packaged unassembled.
2. Each cable clamp assembly includes a yoke, male panel, female panel and four cable support gates. The cable diameter is adjustable by changing the cable support gates.

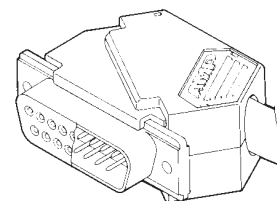


HDE or HDP Plug or Receptacle

Straight Cable Exit Application



Typical Cable Support Gate



90° Cable Exit Application

Straight Exit Dataphone

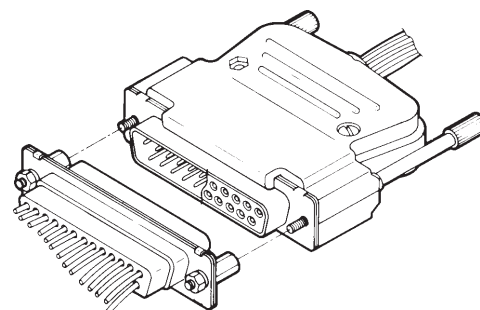
Material and Finish

Cable Clamp Housing — Polyester, black

Jackscrews — Steel, black zinc plated

4-40 Fillister Head Screws & Hex Nuts — Steel, clear zinc plated

Shell Size	Max. Cable Dia. (without Gate)	Cable Clamp Kit Part No.
2	.400 10.16	745122-2
3	.500 12.7	745121-2



Universal Cable Clamp for Jacketed Cable

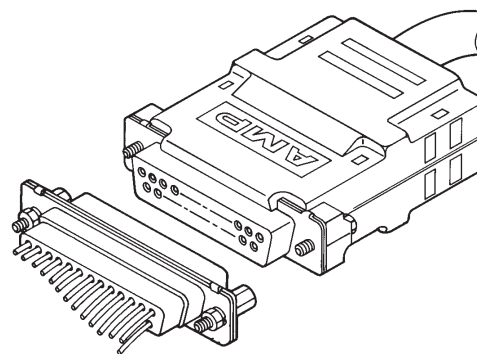
Material and Finish

Cable Clamp Housing — Thermoplastic, black

Cable Clamp Wedge Set — Thermoplastic, black

4-40 Mounting Screws — Steel, zinc plated

For Shell Size 3
Cable Dia. Range .190-.530 [4.83-13.46]
Individual Kit Part No. 747824-1



For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
Connectors

Shielded Cable Clamps

Straight Exit RFI/EMI Shields
for Jacketed Cable (Two-
Piece)

Material and Finish

Die Cast Shield — Zinc alloy, plated
bright nickel over bright copper

Metal-Plated Plastic Shield —
Thermoplastic, plated nickel over copper

Plastic Shield — Thermoplastic,
black

**4-40 Fillister Head Screws and
Hex Nuts** — Steel, zinc plated

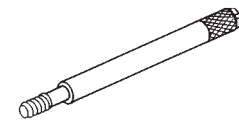
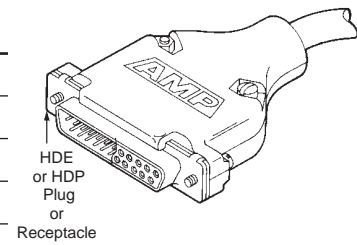
4-40 Mounting Screws — Steel,
zinc plated

Jackscrews — Steel, zinc plated clear
chromate

Input/Output Connectors (Continued)

Shell Size	Cable O.D. (Max.)	Die Cast Shield Kit Numbers	Metal-Plated Plastic Shield Kit Numbers	Grommet Set Part Number
1	.200 5.08	745171-2	—	—
	.250 6.35	745171-1	—	—
	.370 9.40	745171-5	—	747746-1
2	.225 5.72	745172-3	745099-7	—
	.300 7.62	745172-2	747099-5	—
	.375 9.53	745172-1	747099-3	747746-1
	.430 10.92	1-745172-3	747099-1	—
	.280 7.11	745173-5	745833-9	—
3	.350 8.89	745173-4	745833-7	—
	.430 10.92	745173-3	—	—
	.480 12.19	745173-2	745833-3	—
	.530 13.46	745173-1	745833-1	747973-1
	.350 8.89	745174-5	747100-9	—
4	.425 10.80	745174-4	747100-7	—
	.500 12.70	745174-3	747100-5	—
	.530 13.46	2-745174-7	1-747100-1	747973-1
	.575 14.61	745174-2	747100-3	—
	.650 16.51	745174-1	747100-1	—
5	.375 9.53	745175-6	—	—
	.450 11.43	745175-5	747098-9	—
	.525 13.34	745175-4	—	747973-1
	.600 15.24	745175-3	747098-5	—
	.675 17.15	745175-2	—	—
	.750 19.05	745175-1	747098-1	—

*See page 39 for ferrules.



4-40 Male Jackscrew Kit Nos.:
747784-8 (bulk packed)

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

Notes:

1. All parts are packaged unassembled.
2. Jackscrews must be purchased separately.
3. Shielded cable clamps will not accept connector housings with clinch nuts.

For Complete Product Information, Order Catalog 82068

Shell Size	Cable O.D. Range	Kit Numbers	
		Die Cast Shield With Grommets	Metal-Plated Plastic Shield With Grommets
1	.185-.320 4.70-8.13	748676-1	748677-1
2	.185-.320 4.70-8.13	748676-2	748677-2
3	.255-.470 6.48-11.94	748676-3	748677-3
4	.255-.470 6.48-11.94	748676-4	748677-4
5	.255-.470 6.48-11.94	748676-5	748677-5

AMPLIMITE PCB Connectors

Shielded Cable Clamps

Straight Exit RFI/EMI Die Cast Shield for Jacketed Cable (Two-Piece)

Material and Finish

Shield — Zinc alloy, plated nickel over copper

4-40 Pan Head Screws and Latch Screws (90° Exit Only) — Steel, zinc plated

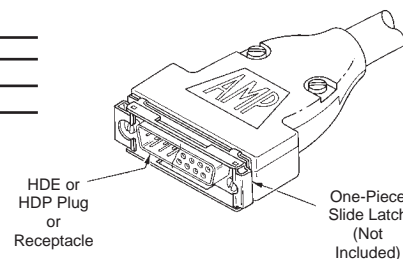
One-Piece Slide Latch (90° Exit Only) — Stainless steel

Input/Output Connectors (Continued)

Shell Size	Cable Dia. (Max.)	No. of Positions	Part Number
2	.300 [7.62]	15	747919-3
2	.375 [9.53]	15	745919-2
2	.430 [10.92]	15	745919-1

Notes:

1. All parts are packaged unassembled.
2. Each kit comprised of a two-piece shield with 2 pan head screws.



90° RFI/EMI Die Cast Shields for Jacketed Cable (Two-Piece)

Material and Finish

Shield — Zinc alloy, plated nickel over copper

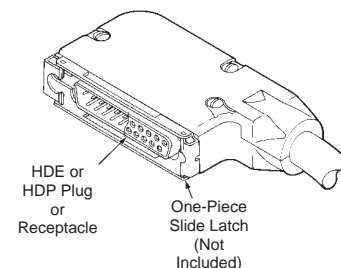
4-40 Pan Head Screws and Latch Screws (90° Exit Only) — Steel, zinc plated

One-Piece Slide Latch (90° Exit Only) — Stainless steel

Shell Size	Cable Dia. (max.)	Shield with Slide Latch Kit Part Nos.	Shield without Slide Latch Kit Part Nos.
2	.225	745652-4	—
	6.48		
	.300	745652-3	—
	7.62		
	.375	745652-2	745918-2
	9.53		
3	.430	745652-1	—
	10.92		
	.280	745653-5	—
	7.11		
	.355	745653-4	—
	9.02		
	.430	745653-3	747194-3
	10.92		
	.480	745653-2	—
	12.19		
	.530	745653-1	—
	13.46		

Notes:

1. All parts are packaged unassembled.
2. Each kit comprised of a two-piece shield with 3 pan head screws and a slide latch with 2 4-40 slide latch screws.
3. Split-ring and crimp ferrules shown below.



For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
Connectors

Input/Output Connectors (Continued)

Crimp and Split-Ring Ferrules

Material and Finish

Outer Ferrule — Copper, plated
.000100 [0.00254] min. tin

Inner Ferrule — .023 [0.58] thick
brass, plated .000050 [0.00127] tin
over copper

Shell Size	Cable Dia. (Max.)	When Using This Shield Kit	Use these Ferrules		
		Die Cast Straight Exit Shield Kit Number	Split-Ring ¹ Ferrule Part Number	Crimp Ferrule No. ² Inner	Outer
1	.200 5.08	745171-2	745508-2	—	—
	.240 6.10	745171-5	—	—	745508-8
	.240 6.10	745171-1	745508-3	—	745130-8
	.280 7.11	745171-5	—	3-745129-4	—
	.370 9.40	745171-5	745508-6	1-745129-7	—
	.225 5.72	745172-3	745508-3	—	—
2	.240 6.10	745172-1	—	1-745129-8	745130-8
	.240 6.10	1-745172-3	—	2-745129-1	745130-8
	.280 7.11	1-745172-3	—	3-745129-2	—
	.300 7.62	745172-2	745508-4	—	—
	.350 8.90	1-745172-3	—	2-745129-0	745130-9
	.365 9.27	745172-1	—	—	1-745130-0
	.375 9.53	745172-1	745508-6	—	—
	.430 10.92	1-745172-3	745508-1	1-745129-9	1-745130-1
	.240 6.10	745173-3	—	2-745129-1	745130-8
	.280 7.11	745173-5	745508-4	—	—
3	.280 7.11	745173-3	—	—	1-745130-6
	.350 8.89	745173-4	745508-5	—	—
	.350 8.89	745173-3	—	2-745129-0	—
	.430 10.92	745173-3	745508-1	—	1-745130-1
	.430 10.92	745173-1	—	—	1-745130-1
	.480 12.19	745173-2	745508-8	—	—
	.530 13.46	745173-1	745508-9	2-745129-2	1-745130-2

Notes:

¹ For split-ring ferrules, min. o.d. is .040 [1.02] smaller than max. o.d.

² For inner and outer ferrules, min. o.d. is .050 [1.27] smaller than max. o.d. At the max cable o.d., the min. insulation is .050 [1.52]

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE PCB
ConnectorsCrimp and Split-Ring Ferrules
(Continued)

Material and Finish

Outer Ferrule — Copper, plated
.000100 [0.00254] min. tin

Inner Ferrule — .023 [0.58] thick
brass, plated .000050 [0.00127] tin
over copper

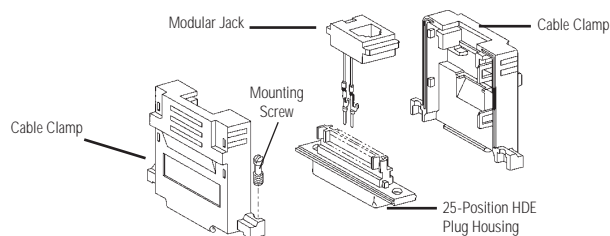
Input/Output Connectors (Continued)

Shell Size	Cable Dia. (Max.)	When Using This Shield Kit	Use these Ferrules		
		Die Cast Straight Exit Shield Kit Number	Split-Ring ¹ Ferrule Part Number	Crimp Ferrule No. ² Inner	Outer
4	.240 6.10	745174-4	—	2-745129-1	745130-8
	.280 7.11	745174-4	—	3-745129-2	1-745130-6
	.350 8.90	745174-5	745508-5	—	—
	.350 8.90	745174-4	—	2-745129-0	745130-9
	.430 10.92	745174-4	745508-1	1-745129-9	1-745130-1
	.500 12.70	745174-3	745508-8	—	—
	.525 13.34	745174-1	—	2-745129-6	1-745130-2
	.575 14.61	745175-2	1-745508-0	—	—
	.650 16.51	745174-1	—	2-745129-5	1-745130-3
	.240 6.10	745175-6	—	—	745130-8
	.350 8.90	745175-4	—	—	745130-9
	.365 9.27	745175-6	—	—	1-745130-0
	.375 9.53	745175-6	745508-6	—	—
	.430 10.92	745175-4	—	—	1-745130-1
5	.450 11.43	745175-5	745508-7	—	—
	.525 13.46	745175-4	745508-9	—	—
	.530 9.53	745175-4	—	2-745129-2	1-745130-2
	.600 15.24	745175-3	1-745508-0	—	—
	.650 16.51	745175-1	—	—	1-745130-3
	.675 17.15	745175-2	1-745508-1	—	—
	.750 19.05	745175-1	1-745508-2	—	—

Notes:

¹ For split-ring ferrules, min. o.d. is .040 [1.02] smaller than max. o.d.

² For inner and outer ferrules, min. o.d. is .050 [1.27] smaller than max. o.d. At the max cable o.d., the min. insulation is .050 [1.52]

AMPLIMITE Transition
Connector
(RS-232 to Modular Jack)

Connector Type	Interface Type	Kit Part Number
Size 3-25 Position Plug	6 Position Modular Jack	748100-1
Size 3-25 Position Receptacle	6 Position Modular Jack	748152-1
Size 3-25 Position Plug	8 Position Modular Jack	747772-1
Size 3-25 Position Receptacle	8 Position Modular Jack	747868-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

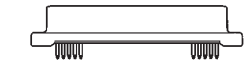
**AMPLIMITE .050 Series
PCB Connectors****AMPLIMITE .050 Series I,
All-Plastic Headers,
Receptacles and Plugs****Material and Finish**

Housing — Thermoplastic, 94V-0, black

Contacts — Phosphor Bronze, plated gold on contact area, tin-lead on solder area, all over nickel underplate

Input/Output Connectors (Continued)**Receptacles**

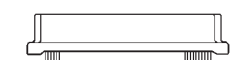
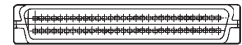
No. of Pos.	Right Angle		Vertical			
	With Self Retaining Posts		With Self Retaining Posts		With Thru Holes	
	.000008 [0.0002]	.000030 [0.00076]	.000008 [0.0002]	.000030 [0.00076]	.000008 [0.0002]	.000030 [0.00076]
50	—	—	—	6-175710-3	173279-3	6-173279-3
68	3-174682-7	8-174682-7	174681-7	6-174681-7	—	—



68-Position Receptacle with Self Retaining Posts (Shown)

Plugs

No. of Pos.	Right Angle		Vertical			
	With Self Retaining Posts		With Thru Holes	With Self Retaining Posts		Without Self Retaining Posts
	.000008 [0.0002]	.000030 [0.00076]	.000008 [0.0002]	.000008 [0.0002]	.000030 [0.00076]	.000008 [0.0002]
40	—	—	—	—	—	174216-2
50	—	—	173280-3	—	—	174216-3
60	—	—	173280-4	—	—	—
68	174684-7	6-174684-7	—	174683-7	6-174683-7	—
96	—	—	—	174683-8	—	—



68-Position Plug with Self Retaining Posts (Shown)

**AMPLIMITE .050 Series II,
Shielded Connectors****Material and Finish**

Shell — Zinc diecast, nickel plating over copper underplating

Housing — Thermoplastic, 94V-0, black

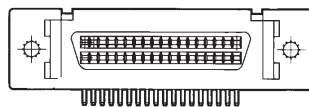
Contacts — Phosphor Bronze, plated gold on contact area, tin-lead on solder area, all over nickel underplate

Post Plate — Thermoplastic, 94V-0 rated, black

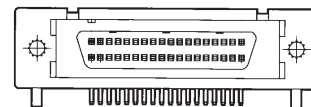
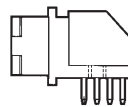
No. of Pos.	Right Angle Connectors		
	Receptacles	Plugs	
	.000008 [0.0002]	.000008 [0.0002]	.000030 [0.00076]
20	—	174341-1 ¹	—
50	174726-4	—	—
68	—	—	2-174225-5 ²

¹With threaded mounting holes.

²With retention legs.



Receptacle Header with Mounting Holes



Plug Header with Latches (Shown with Retention Legs)

**AMPLIMITE .050 Series III
Receptacle Headers,
Material Specifications...****Material and Finish for all Series III Receptacle Headers:**

Housing — Thermoplastic, 94V-0, black, SMT compatible

Shell — Steel, plated bright tin over copper

Contacts — Phosphor bronze, plated .000030 [0.00076] min. gold on mating end; 000120 [0.00305] min. tin-lead on solder end, all .000050 [0.00127] min. nickel underplate

All Hardware – Material and Finish:

Brackets — Zinc, plated nickel over copper

Boardlocks — Copper alloy, plated tin-lead

**AMPLIMITE .050 Series III,
Right-Angle Receptacle
Headers with Rails and Latch
Blocks**

No. of Pos.	Part Numbers	
	Without Boardlocks	With Boardlocks
26	787190-2	787171-2
40	—	187171-4
50	787190-5	787171-5
50	—	787266-5 ¹
68	787190-7	787171-7

¹Part No. 787266-5 has 4-40 threaded mating holes for use with female screwlock Part No. 750644-1.



Shown with Boardlocks

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

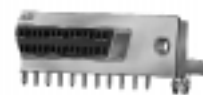
For Complete Product Information, Order Catalog 82068

AMPLIMITE .050 Series
PCB Connectors

Input/Output Connectors (Continued)

AMPLIMITE .050 Series III,
Right-Angle Receptacle
Headers without Rails and
Latch Blocks
(.100 [2.54] and .120 [3.05] Solder
Tails)

No. of Pos.	Part Numbers		
	Without Boardlocks .100 [2.54] Tails	With Boardlocks .100 [2.54] Tails	With Boardlocks .120 [3.05] Tails
40	—	787170-4	—
50	787169-5	787170-5	787362-5
68	787169-7	787170-7	787362-7
100	787169-9	—	787362-9



Shown with Boardlocks

AMPLIMITE .050 Series III,
Right-Angle Receptacle
Headers without Rails, with
Latch Blocks
(.100 [2.54] Solder Tails)

No. of Pos.	Part Numbers	
	Without Boardlocks	With Boardlocks
26	787394-2	787082-2
28	—	787082-3
50	787394-5	787082-5
50	—	787395-5 ¹
68	787394-7	787082-7
100	—	787082-9

¹Has 4-40 threaded mating holes for use with Female
Screwlock Part No. 750644-1



Shown with Boardlocks

AMPLIMITE .050 Series III,
Vertical Receptacle Headers
with Rails and Latch Blocks
(.125 [3.18] Solder Tails)

No. of Pos.	Part Numbers
26	749069-2
50	749069-5
68	749069-7
100	749069-9

Shown with Rails and
Latch Blocks

AMPLIMITE .050 Series III,
Vertical Receptacle Headers
without Rails and Latch Blocks
(.125 [3.18] Solder Tails)

No. of Pos.	Part Numbers
50	749070-5
68	749070-7
100	749070-9

Shown without Rails and
Latch Blocks

AMPLIMITE .050 Series III,
Vertical Receptacle Headers
without Rails, with Latch
Blocks
(.125 [3.18] Solder Tails)

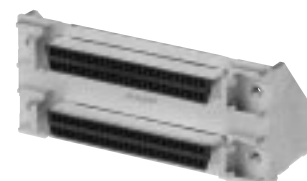
No. of Pos.	Part Numbers
28	749721-3
50	749721-5
68	749721-7

Shown with Latch Blocks,
without Rails

AMPLIMITE .050 Series III,
Stacked Right-Angle
Receptacle Headers
(.120 [3.05] Solder Tails)

No. of Pos.	Part Numbers
50/50	787656-1
68/68	787678-1
68/68	787679-1 ¹

¹Flat top configuration

Shown with Latch Blocks,
with Rails

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

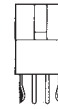
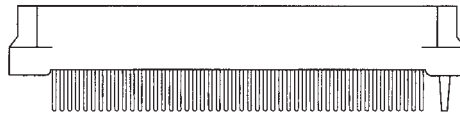
**AMPLIMITE .050 Series
PCB Connectors**

**AMPLIMITE .050 Series III,
SBus Vertical Plug Header
with Polarization**
(.134 [3.40] Solder Tails)
Part No. 6-178857-8

Material and Finish

Housing — Thermoplastic, 94V-0, black

Contacts — Phosphor Bronze, plated .000030 [0.00076] gold on mating end, tin-lead on solder area, all over nickel underplate

Input/Output Connectors (Continued)**AMPLIMITE .050 Series
Cable Connectors**

**AMPLIMITE .050 Series III,
Cable Plug Connectors –
Shielded, with Wire Lacing
Covers**

Material and Finish

Housing and Covers — Thermoplastic, 94V-0, black

Shell — Steel, plated tin-nickel alloy over nickel over copper (Shielded only)

Contacts — Phosphor Bronze, plated gold on mating end, tin-lead on termination end, all nickel underplated

No. of Pos.	Part Numbers
	.029-.031 [0.74-0.79] Outer Wire Dia. Gray
26	1-750913-2
50	1-750913-5
68	1-750913-7



**AMPLIMITE .050 Series III,
Cable Plug Connectors,
Shielded – Wire Lacing
Covers Only**

No. of Pos.	Part Numbers
	.029-.031 [0.74-0.79] Outer Wire Dia. Gray
50	1-750877-5
68	1-750877-7



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE .050 Series Cable Connectors**AMPLIMITE .050 Series III, Cable Plug Connectors—Shielded and Unshielded, with Standard Termination Covers****Material and Finish****Housing and Covers** —

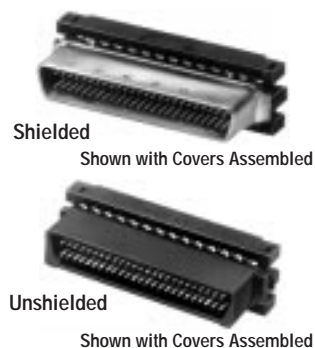
Thermoplastic, 94V-0, black

Shell — Steel, plated tin-nickel alloy over nickel over copper (Shielded only)**Contacts** — Phosphor Bronze, plated gold on mating end, tin-lead on termination end, all nickel underplated**Input/Output Connectors (Continued)**

No. of Pos.	Shielded Part Nos.		Unshielded Part Nos.
	Assembled Covers	Unassembled Covers	Assembled Covers
20	749111-1	—	—
26	1-749111-0	749621-2	—
40	—	749621-4	—
50	749111-4	749621-5	749925-3
68	749111-6	749621-7	749925-5
80	749111-7	749621-8	—
100	749111-8	749621-9	—

Note:

Shielded connectors require backshell kits (shown below) for complete assembly.

**AMPLIMITE .050 Series III, Cable Receptacle Connectors—Shielded with Termination Covers****Material and Finish****Housing and Covers** —

Thermoplastic, 94V-0, black

Shell — Steel, plated tin-nickel alloy over nickel over copper (Shielded only)**Contacts** — Phosphor Bronze, plated gold on mating end, tin-lead on termination end, all nickel underplated

No. of Pos.	Shielded Part Numbers		
	Assembled Std. Covers	Unassembled Std. Covers	Unassembled Wire Lacing Covers ¹
50	749210-5	749699-5	—
68	749210-7	749699-7	786860-7
100	—	749699-8	—

¹Connectors with Unassembled Wire Lacing Termination Covers for .032-.036 [0.81-0.91] outer wire dia.**Note:**

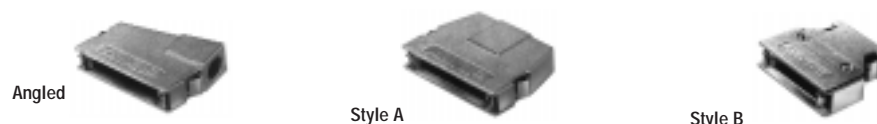
Shielded connectors require backshell kits (shown below) for complete assembly.

**AMPLIMITE .050 Series III, Backshell Kits, with Jackscrews****Material and Finish****Jackscrews** — Steel, plated black zinc**Jackscrew Caps** — Polyolefin or PVC, black**2-56 Screws** — Stainless Steel**Backshell** — Zinc, plated nickel over copper**Strain Relief Staple** — Steel, plated tin-over nickel

No. of Pos.	Part Numbers With Male 2-56 Threads	
	749080-1	749081-1
50	749080-1	749081-1
100	749081-1	749081-1
100	749854-1 ¹	749854-1 ¹

¹Part No. 749854-1 slightly larger than Part No. 749081-1.**AMPLIMITE .050 Series III, Backshell Kits, with Spring Latches****Material and Finish****Spring Latches** — Stainless Steel**2-56 Screws** — Stainless Steel**Backshell** — Zinc, plated nickel over copper**Strain Relief Staple** — Steel, plated tin-over nickel

No. of Pos.	Part Numbers		
	Straight Style A	Straight Style B	Angled Latches
20	749190-1	—	749199-1
26	—	749608-1	749609-1
40	749192-1	—	749201-1
50	749193-1	—	—
50	749193-2 ¹	749889-3	749202-2 ¹
68	—	—	749204-1
68	749195-2 ¹	—	749204-2 ¹
80	749196-2	—	749205-1
100	749197-1	—	749206-1

¹Part Nos. have larger cable O. D.**BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.**For Complete Product Information, Order Catalog 82068**

**AMPLIMITE .050 Series
Panel Connectors****AMPLIMITE .050 Series Panel
Mount Receptacle Assemblies
Kit—
Material Specifications...****Input/Output Connectors (Continued)****Material and Finish****Housing and Termination Covers** — Thermoplastic, 94V-0, black**Shell** — Steel, plated bright tin over copper**Bracket** — Zinc, plated nickel over copper**Contacts** — Phosphor bronze, plated .000030 [0.00076] min. gold on mating end, .000050 [0.00127] min. bright tin-lead on termination end, all .000050 [0.00127] min. nickel underplated**AMPLIMITE .050 Series III,
Panel Mount Receptacle
Assemblies, with Rails and
Latch Blocks**

No. of Pos.	Part Number With Assembled Covers
26	749611-1

Receptacle with Rails
and Latch Blocks**AMPLIMITE .050 Series III,
Panel Mount Receptacle
Assemblies, without Rails,
with Latch Blocks**

No. of Pos.	Part Numbers	
	With Std. Assembled Covers	With Wire Lacing Unassembled Covers
50	749656-5	786862-5
68	759656-7	—
120	1-749656-0	—

Receptacle without
Rails
with Latch Blocks**AMPLIMITE .050 Series III,
Panel Mount Flat Top
Receptacle Assemblies,
without Rails and Latch Blocks**

No. of Pos.	Part Number With Assembled Covers
50	749877-5
68	749877-7
100	749877-9

Receptacle without
Rails
and Latch Blocks**AMPLIMITE .050 Series III,
Panel Mount Receptacle
Assembly, with Rails and
Latch Blocks for .025 [0.64]
Centerline Ribbon Cable**50-Position Receptacle —
Part No. [786103-5](#)Receptacle with Rails
and Latch Blocks**AMPLIMITE .050 Series III,
Panel Mount Receptacle
Assemblies, without Rails and
with Latch Blocks for .025
[0.64] Centerline Ribbon Cable**

No. of Pos.	Part Number
50	786161-5
68	786161-7

Receptacle without
Rails
with Latch Blocks**AMPLIMITE .050 Series III,
Panel Mount Receptacle
Assemblies, without Rails and
Latch Blocks for .025 [0.64]
Centerline Ribbon Cable**

No. of Pos.	Part Number
50	786096-5
68	786096-7

Receptacle without
Rails
and Latch Blocks**AMPLIMITE .050 Series III,
Panel Mount Plug Assemblies,
Unshielded for .025 [0.64]
Centerline Ribbon Cable**

No. of Pos.	Part Number
50	786090-5
68	786090-7

Plug, Unshielded

Note: See Section 3 for other ribbon cable
products.**BLUE** part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

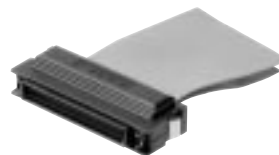
For Complete Product Information, Order Catalog 82068

AMPLIMITE .050 Series Panel Connectors

AMPLIMITE .050 Series III, Backshell Kit for .025 [0.64] Centerline Unshielded Plug

50-Position —
Part No. 787032-5

Backshell Kit
for Unshielded Plug



AMPLIMITE .050 Series III, Strain Relief for .025 [0.64] Centerline Unshielded Plug

68-Position —
Part No. 787043-7



AMPLIMITE .050 Series III, Hardware and Dust Covers

Material and Finish

Stainless steel, zinc plated

Female Screwlock Kits:

Part No. [749087-1](#)
Part No. [749087-2](#) (For right angle board mount connectors)

Female Screwlock Kit (2-56 Thread):

Part No. [786585-2](#) (For pc board mount or panel mount connectors with latches or latches and rails. Can be springlatch type or jackscrew type)

Latch Blocks for Cable-to-Cable Applications:

Part No. [749900-2](#)



AMPLIMITE .050 Series III, Vertical Receptacle Headers with Rails and Latch Blocks, with ACTION PIN Tails

No. of Pos.	Part Numbers	
	With .173 [4.39] ACTION PIN Contacts	With .280 [7.11] ACTION PIN Contacts
20	786554-1	—
26	786554-2	—
50	786554-5	786556-5
68	786554-7	786556-7
100	786554-9	—



Receptacle
with Rails and Latch Blocks

AMPLIMITE .050 Series III, Vertical Receptacle Headers without Rails and Latch Blocks, with ACTION PIN Tails

No. of Pos.	Part Numbers	
	With .173 [4.39] ACTION PIN Contacts	With .280 [7.11] ACTION PIN Contacts
50	786555-5	—
68	786555-7	786557-7
100	786555-9	—



Receptacle
without Rails and Latch Blocks

AMPLIMITE .050 Series III, Vertical Receptacle Headers without Rails, with Latch Blocks, with ACTION PIN Tails

No. of Pos.	Part Numbers	
	With .173 [4.39] ACTION PIN Contacts	With .280 [7.11] ACTION PIN Contacts
68	786155-7	—
100	—	786162-9



Receptacle
without Rails, with Latch Blocks

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82068

AMPLIMITE Shielded .050 Series Slimline Connectors

Shielded Right-Angle Stacked Header, Receptacle

Material and Finish

Housing — Thermoplastic, UL 94V-0 rated, black

Bracket — Zinc, pallated tin-lead over copper

Metal Shell — Carbon steel, tin over copper plated

Boardlocks — Copper alloy, tin-lead plated

Jackscrews — Copper alloy

Contact Shield — Phosphor bronze, tin plated

Contacts — Phosphor bronze

Contact Finish — Duplex plated .000030 [0.00076] gold on mating end, tin-lead on solder end, with entire contact nickel underplated



Standard Receptacle without Rear Contact Shield, Unkeyed
Part No. [786200-1](#)

AMPLIMITE .050 Series Slimline Connector, Shielded – Backshell Kit

Material and Finish

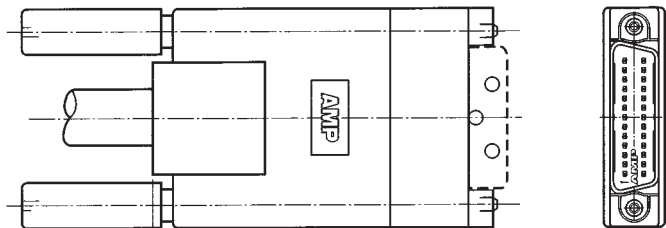
Backshell — Steel, plated tin over copper

Jackscrews — Steel, plated tin over copper, handles covered with ABS, black

Keyed Inserts — Zinc, plated tin over copper

Outside Covers — ABS, black

Keyed Backshell Kit
(Individually Packed)
Part No. [750852-7](#)



AMPLIMITE AT Adapter

Shielded DB9F/DB25M Part No. [621782-1](#)



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalogs 82068 and 296395

AMPLIMITE Filtered Subminiature D Connectors

Connectors with Distributed Element Filters

Material and Finish

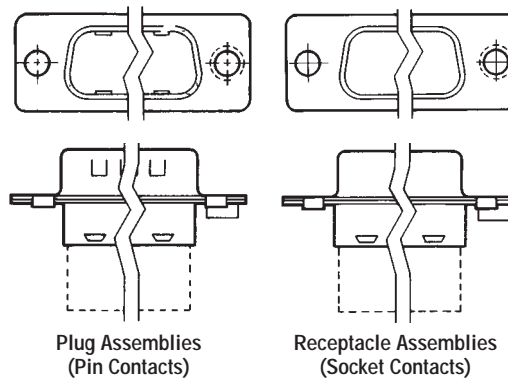
Shell — Steel, tin plated

Insert — UL rated 94V-0 thermoplastic

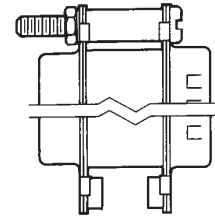
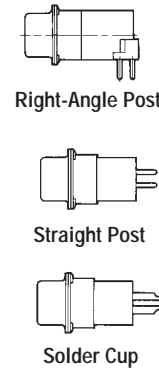
Contacts — Pin - brass, Socket - phosphor bronze plated .000015 [0.00038] min. gold in contact area, tin-lead on termination end

Filter Sleeve — Ferrite and ceramic

Input/Output Connectors (Continued)



Termination Type



Plug-Receptacle Adapter

No. of Pos	Filter Type	Mounting Style	Plug Assemblies		Receptacle Assemblies		Plug Receptacle Adapters
			Right Angle Posted	Solder Cup	Right Angle Posted	Solder Cup	
9	DC	Mtg. Hole	—	842920-1	—	—	842930-1
		Clinch Nut	—	—	—	842925-8	—
	DB	Clinch Nut	—	—	842905-9	—	—
	DA	Mtg. Hole	—	—	—	842925-3	842930-3
		Clinch Nut	—	—	—	—	1-842930-0
	DG	Mtg. Hole	—	—	842905-4	—	—
15	DF	Clinch Nut	1-842900-2	—	—	—	—
	DE	Mtg. Hole	—	842920-6	—	—	—
	DA	Mtg. Hole	—	—	—	842926-3	—
25		Clinch Nut	—	—	—	1-842926-0	—
	DC	Mtg. Hole	—	842922-1	—	—	842932-1
	DB	Clinch Nut	842902-9	—	—	—	—
37	DA	Clinch Nut	1-842902-0	—	—	1-842927-0	1-842932-0
	DF	Mtg. Hole	—	842923-5	—	—	—
50	DE	Clinch Nut	—	—	—	—	1-842934-3

Connectors with Captive Filters

Material and Finish

Shell — Steel, tin plated

Insert — UL rated 94V-0 thermoplastic

Contacts — Pin - brass, Socket - phosphor bronze plated .000015 [0.00038] min. gold in contact area, tin-lead on termination end

Filter Sleeve — Ceramic

No. of Pos	Filter Type	Mounting Style	Plug Assemblies	Receptacle Assemblies	Plug Receptacle Adapters
			Right Angle Posted	Solder Cup	
9	DC	Clinch Nut	—	—	842954-2
15	CA	Clinch Nut	842947-2	—	—
	CC	Clinch Nut	—	93773-7	—
25	CE	Mtg. Hole	—	—	842745-3
37	CC	Clinch Nut	—	93775-7	—

AMPLIMITE Ferrite Block Filtered Connectors

Material and Finish

Housings — Thermoplastic, 94V-0 rated, black, SMT compatible

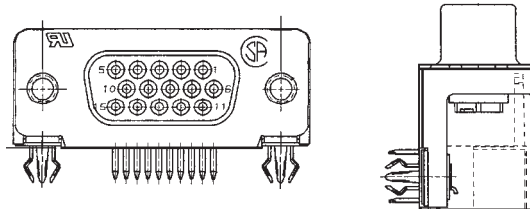
Metal Shell — Steel, plated tin over copper

Eyelets — Brass, plated .000200 [0.00508] min. tin over copper flash

Boardlocks — Copper alloy, plated tin-lead over nickel

Inserts — Zinc, plated clear chromate

Contacts — Pin: Brass, Socket: Phosphor Bronze, Both plated: 000030 [0.00076] min. gold on mating end, tin-lead on solder end, all over nickel underplate



Shell Size	No. of Pos.	HD-22 Receptacle	HD-20	
			Plug	Receptacle
1	9	—	869436-2	869520-2
2	15	869427-2	—	869521-2

For Complete Product Information, Order Catalog 82068

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

AMPLIMITE Filtered Subminiature D Connectors

**AMPLIMITE HD-20 Filtered
Connector — .318
Footprint, Shell Size 3,
25 Positions
Part No. 969476-5**

Material and Finish

Housings — Thermoplastic,
94V-0 rated, black, SMT compatible

Metal Shell — Steel, plated .000200
[0.00508] min. tin over .000100
[00.00254] min. copper

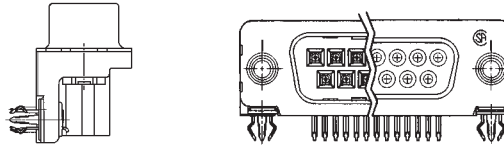
Eyelets — Brass, plated .000200
[0.00508] min. tin over copper flash

Boardlocks — Copper alloy, plated
.000200 [0.00508] min. tin-lead over
.000050 [0.00127] min. nickel

Inserts — Zinc, plated clear chromate

Contacts — Brass, duplex plated:
000030 [0.00076] min. gold on mating
end, tin-lead on solder end, all over
nickel underplate

Input/Output Connectors (Continued)



AMPLIMITE Coax Mix 13 Subminiature D Connectors

AMPLIMITE Cable Plug Housing

Material and Finish

Housings — Glass filled nylon
94V-0 rated, black

Shell — Steel, tin plated

Contacts:

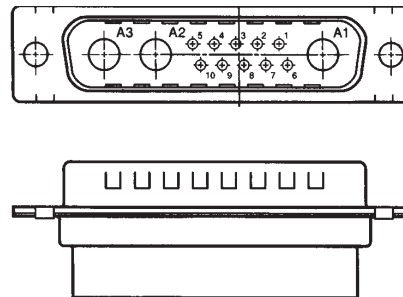
HD-20 Pin Contacts — Standard
crimp snap-in type contacts (see page
17)

Coax Contacts — Plug shell, brass
screw machined; Center plug contact,
beryllium copper (Accepts coax contacts
787578-1 and 787578-2)

Ferrule — Brass tin plated

Dielectric — Teflon, white

Cable Plug Housing
Part No. 750021-1



AMPLIMITE Plug Shielding Hardware Kit

Material and Finish

Housings — Glass filled nylon
94V-0 rated, black

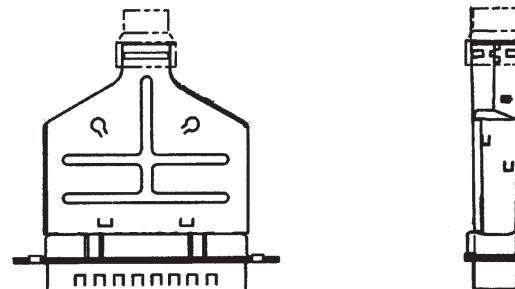
Shell — Steel, tin plated

Shields — Steel, tin plated

Plug Shielding Hardware Kit
Part No. 750403-1

Kit Includes:

- 1- Thermoplastic housing
- 1- Metal shell
- 2- Metal shields
- HD-20 pin contacts and special size
- 8 coaxial contacts must be ordered
- separately.



For Complete Product Information, Order Catalogs 82068 and 82261

AMPLIMITE Subminiature D
Connectors per MIL-C-24308

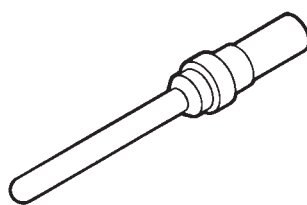
Input/Output Connectors (Continued)

Size 20 Crimp Snap-in
Contacts for Series 109
Connectors, .040 [1.02] Pin
Diameter

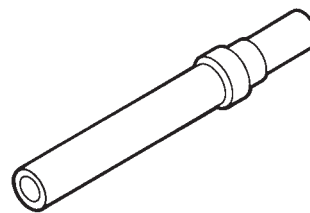
Material and Finish

Pin and Socket Body — Copper alloy
plated gold over nickel underplate

Socket Hood — Passivated stainless
steel



Pin
M39029/64-369
(Supersedes M24308/11-1)



Socket
M39029/63-368
(Supersedes M24308/10-1)

Wire Size Range	Ins. Dia. (Max.)	Contact Configuration	Tape Mounted Contacts	Loose Piece Contacts		Hand Tool		Contact Color Band
			AMP Part No.	Military Part No. (M39029/)	AMP Part No.	Tool No. (M22520/)	Positioner No. (M22520/)	
20-24	0.6-0.2	Pin	205089-2	64-369	205089-1	02-01	02-08	orange, blue, white
		Socket	205090-2	63-368	205090-1	02-01	02-08	orange, blue, gray

*Tape mounted contacts are used in the AMP-TAPEMATIC Stripper/Crimper Machine No. 599406-7.

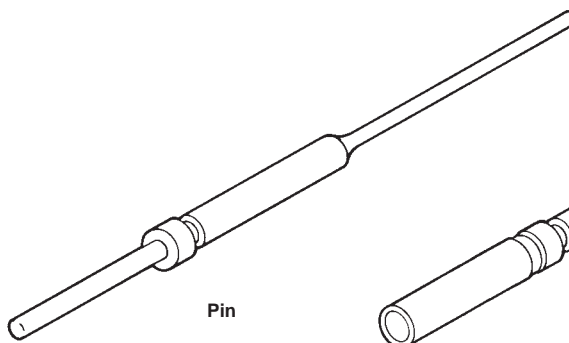
- Notes:**
1. These contacts are used in Series 109 military connectors.
 2. Insertion/Extraction Tool No. 91067-2 (Military No. M81969/1-02) is used to install and remove pin and socket contacts.
 3. See AMP Instruction Sheet 408-7516 for wire length, tool and selector settings.
 4. Color bands are read in the direction of terminal (wire barrel) end to mating end.

Size 20 Posted Contacts for
Series 109 Connectors

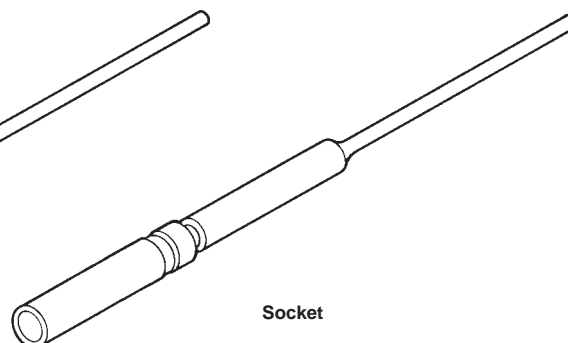
Material and Finish

Pin and Socket Body — Copper alloy
plated gold over copper

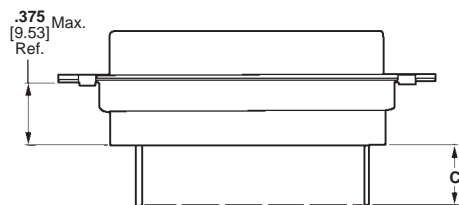
Socket Hood — Passivated stainless
steel



Pin



Socket

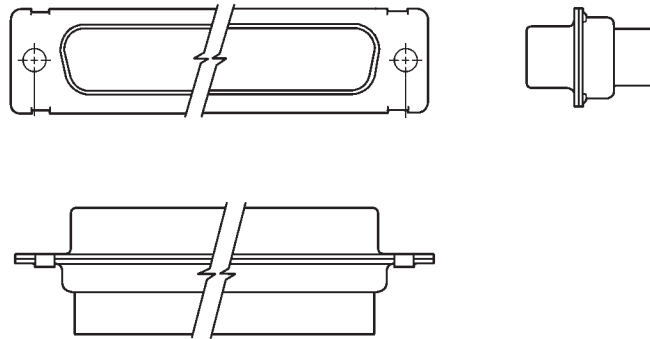


Post extension when used in a
standard connector

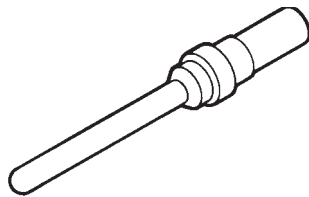
Post Diameter ±.002 [0.05]	Post Extension C±.025 [0.64]	Part Nos.		Contact Plating
		Pin	Socket	
.018 0.46	.325 8.25	1-212565-0	1-208778-0	Gold over copper

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82069

AMPLIMITE Subminiature D Connectors per MIL-C-24308**Crimp, Series 109, Standard Density Connectors****Material and Finish****Shell** — Steel, cadmium plated**Insert** — Approved material per MIL-C-24308**Retention Clips** — Stainless steel**Input/Output Connectors (Continued)**

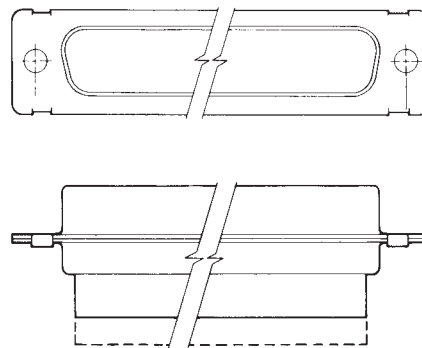
No. of Contact Pos. (Shell Size)	Plugs			Receptacles		
	Military Part No. M24308/	AMP Part No.	Description	Military Part No. M24308/	AMP Part No.	Description
9 (1)	4-259F	205162-1	Plug only	2-281F	205161-1	Recept. only
	4-1F	205556-2	Plug with pins	2-1F	205555-2	Recept. with sockets
15 (2)	4-260F	205164-1	Plug only	2-282F	205163-1	Recept. only
	4-2F	205558-2	Plug with pins	2-2F	205557-2	Recept. with sockets
25 (3)	4-261F	205166-1	Plug only	2-283F	205165-1	Recept. only
	4-3F	205560-2	Plug with pins	2-3F	205559-2	Recept. with sockets
37 (4)	4-262F	205168-1	Plug only	2-284F	205167-1	Recept. only
	4-4F	205562-2	Plug with Pins	2-4F	205561-2	Recept. with sockets
50 (5)	4-263F	205170-1	Plug only	2-285F	205169-1	Recept. only
	4-5F	205564-2	Plug with pins	2-5F	—	Recept. with sockets

Notes: 1. Size 20 contacts shown on page 50 are supplied with connectors as loose piece.2. "F" is stamped on connectors following **M24308** Part No. as required. "F" designates cadmium shell plating.**Non-Magnetic Crimp Plugs, Series 109, Standard Density Connectors****Material and Finish****Shell** — Brass, gold plated**Insert** — Approved material per MIL-C-24308**Retention Clips** — Copper alloy

Pin Contact

Wire Size Range	NASA No.	AMP Part No.
20-24 0.6-0.2	G-10-P1	205089-4

Max. Insulation diameter: .072 [1.83]



No. of Contact Pos. (Shell Size)	NASA No.	AMP Part No.
9 (1)	311P409-1P-B-12	207252-2
15 (2)	311P409-2P-B-12	206798-2
25 (3)	311P409-3P-B-12	206800-2
37 (4)	311P409-4P-B-12	206802-2
50 (5)	311P409-5P-B-12	206804-2

For Complete Product Information, Order Catalog 82069

AMPLIMITE Subminiature D
Connectors per MIL-C-24308

Input/Output Connectors (Continued)

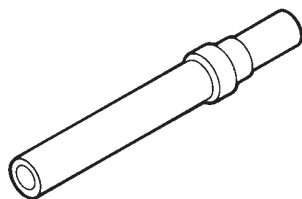
Non-Magnetic Crimp
Receptacles, Series 109,
Standard Density
Connectors

Material and Finish

Shell — Brass, gold plated

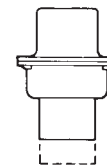
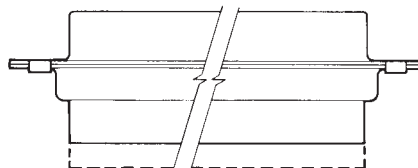
Insert — Approved material per
MIL-C-24308

Retention Clips — Copper alloy



Socket Contact

Wire Size Range	NASA No.	AMP Part No.
20-24 0.6-0.2	G-10-S1	206793-1



No. of Contact Pos. (Shell Size)	NASA No.	AMP Part No.
9 (1)	311P409-1S-B-12	207253-2
25 (3)	311P409-3S-B-15 311P409-3S-B-12	206801-1 206801-2
37 (4)	311P409-4S-B-12	206803-2
50 (5)	311P409-5S-B-12	206805-2

Size 8 Crimp Contacts
(Power) for Standard
Density, Series 109
Power/Coax/Signal
Connectors

Material and Finish

Copper alloy, plated gold over nickel
underplateRetention Clips — Stainless steel or
phosphor bronze

Pin Contact

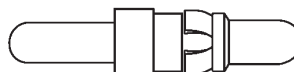


Socket Contact

Wire Size Range		Part Numbers ¹	
AWG	mm ²	Pin	Socket
8	8	211159-1	211161-1
12-14	2-3	212007-1	212008-1
16-18	0.8-1.4	212013-1	212014-1

¹Use these contacts with connectors above.Size 8 Printed Circuit Board
Pin Contact (Power) for
Standard Density, Series
109 Power/Coax/Signal
Connectors

Part No. 449379-2



Pin

Material and Finish

Copper alloy, plated gold over nickel
underplateRetention Clips — Stainless steel or
phosphor bronze**BLUE** part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82069

AMPLIMITE Subminiature D Connectors per MIL-C-24308

Power/Coax/Signal/Combination, Series 109, Standard Density Connectors

Material and Finish

Shell — Steel or copper alloy

Plating — Cadmium, tin

Insert — Approved material per MIL-C-24308

Retention Clips — Stainless steel or copper alloy

Contact Selection

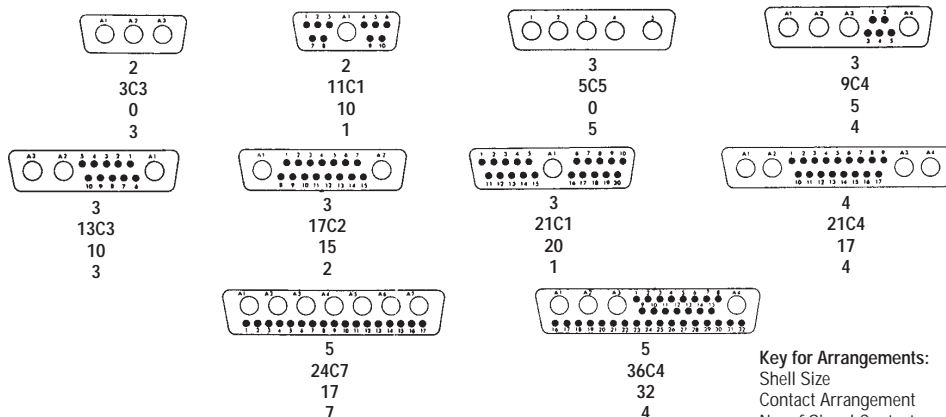
Standard:

Size 8 coax: Contact AMP Incorporated

Size 8 power: Page 52

Size 20 signal: Pages 50, 51 and 52

Input/Output Connectors (Continued)



Insert Arrangement	Cad Plated Steel Shell		Tin Plated Steel Shell	
	Plug (Pin)	Receptacle (Socket)	Plug (Pin)	Receptacle (Socket)
3C3	—	—	—	445705-1
11C1	211111-1	211112-1	—	—
5C5	212491-1	212059-1	212491-3	212059-3
9C4	212498-1	212502-1	—	—
13C3	208810-1	208811-1	—	—
17C2	212506-1	212510-1	—	—
21C1	212522-1	—	—	—
21C4	212530-1	212534-1	—	—
24C7	208743-1	208552-1	—	—
36C4	208744-1	208550-1	—	—

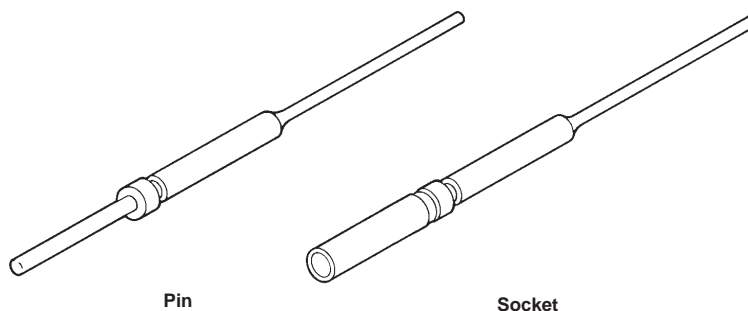
Notes:

1. Plug insert arrangements shown. Receptacle arrangements are mirror images.
2. Cable clamp/strain relief hardware cannot be used with these arrangements.
3. .120 [3.05] mounting holes.

Size 22 Posted Contacts

Material and Finish

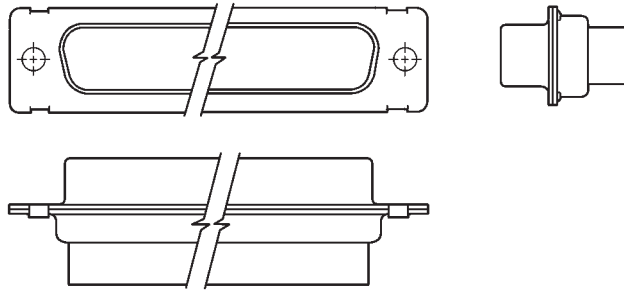
Pin and Socket Body — Copper alloy plated per chart below



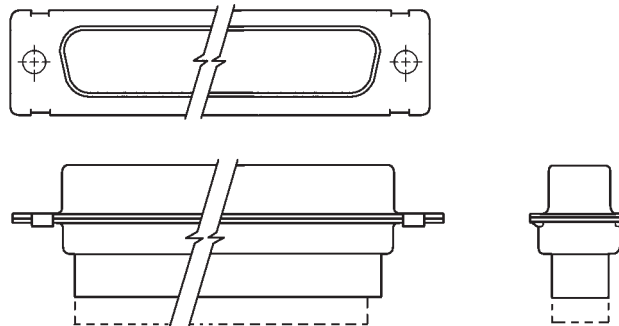
Post Diameter ±.002 [.050]	Post Extension C ±.025 [.64]	Part Numbers		Contact Plating	Socket Hood Material & Finish
		Pin	Socket		
.018 0.46	.175 4.45	—	207684-3	Gold over copper	Copper alloy plated gold over copper
	.275 6.99	207683-2	207684-1		
.025 0.64	.275 6.99	207683-8	207684-4	Gold over nickel	Passivated Stainless steel

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82069

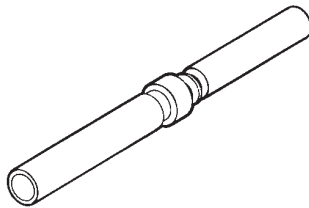
AMPLIMITE Subminiature D Connectors per MIL-C-24308**Crimp, Series 90, Standard Density Connectors****Material and Finish****Shell** — Steel, cadmium plated**Insert** — Approved material per MIL-C-24308**Retention Clips** — Stainless steel or copper alloy**Input/Output Connectors (Continued)**

No. of Contact Pos. (Shell Size)	Plugs			Receptacles		
	Military Part No. M24308/	AMP Part No.	Description	Military Part No. M24308/	AMP Part No.	Description
44 (3)	—	—	—	2-13F	204516-2	Recept. w/sockets
62 (4)	2-14F	205519-2	Plug w/pins	2-14F	204518-2	Recept. w/sockets
78 (5)	2-15F	204521-2	Plug w/pins	—	—	—

Notes: 1. Size 22 contacts shown on page 53 are supplied with connectors as loose piece.2. "F" is stamped on connectors following **M24308** Part No. as required. "F" designates cadmium shell plating.**Non-Magnetic Crimp Plugs, Series 90, Standard Density Connectors****Material and Finish****Shell** — Brass, gold plated**Insert** — Approved material per MIL-C-24308**Retention Clips** — Copper alloy

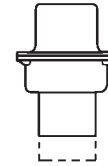
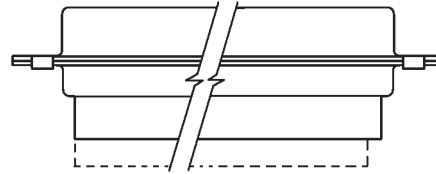
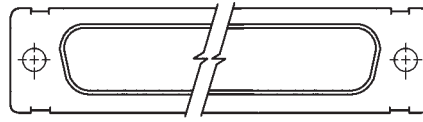
No. of Contact Pos. (Shell Size)	NASA No.	AMP Part No.
15 (1)	311P407-1P-B-12	206498-4
26 (2)	311P407-2P-B-12	206500-4
44 (3)	311P407-3P-B-12	206063-4
62 (4)	311P407-4P-B-12	206502-4
78 (5)	311P407-5P-B-12	206504-4
104 (6)	311P407-6P-B12	206066-4

For Complete Product Information, Order Catalog 82069

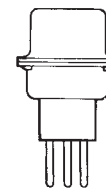
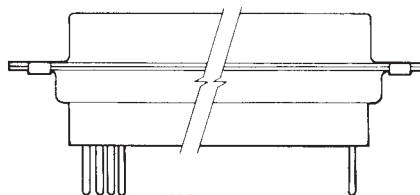
**AMPLIMITE Subminiature D
Connectors per MIL-C-24308****Non-Magnetic Crimp
Receptacles, Series 90,
Standard Density
Connectors****Material and Finish****Shell** — Brass, gold plated**Insert** — Approved material per
MIL-C-24308**Retention Clips** — Copper alloy

Socket Contact

Wire Size Range	NASA No.	AMP Part No.
22-28 0.4-0.08	G-08-S1	206071-1
Max. Insulation diameter: .054 [1.38]		

Input/Output Connectors (Continued)

No. of Contact Pos. (Shell Size)	NASA No.	AMP Part No.
15 (1)	311P407-1S-B-12	206499-4
26 (2)	311P407-2S-B-12	206501-4
44 (3)	311P407-3S-B-12	206064-4
62 (4)	311P407-4S-B-12	206503-4
78 (5)	311P407-5S-B-12	206505-4
104 (6)	311P407-6S-B12	206065-4

**Straight PCB Receptacles,
Series 90, High Density
Connectors****Material and Finish****Shell** — Steel, cadmium plated**Insert** — Approved material per
MIL-C-24308**Retention Clips** — Stainless steel15 Position Receptacle
(Shell Size 1)
Part No. 208872-1**For Complete Product Information, Order Catalog 82069**

AMPLIMITE Subminiature D Connectors per MIL-C-24308

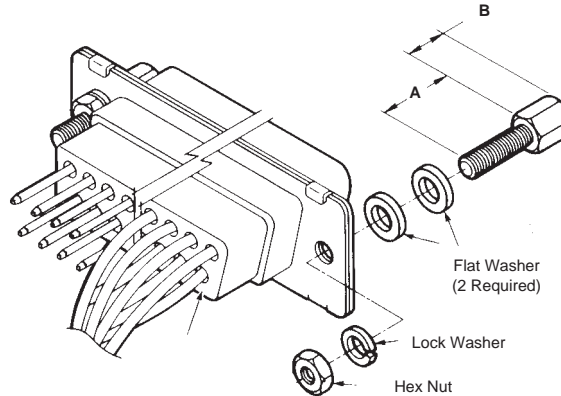
Input/Output Connectors (Continued)

Accessories — Female Screwlocks and Kits

Material and Finish

Standard Steel Parts — Cold rolled steel per ASTM A108, zinc plated per ASTM B633, Type II, Class SCI (yellow chromate)

Stainless Steel Parts — Passivated stainless steel



Dimensions		Kits	
A	B	Steel	Stainless Steel
.312 7.92	.188 4.87	205817-8 M24308/26-1	212447-1
.500 12.7	.223 5.66	—	212452-1 ¹

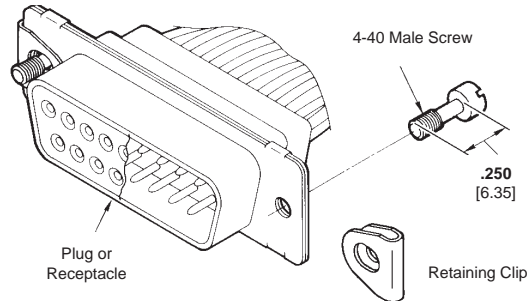
¹Long special

Note: Kits include two complete assemblies, illustrated above.

Accessories — Male Screw Retainer Kits

Material and Finish

Stainless Steel Parts — Stainless steel, passivated per QQ-P-35B



Part No. 211883-5

Notes:

1. Each kit includes two screws and two retainers.
2. Retainer is assembled onto connector flange with threaded hole toward the wire side of the connector.
3. MIL No. M24308/25-6P

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82069

Shielded Miniature Circular DIN Receptacles**Shielded Miniature Circular DIN, Right-Angle, Stacked Right-Angle and Vertical Mount PCB Receptacles, Thru-Hole****Material and Finish**

Housing — Thermoplastic, 94V-0 rated, black

Shield — Copper alloy, plated .000100 [0.00254] min. tin-lead over .000030 [0.00076] min. nickel

Contacts — Phosphor bronze, plated as follows:

A. Gold flash on mating area, .000120 [0.00305] min. tin-lead on solder tails, all over .000050 [0.00127] min. nickel underplate

B. .000030 [0.00076] min. gold in mating area, .000120 [0.00305] min. tin-lead on solder tails, all over .000050 [0.00127] min. nickel underplate

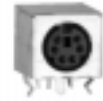
C. .000015 [0.00038] min. gold in mating area, .000120 [0.00305] min. tin-lead on solder tails, all over .000050 [0.00127] min. nickel underplate

Input/Output Connectors (Continued)

No. of Pos.	Pltg. Code	Right-Angle Part Numbers		
		With Hold-Down	Without Hold-Down	With Front Panel Grnd. Fingers
4	A	749230-1	749263-1	—
	B	749181-1	749264-1	750069-1
5	B	749274-1	—	—
	A	749231-1	749265-1	—
6	B	749180-1	749266-1	750071-1
	B	—	749270-1	—
7	A	749232-1	749268-1	—
	B	749179-1	749267-1	750073-1
9	B	286767-2 ¹	—	—

¹ Housing is gray.

With Hold-Downs



Without Hold-Downs



With Grounding Fingers



Stacked With Hold-Downs



No. of Pos.	Pltg. Code	Stacked Right-Angle Part Numbers	
		With Hold-Down	
6/6	A	84401-1	
6/6	A	84376-1	
9/9	A	84230-2 ¹	

¹ Housing is gray.

No. of Pos.	Pltg. Code	Vertical Part Numbers		
		Unshielded	Shielded Hold-Down	Shielded with Front Panel Screwdown
4	C	750315-1	750317-1	—
	B	—	—	750319-2
6	C	750327-1	—	—
	B	750327-2	750329-2	750131-2
8	C	—	750338-1	750340-1
	B	750337-2	—	750340-2

Vertical Mount Receptacle without Screw-Down



Vertical Mount Receptacle with Screw-Down



For Complete Product Information, Order Catalog 82212

Shielded Data Link (SDL) Connectors

Plug 50 Series Assemblies for Flat Cable and 50 and 36 Series Round Shielded Cable

Material and Finish

Housings — Polycarbonate, 94V-2 rated

Shield — for flat cable: Copper alloy, plated bright tin-lead; for round shielded cable: Steel, plated bright tin

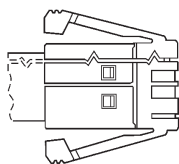
Contacts — Copper alloy, plated .000050 [0.00127] min. gold on mating area over nickel underplate

Notes:

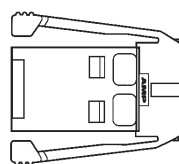
1. Flat cable plug assemblies accept cable size range—24 AWG or 26 AWG [0.2mm² or 0.12-0.15mm²]

2. 50 Series Round shield cable plug assemblies accept cable size range—24 AWG or 26 AWG [0.2mm² or 0.12-0.15mm²]; 36 Series Round shield cable plug assemblies accept cable size range—26 AWG or 28 AWG [0.12-0.15mm² or 0.08-0.09mm²]

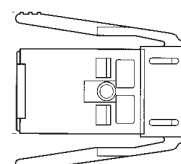
Input/Output Connectors (Continued)



Flat Cable Plug



Round Cable Plug



M.B.I. Plug

No. of Pos.	Key	Part Numbers						
		50 Series Flat Cable	50 Series Round Cable	36 Series Round Cable	Top Shield	Bottom Shield	Ferrule	Boot
4	D	—	4-520424-1	—	520460-1	520461-1	520433-1	520851-1
	E	5-520423-1	5-520424-1	5-520532-1	—	—	—	520852-1
6	A	—	1-520424-2	—	—	—	—	520852-1
6 ¹	—	—	943010-2	—	520462-1	520463-1	520435-1	943014-2
	A	1-520423-3	1-520424-3	—	—	—	—	—
8	C	—	3-520424-3	1-520532-3	520464-1	520465-1	520436-1	520853-1
	E	5-520423-3	5-520424-3	—	—	—	520437-1 ¹	—
	A	—	1-520424-6	1-520532-6	—	—	520440-1	—
16	E	5-520423-6	—	—	520466-1	520467-1	520441-1 ²	520454-1

¹Connector for Medical Information Bus (M.B.I.)

²Larger ferrule O.D.

Note:

Prefix/Suffix numbers of the plug assemblies must match prefix and suffix numbers of mating receptacles.

Shielded Data Link (SDL) Side Entry Receptacles with Panel and PCB Ground

Material and Finish

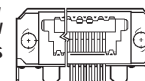
Housing — Polyester or Polysulfone, 94V-0 rated, black

Shield — Copper alloy, plated bright tin-lead

Contacts — Copper alloy, plated .000050 [0.00127] min. gold on mating area, tin-lead plated solder tails, all over nickel underplate

No. of Conductors	Key	Part Numbers		
		Panel Ground w/o Boardlocks	PCB Ground w/o Boardlocks	Boardlock Panel & PCB Ground
4	D	—	—	4-943036-1
	E	—	5-520459-1	5-943036-1
6	A	—	1-520459-2	1-943036-2
	A	—	1-520459-3	1-493036-3
8	C	—	3-520459-3	—
	E	—	5-520459-3	—
16	A	—	1-520459-6	1-493036-6
	E	5-520421-6	—	—

SDL Receptacle, front and side view Without Boardlocks



SDL Receptacle, front and side view With Boardlocks



Shielded Data Link (SDL) Side Entry Receptacles with Offset Flange and Panel Ground

Material and Finish

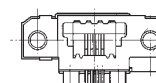
Housing — Polyester or Polysulfone, 94V-0 rated, black

Shield — Copper alloy, plated bright tin-lead

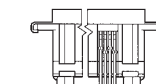
Contacts — Copper alloy, plated .000050 [0.00127] min. gold on mating area, tin-lead plated solder tails, all over nickel underplate

No. of Conductors	Key	Part Numbers	
		With Offset Flange	With Panel Ground
4	D	—	4-520422-1
	E	5-520501-1	5-520422-1
6	E	—	5-520422-2
	A	—	1-520422-3
8	E	5-520501-3	5-520422-3
	A	—	1-520422-6
16	E	5-520421-6	—

SDL Side Entry Receptacle with Offset Flange



SDL Side Entry Receptacle with Panel Ground



For Complete Product Information, Order Catalog 82101

Printed Circuit Board Connectors

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AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Receptacle Assemblies,
Surface Mount, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

Vertical Mount, Closed Top
Entry with Holddowns

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] gold on contact area, .000150 [0.00381] tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

Holddowns—Copper alloy, plated .000150 [0.00381] minimum tin-lead over .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos.
10	535923-2
26	535923-3
40	535923-5

Notes: 1. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.



Vertical Mount, Bottom Entry with Holddowns

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] gold on contact area, .000150 [0.00381] tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

Holddowns—Copper alloy, plated .000150 [0.00381] minimum tin-lead over .000050 [0.00127] nickel

No. of Pos.	Part Nos.
10	535959-1
20	535959-3
26	535959-2
30	535959-4
40	535959-5
50	535959-6
60	535959-7

Notes: 1. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.



Breakaway Headers, Surface-Mount—Unshrouded Single-Row, .100 [2.54] Centers

.025 [0.64] Square
Straight Post

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Posts—Phosphor bronze, plated as follows:

Plating—Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

No. of Pos.	Part Nos.
3	146128-1



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Breakaway Headers, Surface-Mount—Unshrouded Double-Row, .100 x .100 [2.54 x 2.54] Centers

.025 [0.64] Square
Straight Post

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Posts—Phosphor bronze, plated as follows:

Plating—Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos.
10	146130-4
12	146130-5
20	146130-9
26	1-146130-2
30	1-146130-4



Receptacle Assemblies, Board Mount, Double-Row, Closed Entry, .100 [2.54] Centers

Horizontal Mount
(with Guide Pin Slots and Standoffs)



Material and Finish:

Housing—Brown thermoplastic, 94V-0 rated, high temperature compatible

Contacts—Phosphor bronze, plated as follows:

Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

No. of Pos.	Receptacle Assembly Part Nos. with .115 [2.92] Solder Tail Lengths			
	Standard Solder Tails		Board Retention Tails	
	Plating A	Plating B	Plating A	Plating B
12	532956-1	532955-1	534204-2	534975-5
14	—	2-532955-5	—	—
20	532956-3	532955-3	534204-9	—
24	532956-4	532955-4	1-534204-1	534975-7
30	532956-5	532955-5	534204-4	—
36	532956-6	532955-6	534204-3	—
40	532956-7	532955-7	1-534204-2	—
50	532956-8	532955-8	534204-1	1-534975-1
60	532956-9	532955-9	534204-5	—
70	—	1-532955-0	—	—
72	1-532956-1	—	—	—
80	1-532956-2	—	—	—
96	1-532956-5	—	—	—
100	1-532956-6	1-532955-6	—	534975-1
110	—	—	1-534204-6	—
120	1-532956-8	1-532955-8	—	—

- Notes:**
1. .115 [2.92] tail length is for use with .062 [1.57] PC boards; .145 [3.68] tail length is for use with .093 [2.36] PC boards.
 2. Receptacle assemblies with low force contacts are available, consult AMP Incorporated.
 3. .256 [6.50] minimum positive pin stop to prevent shorting between rows.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Receptacle Assemblies, Board
Mount, Double-Row,
Closed Entry, .100 [2.54]
Centers

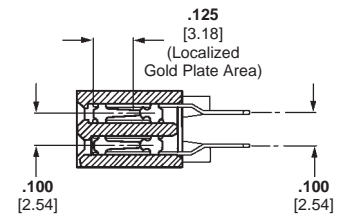
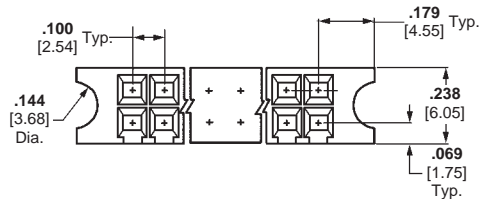
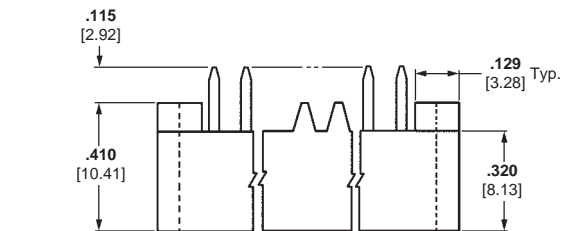
Vertical Mount
(with Guide Pin Slots and
Standoffs)

Material and Finish:

Housing—Brown thermoplastic, 94V-0
rated, high temperature compatible

Contacts—Phosphor bronze, duplex
plated .000030 [0.00076] gold on
contact area, .000050-.000100
[0.00127-0.00254] bright tin-lead on
solder area, with entire contact under-
plated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)



No. of Pos.	Part Nos.
50	534972-3

Receptacle Assemblies, Board
Mount, Triple-Row,
Closed Entry, .100 [2.54]
Centers

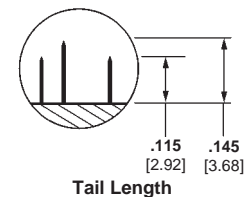
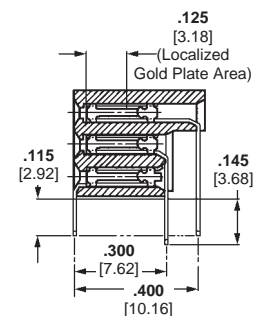
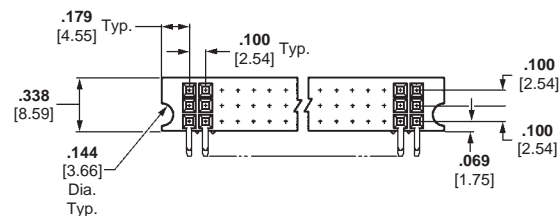
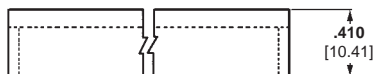
Horizontal Mount
(with Guide Pin Slots and
Standoffs)

Material and Finish:

Housing—Brown thermoplastic, 94V-0
rated, high temperature compatible

Contacts—Phosphor bronze, plated as
follows:

Plating—Duplex plated .000030
[0.00076] gold on contact area,
.000050-.000100 [0.00127-0.00254]
bright tin-lead on solder area, with entire
contact underplated .000050 [0.00127]
nickel



No. of Pos.	Part Nos.
150	534974-8

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Headers, Straight Post, Double-
Row, .100 [2.54] Centers

Solder Posts and ACTION PIN
Posts
(with Pin Protection
and Guide Pins)

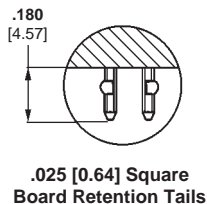
Material and Finish:

Housing—Black thermoplastic, 94V-0
rated

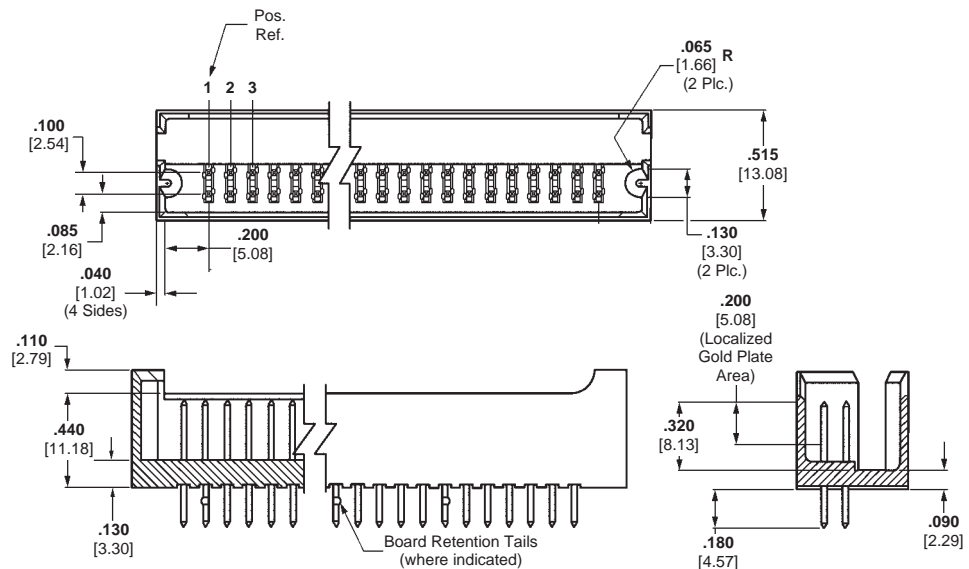
Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end, with
entire post underplated .000050
[0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end, with
entire post underplated .000050
[0.00127] nickel



Printed Circuit Board Connectors (Continued)



No. of Pos.	Header Part Nos. with .180 [4.57] Tail Length			
	Standard Solder Tails		Board Retention Tails	
	Plating A	Plating B	Plating A	Plating B
12	102692-1	102567-1	—	534257-5
14	—	2-102567-3	—	—
20	—	1-102567-1	—	—
24	102692-2	102567-2	—	534257-7
30	1-102692-7	1-102567-3	—	—
36	102692-3	102567-3	534978-6	—
40	1-102692-3	1-102567-2	534978-7	—
50	—	102567-6	534978-8	1-534257-5
60	102692-5	102567-4	534978-9	—
70	—	—	1-534978-5	—
80	—	102567-8	—	—
100	102692-8	—	—	—
110	—	—	1-534978-2	—

Note: Headers with make first/break last posts can be made available, consult AMP Incorporated.

ACTION PIN Post

.250 [6.35] Tail Length



No. of Pos.	Part Nos.
12	102690-1
60	102690-5
80	102690-6
100	102690-8

Note: Headers with make first/break last posts can be
made available, consult AMP Incorporated.

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Headers, Right-Angle Post,
Double-Row, .100 [2.54]
Centers

Card Extender
(with Pin Protection
and Guide Pins)

Material and Finish:

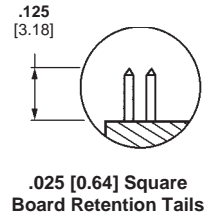
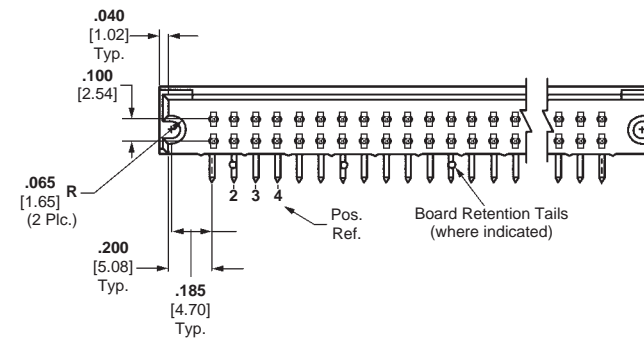
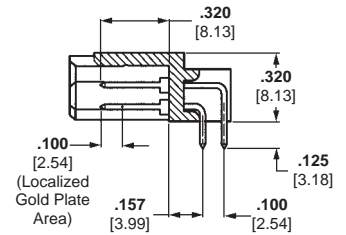
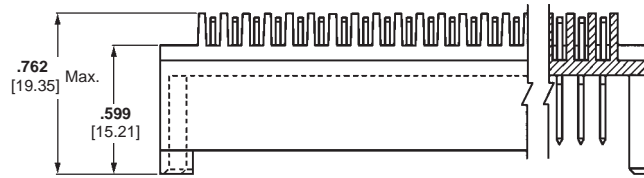
Housing—Black thermoplastic, 94V-0 rated

Posts—Phosphor bronze, plated as follows:

Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] bright tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] bright tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)



No. of Pos.	Header Part Nos. with .125 [3.18] Tail Length		
	Standard Solder Tails	Board Retention Tails	
	Plating A	Plating B	Plating A
20	—	1-102589-2	—
24	—	102589-6	—
30	—	102589-4	534245-2
40	102802-8	—	—
50	—	102589-5	—

Note: Headers with make first/break last posts can be made available, consult AMP Incorporated.

Mod. II Receptacle Assemblies, Single-Row, .100 [2.54] Centers

Closed Entry, End Stackable,
Short Point-of-Contact,
with Standoffs

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Contacts—Phosphor bronze, plated as follows:

Plating—Duplex plated .000030 [0.00076] gold on contact area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

No. of Pos.	Part Nos.
5	535676-4
6	535676-5
8	535676-7

- Notes:**
- AMP, part number, date code and word "front" stamped on housing where size permits.
 - AMP recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Mod. II Receptacle
Assemblies, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

Closed Entry, End Stackable,
Short Point-of-Contact,
with Standoffs

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Contacts—Phosphor bronze, plated as follows:

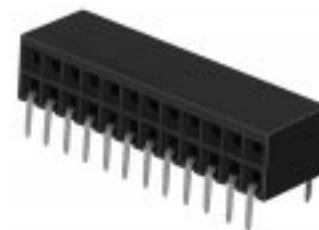
Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Contact Plating/Part Nos.	
	Plating A	Plating B
4	6-535512-1	—
8	6-535512-3	—
10	6-535512-4	146140-4
12	535512-1	—
14	1-535512-7	—
16	1-535512-8	—
20	535512-2	—
24	535512-3	—
26	2-535512-0	—
30	2-535512-2	—
34	535512-4	—
40	2-535512-5	—
50	535512-7	—
60	3-535512-0	—

- Notes:** 1. AMP, part number, date code and word "front" stamped on housing where size permits.
2. AMP recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
3. .256 [6.50] minimum positive pin stop to prevent shorting between row.



Mod. II Receptacle Assemblies, Single-Row, .100 [2.54] Centers

Closed Top Entry,
End Stackable, with
Single Tine Contacts

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] gold on contact area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

No. of Pos.	Part Nos.
3	534237-1
4	534237-2
5	534237-3
6	534237-4
7	534237-5
8	534237-6

No. of Pos.	Part Nos.
10	1-534237-8
12	534237-0
14	1-534237-2
16	1-534237-4
20	1-534237-8

- Notes:** 1. AMP part number and date code stamped on housing where size permits.
2. AMP recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
3. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Mod. II Receptacle Assemblies,
Double-Row, .100 X .100
[2.54 x 2.54] Centers

Closed Top Entry,
End Stackable
.100 x .100 [2.54 x 2.54]
Mounting Pattern

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Phosphor bronze, duplex
plated .000030 [0.00076] gold on
contact area, .000100-.000200
[0.00254-0.00508] bright tin-lead on
solder area, with entire contact under-
plated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos.	No. of Pos.	Part Nos.
2	534206-1	18	1-534206-0
4	534206-2	20	1-534206-2
6	534206-3	24	1-534206-3
8	534206-4	26	1-534206-4
10	534206-5	28	1-534206-6
12	534206-6	34	1-534206-7
14	534206-7	36	1-534206-8
16	534206-8	40	2-534206-0



- Notes:** 1. AMP part number and date code stamped on housing where size permits.
2. AMP recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
3. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.

Mod. IV Receptacle
Assemblies, Single-Row, .100
[2.54] Centers

Closed Top Entry,
End Stackable, Low Profile with
Single Tine Contacts

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Phosphor bronze,
plated as follows:

Plating—Duplex plated .000030
[0.00076] gold on contact area,
.000050-.000100 [0.00127-0.00254]
bright tin-lead on solder area, with entire
contact underplated .000050 [0.00127]
nickel

No. of Pos.	Part Nos.	No. of Pos.	Part Nos.
5	535541-3	13	1-535541-1
8	535541-6	14	1-535541-2
10	535541-8	16	1-535541-4
11	535541-9	18	1-535541-6
12	1-535541-0	20	1-535541-8



- Notes:** 1. AMP part number and date code stamped on housing where size permits.
2. AMP recommends mating gold or duplex plated headers with select gold plated receptacle assemblies.
3. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Mod. IV Receptacle
Assemblies, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

Closed Top Entry,
End Stackable, Low Profile,
.100 x .100 [2.54 x 2.54]
Mounting Pattern

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Phosphor bronze,
plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on solder area, with entire
contact underplated .000050 [0.00127]
nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on solder area, with entire
contact underplated .000050 [0.00127]
nickel

Plating C—.000100-.000200
[0.00254-0.00508] bright tin-lead over
.000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Contact Plating/Part Nos.		
	Plating A	Plating B	Plating C
8	534998-4	—	—
10	534998-5	—	—
12	534998-6	—	—
14	534998-7	—	—
16	534998-8	—	—
20	1-534998-0	—	1-535585-0
24	1-534998-2	—	—
26	1-534998-3	—	—
30	1-534998-5	—	—
32	1-534998-6	—	—
34	1-534998-7	—	—
36	1-534998-8	—	—
40	2-534998-0	2-535598-0	—
50	2-534998-5	—	—
60	3-534998-0	—	—

- Notes:** 1. AMP part number and date code stamped on housing where size permits.
2. AMP recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
3. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.



Closed Top Entry, High
Temperature Compatible,
End and Side Stackable,
Low Profile, .100 x .100
[2.54 x 2.54] Mounting Pattern

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated, high temperature
compatible

Contacts—Phosphor bronze,
duplex plated .000030 [0.00076] gold
on contact area, .000100-.000200
[0.00254-0.00508] bright tin-lead on
solder area, with entire contact under-
plated .000050 [0.00127] nickel

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

No. of Pos.	Part Nos.
10	146219-2

- Notes:** 1. AMP part number and date code stamped on housing where size permits.
2. AMP recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
3. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension.



For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Mod. IV Receptacle
Assemblies, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

Bottom Entry, End Stackable,
Low Profile,
.100 x .300 [2.54 x 7.62]
Mounting Pattern

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Phosphor bronze, duplex
plated .000030 [0.00076] gold on
contact area, .000100-.000200
[0.00254-0.00508] bright tin-lead on
solder area, with entire contact under-
plated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos.
11	534267-7
12	534267-8
14	534267-1
20	534267-2
24	534267-9
30	1-534267-2
36	1-534267-5

- Notes:** 1. AMP part number and date
code stamped on housing
where size permits.
2. AMP recommends mating
gold or duplex plated head-
ers with duplex plated
receptacle assemblies.
3. To obtain the minimum mat-
ing post length, add .020
[0.51] (not including the post
lead in chamfer) to the max-
imum point-of-contact
dimension.



Breakaway Headers— Unshrouded, Single-Row, .100 [2.54] Centers

.025 [0.64] Square
Straight Post

Material and Finish:

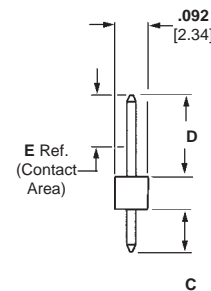
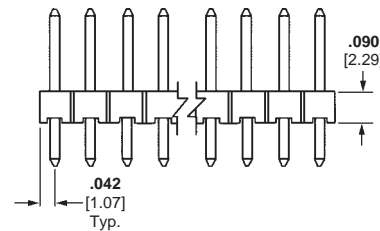
Housing—Black thermoplastic,
94V-0 rated

Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C— .000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post



No. of Pos.	C = .090 [2.29] D = .230 [5.84] E = .185 [4.70]		C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]		C = .125 [3.18] D = .318 [8.08] E = .200 [5.08]		
	Post Plating/Part Nos.		Post Plating/Part Nos.		Post Plating/Part Nos.		
	Plating A	Plating C	Plating B	Plating C	Plating A	Plating B	Plating C
1	—	—	103185-1	—	—	—	—
2	103747-2	103741-2	103185-2	103327-2	102976-2	102972-2	103321-2
3	103747-3	103741-3	103185-3	103327-3	102976-3	102972-3	103321-3
4	103747-4	—	103185-4	103327-4	—	—	103321-4
5	—	—	103185-5	—	—	—	103321-5
6	—	—	—	—	—	—	103321-6
8	103747-8	—	103185-8	103327-8	102976-8	102972-8	103321-8
10	—	—	—	1-103327-0	—	—	—
12	—	—	1-103185-2	—	—	—	—
14	—	—	—	1-103327-4	—	—	—
20	—	—	—	—	—	2-102972-0	—
40	4-103747-0	4-103741-0	4-103185-0	4-103327-0	4-102976-0	4-102972-0	4-103321-0

Notes: 1. Other tail lengths are available, consult AMP Incorporated.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Breakaway Headers—
Unshrouded, Single-Row, .100
[2.54] Centers

.025 [0.64] Square
Right-Angle Post

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated

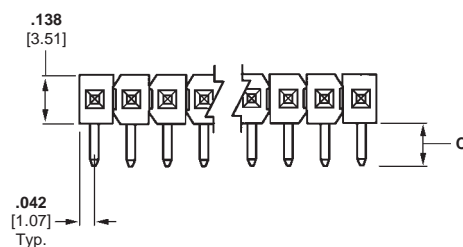
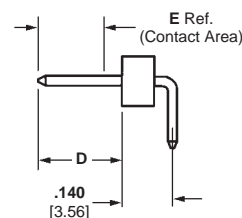
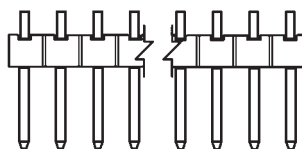
Posts—Phosphor bronze, plated as follows:

Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Plating C— .000100-.000200 [0.00254-0.00508] tin-lead over .000050 [0.00127] nickel on entire post

Printed Circuit Board Connectors (Continued)



No. of Pos.	C = .090 [2.29] D = .230 [5.84] E = .185 [4.70]		C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]			C = .125 [3.18] D = .318 [8.08] E = .200 [5.08]		
	Post Plating/Part Nos.		Post Plating/Part Nos.			Post Plating/Part Nos.		
	Plating A	Plating C	Plating A	Plating B	Plating C	Plating A	Plating B	Plating C
2	—	—	—	—	103329-2	—	—	—
3	—	—	—	—	103329-3	—	—	—
4	—	103759-4	—	103325-4	—	—	—	—
12	—	—	—	—	—	—	—	1-103323-2
36	—	—	—	—	—	—	—	3-103323-6
40	4-103765-0	4-103759-0	4-103148-0	4-103325-0	4-103329-0	4-102978-0	4-102974-0	4-103323-0

Notes: 1. Other tail lengths are available, consult AMP Incorporated.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Breakaway Headers—
Unshrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square
Straight-Angle Post

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

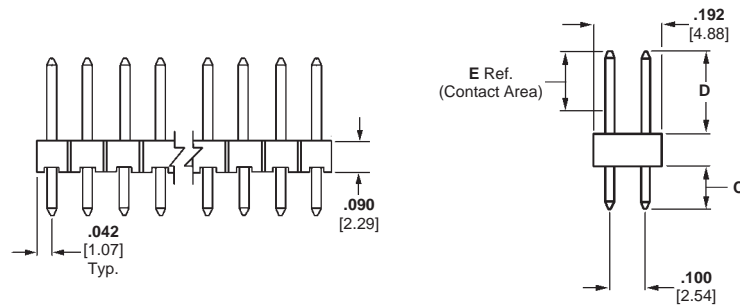
Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

Printed Circuit Board Connectors (Continued)



No. of Pos.	C = .090 [2.29] D = .230 [5.84] E = .185 [4.70]		C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]			C = .125 [3.18] D = .318 [8.08] E = .200 [5.08]		
	Post Plating/Part Nos.		Post Plating/Part Nos.			Post Plating/Part Nos.		
	Plating A	Plating C	Plating A	Plating B	Plating C	Plating A	Plating B	Plating C
2	—	—	—	103186-1	—	—	102973-1	—
4	—	—	103240-2	103186-2	—	102977-2	—	—
6	—	—	103240-3	103186-3	103328-3	102977-3	—	—
8	103783-4	—	103240-4	103186-4	103328-4	102977-4	102973-4	—
10	—	103777-5	103240-5	103186-5	103328-5	102977-5	102973-5	103322-5
12	—	103777-6	103240-6	103186-6	—	102977-6	102973-6	—
14	103783-7	103777-7	103240-7	103186-7	103328-7	102977-7	102973-7	103322-7
16	—	—	103240-8	103186-8	—	102977-8	102973-8	—
18	—	—	—	103186-9	—	—	—	—
20	1-103783-0	—	1-103240-0	1-103186-0	1-103328-0	1-102977-0	1-102973-0	1-103322-0
24	1-103783-2	—	—	—	—	—	—	—
26	—	—	1-103240-3	1-103186-3	1-103328-3	1-102977-3	—	—
32	—	—	—	1-103186-6	—	—	—	—
34	—	—	—	—	1-103328-7	—	1-102973-7	—
40	—	—	2-103240-0	—	—	—	2-102973-0	—
50	—	—	—	2-103186-5	—	—	2-102973-5	—
60	—	—	—	3-103186-0	—	—	—	—
62	—	—	—	3-103186-1	—	—	—	—
72	—	—	—	—	3-103328-6	—	—	—
80	4-103783-0	4-103777-0	4-103240-0	4-103186-0	4-103328-0	4-102977-0	4-102973-0	4-103322-0

Notes: 1. Other tail lengths are available, consult AMP Incorporated.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Breakaway Headers—
Unshrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square
Right-Angle Post

Material and Finish:

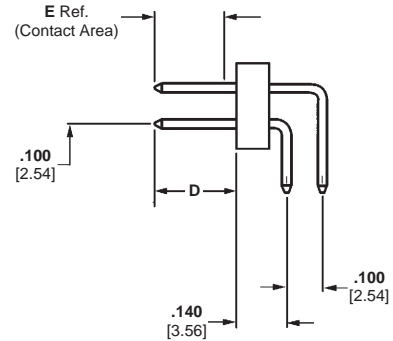
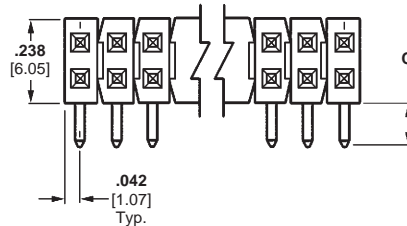
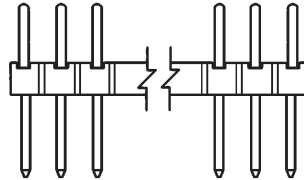
Housing—Black thermoplastic,
94V-0 rated

Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post



No. of Pos.	C = .090 [2.29] D = .230 [5.84] E = .185 [4.70]			C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]			C = .110 [2.74] D = .318 [8.08] E = .200 [5.08]		
	Post Plating/Part Nos.			Post Plating/Part Nos.			Post Plating/Part Nos.		
	Plating A	Plating A	Plating B	Plating C	Plating A	Plating B	Plating C	Plating A	Plating B
8	—	—	—	—	—	102975-4	—	—	—
10	103801-5	—	—	103330-5	—	—	—	—	—
20	—	—	—	—	—	—	1-103324-0	—	—
26	—	—	1-103326-3	—	—	—	—	—	—
80	4-103801-0	4-103149-0	4-103326-0	4-103330-0	4-102979-0	4-102975-0	4-103324-0	—	—

Notes: 1. Other tail lengths are available, consult AMP Incorporated.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Retention Headers—
Unshrouded, Single-Row,
.100 [2.54] Centers

.025 [0.64] Square
Straight Post (with Board
Retention Feature)

Material and Finish:

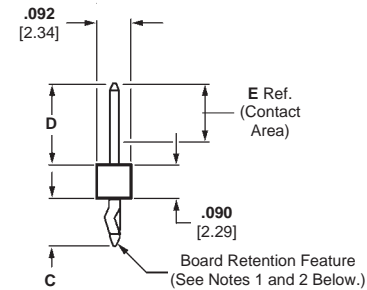
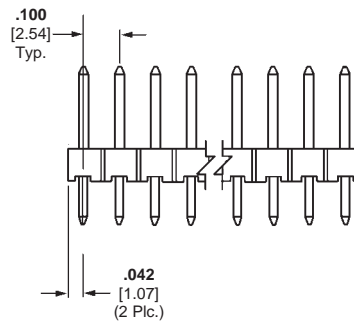
Housing—Black thermoplastic,
94V-0 rated

Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)



No. of Pos.	C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]		C = .125 [3.18] D = .318 [8.08] E = .200 [5.08]	
	Post Plating/Part Nos.		Post Plating/Part Nos.	
	Plating A	Plating B	Plating A	Plating B
3	104344-1	104345-1	104426-1	104427-1

Notes: 1. Board retention using kinked tails are for headers 6 positions and smaller; headers 7 positions and larger use swaged tails.
2. Refer to the product drawing to determine the number and location of the board retention tails.
3. Other tail lengths are available, consult AMP Incorporated.

Retention Headers—
Unshrouded, Single-Row, .100
[2.54] Centers

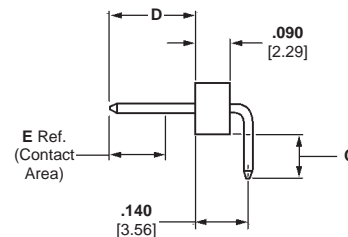
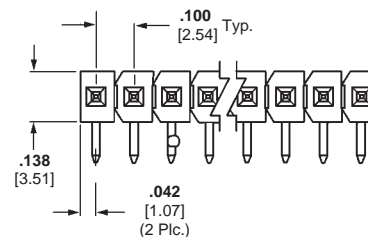
.025 [0.64] Square
Right-Angle Post (with Board
Retention Feature)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Phosphor bronze, plated as
follows:

Plating—.000100-.000200 [0.00254-
0.00508] tin-lead over .000050
[0.00127] nickel on entire post



No. of Pos.	C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]	
	Part Nos.	
6	104349-4	
20	1-104349-8	

Notes: 1. Refer to the product drawing to determine the number and location of the board retention tails.
2. Other tail lengths are available, consult AMP Incorporated.

Performance Characteristics:

Insertion Force—12 lb. [53.4N]
maximum

Retention Force—.25 lb. [1.11N]
minimum

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

**Retention Headers—
Unshrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers**

**.025 [0.64] Square
Straight Post (with Board
Retention Feature)**

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

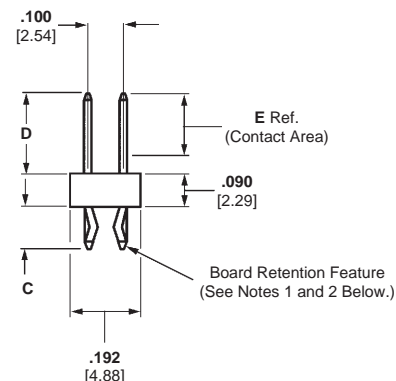
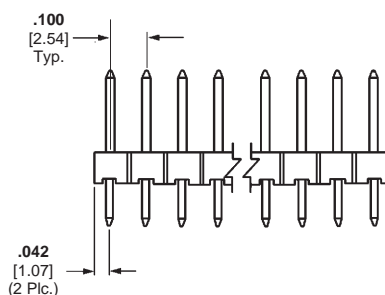
Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

Performance Characteristics:

Insertion Force—12 lb. [53.4N]
maximum

Retention Force—.25 lb. [1.11N]
minimum

Printed Circuit Board Connectors (Continued)



No. of Pos.	C = .120 [3.05] D = .230 [5.84] E = .185 [4.70]			C = .125 [3.18] D = .318 [8.08] E = .200 [5.08]	
	Post Plating/Part Nos.			Post Plating/Part Nos.	
	Plating A	Plating B	Plating C	Plating A	Plating B
2	104350-1	104351-1	104352-1	104432-1	104433-1
4	104350-2	—	—	—	—
6	—	—	—	104432-3	104433-3
8	104350-4	104351-4	—	104432-4	104433-4
10	104350-5	104351-5	—	—	104433-5
12	104350-6	—	—	104432-6	—
16	104350-8	—	—	—	104433-8
20	1-104350-0	—	—	—	1-104433-0
26	—	—	—	—	1-104433-3

Notes: 1. Board retention using kinked tails are for headers 6 positions and smaller; headers 7 positions and larger use swaged tails.
2. Refer to the product drawing to determine the number and location of the board retention tails.
3. Other tail lengths are available, consult AMP Incorporated.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

**Retention Headers—
Unshrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers**

**.025 [0.64] Square
Right-Angle Post (with
Board Retention Feature)**

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

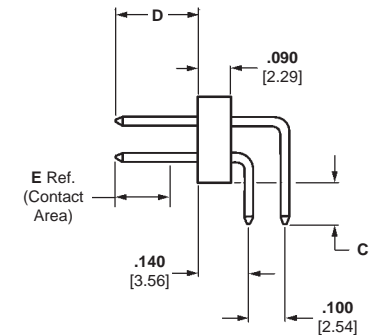
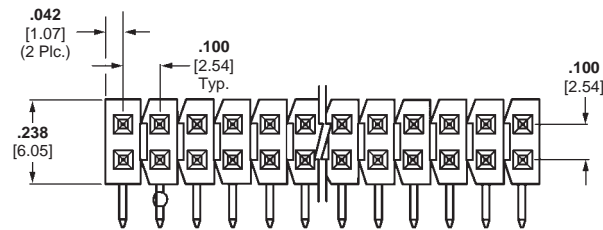
Posts—Phosphor bronze, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

Printed Circuit Board Connectors (Continued)



No. of Pos.	Post Plating/Part Nos.		
	Plating A	Plating B	Plating C
	Plating A	Plating B	Plating C
10	104353-5	104354-5	—
20	—	—	1-104355-0

Notes: 1. Refer to the product drawing to determine the number and location of the board retention tails.
2. Other tail lengths are available, consult AMP Incorporated.

**Standard Headers—
Unshrouded, Single-Row,
.100 [2.54] Centers**

**.025 [0.64] Square
Straight Post**

Material and Finish:

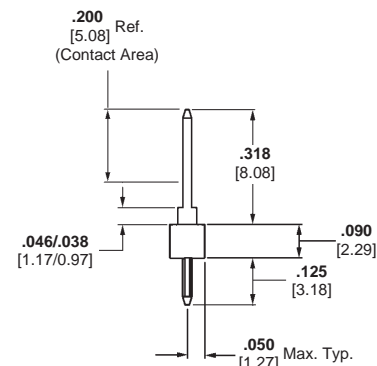
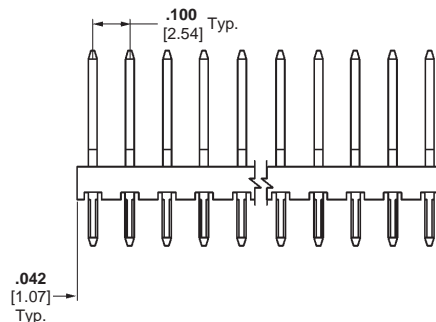
Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Selectively plated .000030
[0.00076] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Plating B—Selectively plated .000015
[0.00038] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Tin-Lead/Nickel—Plating option
available; minimum order quantities may
apply. Consult AMP Incorporated



No. of Pos.	Post Plating/Part Nos.	
	Plating A	Plating B
1	87220-1	87224-1
2	87220-2	87224-2
3	87220-3	87224-3
4	87220-4	87224-4
5	87220-5	87224-5
6	87220-6	87224-6
7	87220-7	—
8	87220-8	87224-8
10	—	1-87224-0

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Standard Headers—
Unshrouded, Single-Row,
.100 [2.54] Centers

.025 [0.64] Square
Right-Angle Post

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

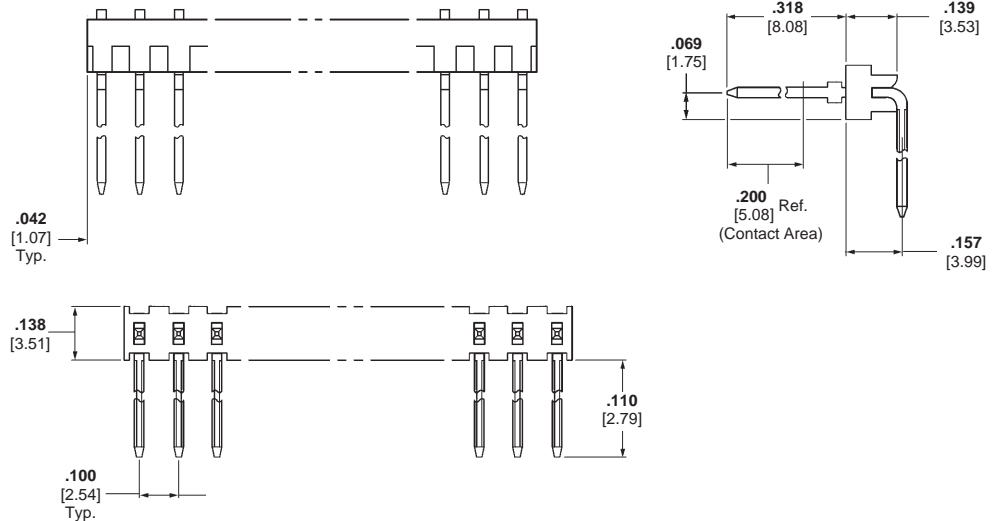
Posts—Copper alloy, plated as follows:

Plating A—Selectively plated .000030
[0.00076] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Plating B—Selectively plated .000015
[0.00038] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Tin-Lead/Nickel—Plating option
available; minimum order quantities may
apply. Consult AMP Incorporated

Printed Circuit Board Connectors (Continued)



No. of Pos.	Post Plating/Part Nos.	
	Plating A	Plating B
3	87232-3	—
4	87232-4	—
5	—	87233-5
6	—	87233-6
10	1-87232-0	—

Standard Headers—
Unshrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square
Straight Post

Material and Finish:

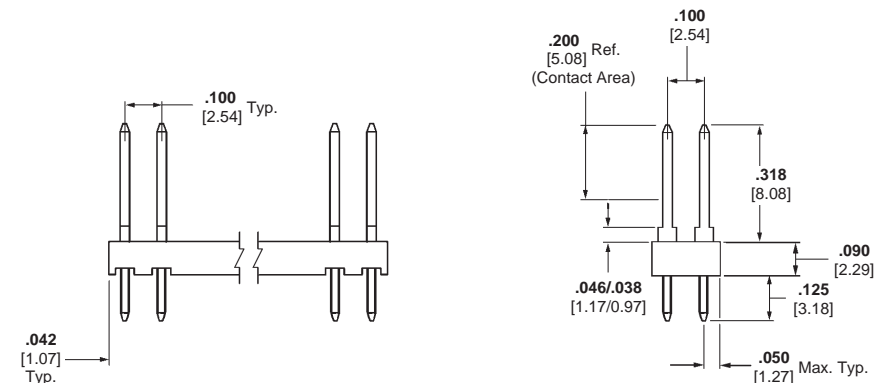
Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Selectively plated .000030
[0.00076] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Plating B—Selectively plated .000015
[0.00038] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Tin-Lead/Nickel—Plating option
available; minimum order quantities may
apply. Consult AMP Incorporated



No. of Pos.	Post Plating/Part Nos.	
	Plating A	Plating B
2	1-87215-0	87227-1
4	1-87215-1	87227-2
6	1-87215-2	87227-3
8	87215-1	87227-4
10	87215-2	87227-5
12	87215-3	87227-6
14	87215-4	87227-7
16	87215-5	87227-8
20	87215-7	1-87227-0
40	2-87215-0	—
50	2-87215-5	2-87227-5

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Standard Headers—
Unshrouded, Single-Row,
.100 [2.54] Centers

.025 [0.64] Square
Right-Angle Post

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

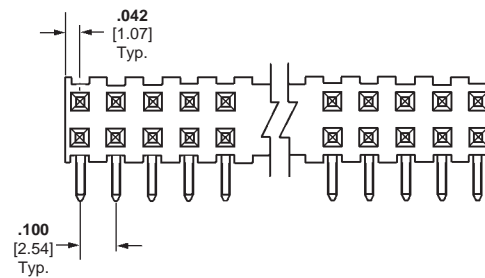
Posts—Copper alloy, plated as follows:

Plating A—Selectively plated .000030
[0.00076] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

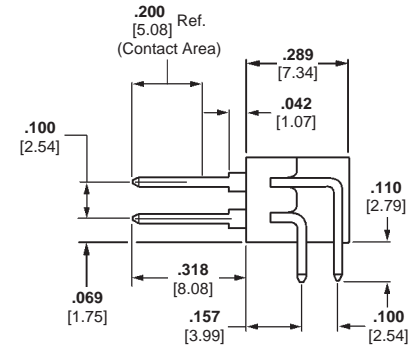
Plating B—Selectively plated .000015
[0.00038] gold on contact area, with
gold flash over .000050 [0.00127] nickel
on entire post

Tin-Lead/Nickel—Plating option
available; minimum order quantities may
apply. Consult AMP Incorporated

Printed Circuit Board Connectors (Continued)



No. of Pos.	Post Plating/Part Nos.	
	Plating A	Plating B
6	1-86479-5	—
8	1-86479-6	87230-4
10	86479-3	87230-5
12	86479-4	—
14	86479-5	87230-7
16	86479-2	—
20	86479-1	1-87230-0
30	1-86479-9	—
50	2-86479-9	—



Standard Headers—
Unshrouded, Triple-Row, .100
[2.54] Centers

.025 [0.64] Square
Straight Post

No. of Pos.	Part Nos.
12	103817-2
24	103817-6
30	103817-8



Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, duplex plated
000030 [0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on solder area, with entire
post underplated .000050 [0.00127] nickel

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

ACTION PIN Headers—
Unshrouded, Single-Row,
.100 [2.54] Centers

.025 [0.64] Square
Straight Post

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Posts—Copper alloy, duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] bright tin-lead on termination end, with entire post underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	For .093-.125 [.236-3.18] Thick PC Boards
2	3-102898-4
3	4-102898-0
5	3-102898-8
8	102898-1



ACTION PIN Headers—
Unshrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square
Straight Post

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated, high temperature compatible

Posts—Copper alloy, duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] bright tin-lead on termination end, with entire post underplated .000050 [0.00127] nickel

No. of Pos.	For .093-.125 [.236-3.18] Thick PC Boards
4	103233-1
6	103233-2
8	103233-3
10	103233-4
12	103233-5
16	103233-7
24	1-103233-1
26	1-103233-2
50	2-103233-4
60	2-103233-9



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Standard Profile Headers—
Shrouded, Single-Row,
.100 [2.54] Centers

.025 [0.64] Square
Straight Post (with Standoffs)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

Printed Circuit Board Connectors (Continued)

No. of Pos.	Post Plating/Part Nos.		
	Plating A	Plating B	Plating C
3	—	—	103080-1
4	103414-2	102202-1	103080-2
5	103414-3	102202-2	103080-3
6	103414-4	102202-3	—
7	—	102202-4	103080-5
8	103414-6	102202-5	103080-6
9	103414-7	102202-6	—
10	103414-8	102202-7	103080-8
11	—	102202-8	—
12	1-103414-0	102202-9	—
13	—	1-102202-0	—
14	—	1-102202-1	—
16	1-103414-4	1-102202-3	—
18	—	1-102202-5	—
20	—	1-102202-7	—



Standard Profile Headers—
Shrouded, Single-Row,
.100 [2.54] Centers

.025 [0.64] Square
Right-Angle Post
(with Standoffs)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

No. of Pos.	Post Plating/Part Nos.		
	Plating A	Plating B	Plating C
3	103361-1	—	—
4	103361-2	102203-1	102523-1
5	103361-3	102203-2	—
6	103361-4	102203-3	—
7	103361-5	102203-4	—
8	103361-6	102203-5	102523-6
9	—	102203-6	—
10	103361-8	102203-7	—
12	1-103361-0	102203-9	—
14	—	1-102203-1	—
16	—	1-102203-3	—
20	—	1-102203-7	—



Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Standard Profile Headers—
Shrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square Straight
Post (with Detent Windows)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

Printed Circuit Board Connectors (Continued)

End Dimension	No. of Pos.	Post Plating/Part Nos.		
		Plating A	Plating B	Plating C
.066 [1.68]	6	103168-1	102618-1	—
	8	103168-2	102618-2	—
	10	103168-3	102618-3	87589-1
	12	103168-4	102618-4	87589-2
	14	103168-5	102618-5	87589-3
	16	103168-6	102618-6	—
	18	103168-7	102618-7	87589-5
	20	103168-8	102618-8	—
	22	103168-9	—	—
	24	1-103168-0	1-102618-0	—
	26	1-103168-1	1-102618-1	87589-9
	30	—	1-102618-3	—
	32	1-103168-4	—	—
	34	1-103168-5	1-102618-5	—
	40	1-103168-8	—	—
	50	2-103168-3	2-102618-3	—
	60	2-103168-8	—	—
.150 [3.81]	6	103169-1	—	—
	8	103169-2	—	—
	10	103169-3	102619-3	—
	12	103169-4	—	—
	14	103169-5	102619-5	—
	16	103169-6	102619-6	—
	18	103169-7	—	—
	20	103169-8	102619-8	—
	24	—	1-102619-0	—
	26	1-103169-1	1-102619-1	—
	28	1-103169-2	—	—
	30	1-103169-3	1-102619-3	—
	34	1-103169-5	1-102619-5	—
	40	1-103169-8	1-102619-8	—
	50	2-103169-3	2-102619-3	—
	60	2-103169-8	—	—



Standard Profile Headers—
Shrouded, with .150 [3.81]
End Dimension, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square Straight
Post (with Plastic Holddowns)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, duplex plated
.000015 [0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

No. of Pos.	Part Nos.
40	1-104317-2



For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Standard Profile Headers—
Shrouded, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

.025 [0.64] Square Right-Angle
Post (with Detent Windows)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

Plating C—.000100-.000200
[0.00254-0.00508] tin-lead over
.000050 [0.00127] nickel on entire post

Printed Circuit Board Connectors (Continued)

End Dimension	No. of Pos.	Post Plating/Part Nos.		
		Plating A	Plating B	Plating C
.066 [1.68]	6	103166-1	102617-1	3-87579-5
	8	103166-2	102617-2	—
	10	103166-3	102617-3	87579-2
	12	103166-4 103164-4 ¹	—	—
	14	103166-5	—	—
	16	103166-6 103164-6 ¹	102617-6	—
	18	103166-7	—	87579-6
	20	103166-8	102617-8	—
	40	1-103166-8	—	—
	50	2-103166-3	—	—
.150 [3.81]	8	—	102570-2	—
	10	103167-2	102570-3	—
	12	103167-3	—	—
	14	103167-4	—	—
	16	—	102570-6	—
	20	103167-7	102570-8	—
	40	1-103167-7	102570-1	—

¹Pin protection on 3 sides.



.025 [0.64] Square Right-Angle
Post (with Pin Protection
on 3 Sides)

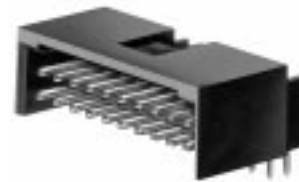
Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead on solder area, with entire post
underplated .000050 [0.00127] nickel

No. of Pos.	Part Nos.
12	103164-4
16	103164-6



Standard Profile Headers—
Shrouded, with .150 [3.81]
End Dimension, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

No. of Pos.	Part Nos.
10	87474-1
20	87474-2



.025 [0.64] Square Straight
Post (with Detent Windows
and Mounting Ears)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated .000030
[0.00076] gold over .000050 [0.00127]
nickel on entire post

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Standard Profile Headers—
Shrouded Bulkhead Type,
Double-Row, .100 x .100
[2.54 x 2.54] Centers

.025 [0.64] Square Straight
Post (with Detent Windows
and Mounting Ears)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated .000030
[0.00076] gold over .000050 [0.00127]
nickel on entire post

Printed Circuit Board Connectors (Continued)

End Dimension	No. of Pos.	Part Nos.
.066 [1.68]	34	1-87608-3
.066/.150 [1.68/3.81]	24	87496-9
.150 [3.81]	34	1-87605-3
	50	2-87605-1



ACTION PIN Headers—
Shrouded with .066 [1.68]
End Dimension,
Double-Row, .100 x .100
[2.54 x 2.54] Centers

.025 [0.64] Square
Straight Post (with Detent
Windows, for .093-.125
[.236-3.18] Thick PC Board)

Material and Finish:

Housing—Black thermoplastic, 94V-0
rated, high temperature compatible

Posts—Copper alloy, duplex plated
.000030 [0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end, with
entire post underplated .000050
[0.00127] nickel

End Dimension	No. of Pos.	Header Part Nos.
.066 [1.68]	6	102699-2
	8	102699-3
	10	102699-4
	12	102699-5
	16	102699-7
	20	102699-9
	30	1-102699-4
	60	2-102699-8
.150 [3.81]	10	102557-9
	40	102557-1



Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Board-to-Board)

Accessories: End Shrouds for
Machine-Applied Posts

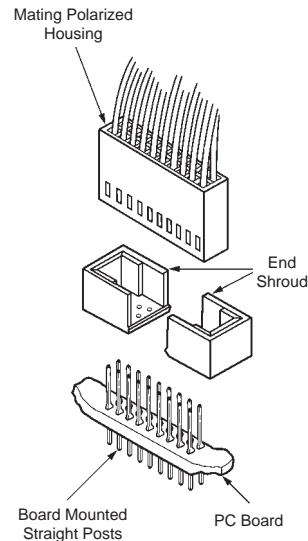
Double-Row, .100 x .100
[2.54 x 2.54] Centers

Material:

Black glass-filled polyester

Printed Circuit Board Connectors (Continued)

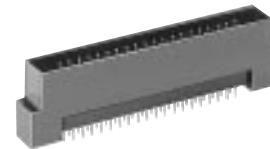
Part No. [102114-1](#)



Stacking Connectors, Shrouded

Headers, Double-Row
.025 x .025 [0.64 x 0.64]
Straight Post (with Pin
Protection)

No. of Pos.	Height	Header Part No.
52	.785 [19.94]	102871-1
52	1.200 [30.48]	102826-1



Material and Finish:

Housing—Brown glass-filled thermo-plastic, flame retardant

Posts—Phosphor bronze, duplex plated .000015 [0.00038] gold on mating area, .000100-.000200 [0.00254-0.00508] tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Receptacle Assemblies, Double-Row Board Mounted

Vertical Mount, Top Entry,
High Profile, Selectively
Loaded (with Standoffs)

Material and Finish:

Housing—Brown thermoplastic, flame retardant

Contacts—Phosphor bronze, duplex plated .000015 [0.00038] gold on mating area, .000050-.000100 [0.00127-0.00254] bright tin-lead on solder area, with entire contact underplated .000050 [0.00127] nickel

No. of Pos.	Receptacle Assembly Part No.
60 ¹ (52 Active)	102766-4

¹In addition to the active positions, each receptacle has four cavities on each end that are not loaded with contacts. These empty cavities aid in aligning the receptacle with header posts during mating.



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

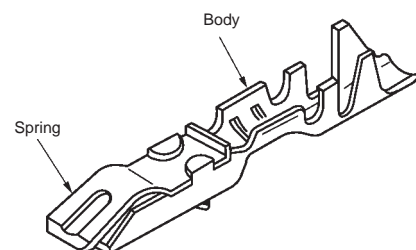
Locking Clip Contacts

Wire Crimp Contacts with Insulation Support Material and Finish:

Contact Spring—Stainless steel

Plating B—Selectively plated .000030
[0.00076] gold on contact area, with gold
flash over .000050 [0.00127] nickel on
entire contact

Plating C—.000100-.000200
[0.00254-0.00508] bright tin-lead
over .000050 [0.00127] nickel on
entire contact



Wire Size Range		Ins. Dia. Range	Finish	Part Nos.	
AWG	[mm2]			Strip Form	Loose Piece
30-28	0.05-0.09	.029-.039 0.74-0.49	Plating B	—	87191-1
			Plating C	—	87191-2
26-22	0.12-0.4	.038-.062 0.97-1.57	Plating B	87124-1	87165-1
			Plating C	87124-2	87165-2
20	0.5-0.6	.038-.062 0.97-1.57	Plating B	867052-2	—
			Plating C	867052-1	—

Wire-Applied Housings for Locking Clip Contacts, Single-Row, .100 [2.54] Centers

Material:

Glass-filled polyester, 94V-0 rated

Housing Configuration: Both ends
closed

No. of Pos.	Housing Part Nos. (Unstamped)
1	87175-2
2	87175-6
3	87175-8
4	1-87175-0
5	1-87175-2
6	1-87175-4
7	1-87175-6
10	2-87175-2



Wire-Applied Housings for Locking Clip Contacts, Double-Row, .100 x .100 [2.54 x 2.54] Centers

Material:

Glass-filled polyester, 94V-0 rated

Housing Configuration: Both ends
closed

No. of Pos.	Housing Part Nos. (Unstamped)
4	87133-1
6	87133-7
10	87133-2



Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

Mod. IV Pin and Receptacle Contacts

Crimp Snap-In (No-strip) Receptacles and Crimp Snap- In Pins with Insulation Support (Standard Pressure)

Material and Finish:

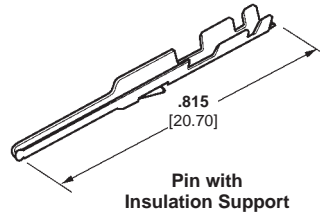
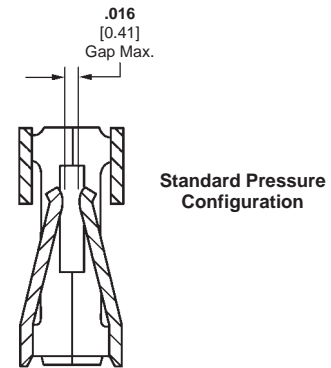
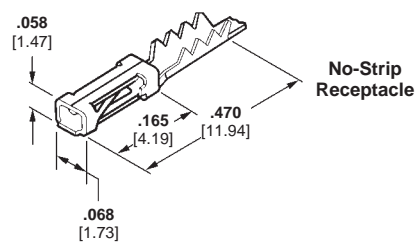
Beryllium copper or phosphor bronze
(see charts), plated as follows:

Plating A—Selectively plated .000030
[0.00076] gold on contact area, with gold
flash over .000050 [0.00127] nickel on
entire contact

Plating B—Selectively plated .000015
[0.00038] gold on contact area, with gold
flash over .000050 [0.00127] nickel on
entire contact

Plating C—.000100-.000200
[0.00254-0.00508] bright tin-lead over
.000030 [0.00076] nickel on entire
contact

Printed Circuit Board Connectors (Continued)



Crimp Snap-In (No-strip) Receptacles

Ins. Dia. Range	Finish	Part Nos.	
		Strip Form	Loose Piece
.040-.055	Plating A	—	102348-2
1.02-1.40	Plating C	87107-6	—

Crimp Snap-In Pins with Insulation Support

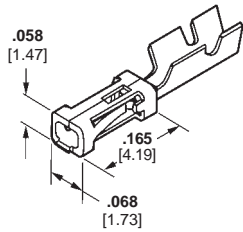
Wire Size Range		Ins. Dia. (Max.)	Finish	Part Nos.	
				Strip Form	Loose Piece
AWG	[mm2]				
26-22	0.12-0.4	.061 1.55	Plating A	—	102107-2
			Plating B	—	102107-1
			Plating C	102095-4	102107-3

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

Mod. IV Receptacle Contacts

Crimp Snap-In Receptacles with Insulation Support (Standard, Intermediate and High Pressure)



Material and Finish:

Beryllium copper, phosphor bronze or copper-tin-phosphor bronze (see charts, page 139), plated as follows:

Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead on crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating C—Selectively plated .000030 [0.00076] gold on contact area, with gold flash over .000050 [0.00127] nickel on entire contact

Plating D—Selectively plated .000015 [0.00038] gold on contact area, with gold flash over .000050 [0.00127] nickel on entire contact

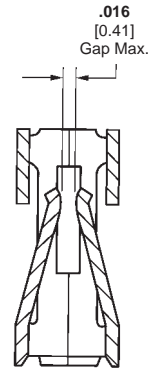
Plating E— .000100-.000200 [0.00254-0.00508] bright tin-lead over .000030 [0.00076] nickel on entire contact

Printed Circuit Board Connectors (Continued)

Standard Pressure (Mod. IV)

Wire Size Range		Ins. Dia. (Max.)	Material	Finish	Part Nos.	
AWG	[mm2]				Strip Form	Loose Piece
32-27	0.03-0.1	.040 1.02	Cu-Sn-Ph Bz	Plating A	102316-8	1-102316-4
			Cu-Sn-Ph Bz	Plating B	102316-6	1-102316-3
			Be Cu	Plating C	102917-1	102917-2
			Be Cu	Plating D	102917-5	—
			Cu-Sn-Ph Bz	Plating E	102316-5	—
26-22	0.12-0.4	.061 1.55	Cu-Sn-Ph Bz	Plating A	1-87756-7	1-87756-8
			Cu-Sn-Ph Bz	Plating B	1-87756-2	1-87756-6
			Cu-Sn-Ph Br	Plating E	87756-6	87756-7
			Be Cu	Plating C	87666-2	87667-2
			Be Cu	Plating D	87666-5	87667-5
24-20	0.2-0.6	.069 1.75	Be Cu	Plating E	87666-3	87667-3
			Cu-Sn-Ph Bz	Plating A	1-87523-8	1-87523-9
			Cu-Sn-Ph Bz	Plating B	1-87523-5	1-87523-6
			Be Cu	Plating C	85969-8	86016-2
			Be Cu	Plating D	85969-6	86016-5
			Cu-Sn-Ph Br	Plating E	87523-5	87523-6
			Be Cu	Plating E	85969-9	86016-3

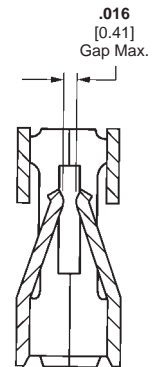
Standard Pressure



Intermediate Pressure (Mod. IV.v)

Wire Size Range		Ins. Dia. (Max.)	Material	Finish	Part Nos.	
AWG	[mm2]				Strip Form	Loose Piece
32-27	0.03-0.1	.040 1.02	Cu-Sn-Ph Bz	Plating A	102920-1	102920-2
			Be Cu	Plating C	102918-1	102918-2
26-22	0.12-0.4	.061 1.55	Cu-Sn-Ph Bz	Plating A	103171-4	103171-5
			Cu-Sn-Ph Bz	Plating B	103171-1	—
			Be Cu	Plating C	102548-5	102548-6
			Be Cu	Plating D	102548-1	102548-3
			Cu-Sn-Ph Bz	Plating A	2-87195-0	2-87195-1
24-20	0.2-0.6	.069 1.75	Cu-Sn-Ph Bz	Plating B	1-87195-7	1-87195-8
			Be Cu	Plating C	86492-6	87046-3
			Be Cu	Plating D	86492-2	87046-1
			Be Cu	Plating E	86492-9	87046-4

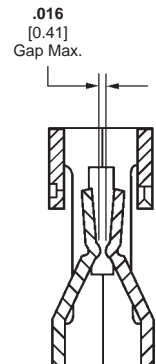
Intermediate Pressure



High Pressure (Mod. V)

Wire Size Range		Ins. Dia. (Max.)	Material	Finish	Part Nos.	
AWG	[mm2]				Strip Form	Loose Piece
32-27	0.03-0.1	.040 1.02	Ph Bz	Plating C	103455-1	103455-2
26-22	0.12-0.4	.061 1.55	Ph Bz	Plating C	87809-1	102128-1
			Ph Bz	Plating E	87809-2	102128-2
24-20	0.2-0.6	.069 1.75	Ph Bz	Plating C	87309-9	1-87309-4
			Ph Bz	Plating E	87309-8	1-87309-3

High Pressure



For Complete Product Information, Order Catalog 65816

**AMPMODU .025 [0.64]
Square Interconnection
System (Wire-to-Board)****Mod. IV Wire-Applied
Housings, Single-Row, .100
[2.54] Centers****Non-Polarized****Material:**

Black thermoplastic, flame retardant

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos.	
	Stamped ¹	Unstamped ²
1	—	7-87499-2
2	87499-3	87499-4
3	87499-5	87499-6
4	87499-7	87499-8
5	87499-9	1-87499-0
6	1-87499-1	1-87499-2
7	87499-1	27499-2
8	1-87499-3	—
10	1-87499-7	1-87499-8
11	1-87499-9	—
12	2-87499-1	2-87499-2
13	2-87499-3	—
14	2-87499-5	2-87499-6
16	2-87499-9	—
20	3-87499-7	—

¹Cavity identification, part number and date code stamped on housing where size permits.²No marking on housing.**Polarized (with Detent
Latching)****Material:**

Black thermoplastic, flame retardant

No. of Pos.	Part Nos. Unstamped ¹
3	102241-1
4	102241-2
5	102241-3
6	102241-4
7	102241-5
8	102241-6
9	102241-7
10	102241-8
12	1-102241-0
14	1-102241-2
16	1-102241-4
18	1-102241-6
20	1-102241-8

¹No marking on housing.**Note:**

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

Mod. IV Wire-Applied
Housings, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

Non-Polarized

Material:

Black thermoplastic, flame retardant

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos.	
	Stamped ¹	Unstamped ²
2	—	5-87456-3
4	5-87456-0	4-87456-9
6	87456-2	87456-1
8	87456-4	87456-3
10	87456-6	87456-5
12	87456-8	87456-7
14	87456-0	87456-9
16	87456-2	1-87456-1
18	87456-4	—
20	87456-6	1-87456-5
24	2-87456-0	1-87456-9
26	2-87456-2	—
30	2-87456-6	2-87456-5
34	3-87456-0	2-87456-9
40	3-87456-6	—
50	4-87456-0	3-87456-9

¹Cavity identification, AMP, part number and date code stamped on housing where size permits.

²No marking on housing.



Polarized

Material:

Black thermoplastic, flame retardant

No. of Pos.	Part Nos.	
	Stamped ¹	Unstamped ²
6	87977-1	2-87977-8
8	87977-2	2-87977-9
10	87977-3	3-87977-0
12	87977-4	—
14	—	3-87977-2
16	—	3-87977-3
20	—	3-87977-5
24	1-87977-0	—

¹Cavity identification, AMP, part number and date code stamped on housing where size permits.

²No marking on housing.



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

**AMPMODU .025 [0.64]
Square Interconnection
System (Wire-to-Board)**

Mod. IV Wire-Applied
Housings, Double-Row,
.100 x .100 [2.54 x 2.54]
Centers

Polarized (with Detent
Latching, with and without
Strain Relief/Pull Tab)

Material:

Black thermoplastic, flame retardant

Printed Circuit Board Connectors (Continued)

No. of Pos.	No. of Detents	Part Nos.		
		Without Strain Relief		With Strain Relief
		Stamped ¹	Unstamped ²	Stamped ¹
6	1	87631-2	87631-1	—
8	1	87631-4	87631-3	—
10	1	87631-6	87631-5	87922-1
12	1	87631-8	87631-7	87922-2
14	1	1-87631-0	87631-9	87922-3
16	1	1-87631-2	1-87631-1	87922-4
18	1	1-87631-4	1-87631-3	87922-5
20	2	1-87631-6	1-87631-5	87733-1
24	2	2-87631-0	1-87631-9	87733-3
26	2	2-87631-2	2-87631-1	87733-4
30	2	2-87631-6	2-87631-5	87733-6
32	2	2-87631-8	2-87631-7	—
34	2	3-87631-0	2-87631-9	87733-8
40	2	3-87631-6	3-87631-5	—

¹Cavity identification, AMP, part number and date code stamped on housing and/or strain relief where size permits.

²No marking on housing or strain relief.

**Center Polarized****Material:**

Black thermoplastic, flame retardant

No. of Pos.	Part Nos. Unstamped ¹
10	102387-1
14	102387-2
16	102387-3
20	102387-4
24	102387-5
26	102387-6
30	102387-7
34	102387-8
40	102387-9
44	1-102387-3
50	1-102387-0
60	1-102387-1
64	1-102387-2

¹No marking on housing.

**Note:**

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

Short Point Crimp Snap-In Receptacle Contacts

Material and Finish:

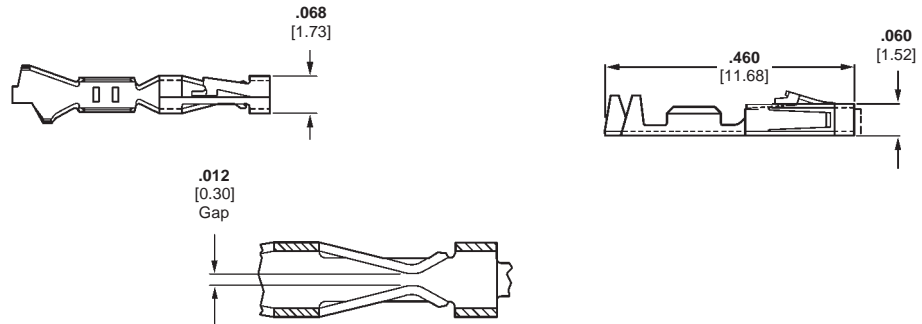
Copper alloy C7025, plated as follows:

Plating A—Duplex plated .000030 [0.00076] min. gold on contact area, .000050 [0.00127] min. tin-lead in crimp area, with entire contact under-plated .000050 [0.00127] min. nickel

Plating B—Duplex plated .000015 [0.00038] min. gold on contact area, .000050 [0.00127] min. tin-lead in crimp area, with entire contact under-plated .000050 [0.00127] min. nickel

Plating C—.000100 [0.00254] min. bright tin-lead over .000050 [0.00127] min. nickel on entire contact

Printed Circuit Board Connectors (Continued)



Section

Wire Size Range		Ins. Dia. Range	Finish	Contact Part No. (Standard Pressure)	
AWG	[mm2]			Strip Form	Loose Piece
32-28	0.03-0.08	.025-.060 0.64-1.52	Plating A	104481-4	104481-8
			Plating B	104481-3	—
26-22	0.13-0.3	.025-.060 0.64-1.52	Plating A	104480-4	104480-9
			Plating B	104480-3	104480-8
			Plating C	104480-2	104480-7
24-20	0.2-0.5	.025-.060 0.64-1.52	Plating A	104479-4	104479-7
			Plating B	104479-3	104479-6
			Plating C	104479-2	104479-5

MTE Receptacle Assemblies— Strip Form Plain, Single-Row, .100 [2.54] Centers

Material and Finish:

Housing—Black thermoplastic, 94V-0 rated

Contacts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000050 [0.00127] min. tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating C—.000100 [0.00254] bright tin-lead over .000050 [0.00127] nickel on entire contact

Note: Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max. Mating post length for preloaded housings is .200 [5.08] min., .250 [6.35] max.



Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the AMP Manual Pistol Grip Tool.

No. of Pos.	Housing Quantities Per Strip Segment	Strip Form Receptacle Assembly 26-22 AWG [0.12-0.3mm2] Wire			Unloaded Housings
		Plating A	Plating B	Plating C	
2	10	—	103975-1	103974-1	103688-1
3	8	—	—	103974-2	—
4	5	—	—	103974-3	103688-3
5	4	103976-4	103975-4	103974-4	—
6	4	—	103975-5	—	—

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MTE Receptacle Assemblies— Strip Form Polarized/Latching, Single-Row, .100 [2.54] Centers

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area, .000050
[0.00127] min. tin-lead in crimp area,
with entire contact underplated .000050
[0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area, .000050
[0.00127] min. tin-lead in crimp area,
with entire contact underplated .000050
[0.00127] nickel

Plating C—.000100 [0.00254] bright
tin-lead over .000050 [0.00127] nickel
on entire contact

Note: Insulation displacement contacts
accept an insulation diameter of .030 [0.76]
min. to .054 [1.37] max. with an insula-
tion wall thickness of .015 [0.38] max.
Mating post length for preloaded housings
is .200 [5.08] min., .250 [6.35] max.

Printed Circuit Board Connectors (Continued)



Preassembled housings in strip
form are available in positions
2 thru 12. For ease of handling,
positions 2 thru 5 are recom-
mended when using the AMP
Manual Pistol Grip Tool.

No. of Pos. Segment	Quantities Per Strip	HousingStrip Form Receptacle Assembly 30-26 AWG [0.05-0.15mm2] Wire			Strip Form Receptacle Assembly 26-22 AWG [0.12-0.3mm2] Wire			Unloaded Housings
		Plating A	Plating B	Plating C	Plating A	Plating B	Plating C	
2	10	103961-1	103960-1	103959-1	103958-1	103957-1	103956-1	104257-1
3	8	103961-2	103960-2	—	103958-2	103957-2	103956-2	104257-2
4	5	103961-3	103960-3	103959-3	103958-3	103957-3	103956-3	104257-3
5	4	103961-4	103960-4	103959-4	103958-4	103957-4	103956-4	104257-4
6	4	—	103960-5	103959-5	103958-5	103957-5	—	104257-5
7	2	—	103960-6	—	103958-6	103957-6	—	104257-6
8	2	—	—	103959-7	103958-7	103957-7	—	104257-7
9	2	—	—	—	—	103957-8	—	104257-8
10	2	103961-9	—	—	103958-9	103957-9	103956-9	104257-9
11	2	—	—	—	—	—	—	1-104257-0
12	2	—	—	—	1-103958-1	—	—	1-104257-1

MTE Receptacle Assemblies— Strip Form with Guide Ribs, Single-Row, .100 [2.54] Centers

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated as follows:

Plating—Duplex plated .000015
[0.00038] gold on contact area, .000050
[0.00127] min. tin-lead in crimp area,
with entire contact underplated .000050
[0.00127] nickel

Note: Insulation displacement contacts
accept an insulation diameter of .030 [0.76]
min. to .054 [1.37] max. with an insula-
tion wall thickness of .015 [0.38] max.
Mating post length for preloaded housings
is .200 [5.08] min., .250 [6.35] max.

No. of Pos.	Housing Quantities Per Strip Segment	Strip Form Receptacle Assembly 26-22 AWG [0.12-0.3mm2] Wire	Unloaded Housings
2	10	103969-1	103648-1
3	8	—	103648-2
4	5	103969-3	103648-3
5	4	103969-4	103648-4
8	2	—	103648-7
10	2	—	103648-9



Preassembled housings in strip
form are available in positions
2 thru 12. For ease of handling,
positions 2 thru 5 are recom-
mended when using the AMP
Manual Pistol Grip Tool.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MTE High Pressure Receptacle Assemblies—Strip Form Plain, Single-Row, .100 [2.54] Centers

Material and Finish:

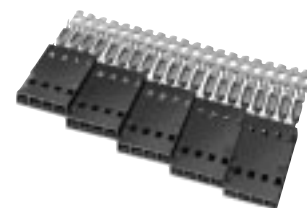
Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, duplex plated
.000030 [0.00076] gold on contact area,
.000050 [0.00127] min. tin-lead in
crimp area, with entire contact under-
plated .000050 [0.00127] nickel

Note: Insulation displacement contacts
accept an insulation diameter of .030 [0.76]
min. to .054 [1.37] max. with an insula-
tion wall thickness of .015 [0.38] max.
Mating post length for preloaded housings
is .200 [5.08] min., .250 [6.35] max.

Printed Circuit Board Connectors (Continued)

No. of Pos.	Housing Quantities Per Strip Segment	Strip Form Receptacle Assembly 26-22 AWG [0.12-0.3mm2] Wire
2	10	104439-1
3	5	104439-2
4	5	104439-3
5	4	104439-4
7	2	104439-6



Preassembled housings in strip
form are available in positions
2 thru 10. For ease of handling,
positions 2 thru 5 are recom-
mended when using the AMP
Manual Pistol Grip Tool.

MTEPin Assemblies, Shrouded—Strip Form Polarized/Latching, Single-Row, .100 [2.54] Centers

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated as
follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area, .000050
[0.00127] min. tin-lead in crimp area,
with entire contact underplated .000050
[0.00127] nickel

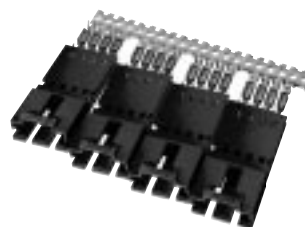
Plating B—Duplex plated .000015
[0.00038] gold on contact area, .000050
[0.00127] min. tin-lead in crimp area,
with entire contact underplated .000050
[0.00127] nickel

Plating C—.000100 [0.00254] bright
tin-lead over .000050 [0.00127] nickel
on entire contact

Note: Insulation displacement contacts
accept an insulation diameter of .030 [0.76]
min. to .054 [1.37] max. with an insula-
tion wall thickness of .015 [0.38] max.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.



Preassembled housings in strip
form are available in positions
2 thru 11. For ease of handling,
positions 2 thru 5 are recom-
mended when using the AMP
Manual Pistol Grip Tool.

No. of Pos.	Housing Quantities Per Strip Segment	Strip Form Pin Assembly 30-26 AWG [0.05-0.15mm2] Wire		Strip Form Pin Assembly 26-22 AWG [0.12-0.3mm2] Wire			Unloaded Housings
		Plating A	Plating B	Plating A	Plating B	Plating C	
2	8	103949-1	103948-1	103946-1	103945-1	103944-1	103653-1
3	5	—	103948-2	103946-2	103945-2	103944-2	103653-2
4	4	—	103948-3	103946-3	103945-3	103944-3	103653-3
5	4	—	103948-4	103946-4	103945-4	103944-4	103653-4
6	2	—	—	—	103945-5	—	103653-5
7	3	—	—	—	—	—	103653-6
8	2	—	—	—	—	103944-7	103653-7
9	2	—	—	—	—	—	103653-8
10	2	—	—	—	103945-9	—	—

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MTE Pin Assemblies—Strip Form with Guide Ribs, Single- Row, .100 [2.54] Centers

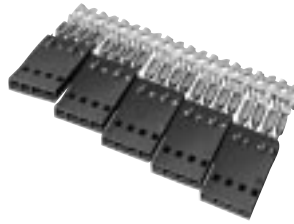
Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated
.000015 [0.00038] gold on contact area,
.000050 [0.00127] min. tin-lead in
crimp area, with entire contact under-
plated .000050 [0.00127] nickel

Note: Insulation displacement contacts
accept an insulation diameter of .030 [0.76]
min. to .054 [1.37] max. with an insula-
tion wall thickness of .015 [0.38] max.

Printed Circuit Board Connectors (Continued)



Preassembled housings in strip
form are available in positions
2 thru 12. For ease of handling,
positions 2 thru 5 are recom-
mended when using the AMP
Manual Pistol Grip Tool.

No. of Pos.	Housing Quantities Per Strip Segment	Strip Form Pin Assembly 30-26 AWG [0.05-0.15mm2] Wire	Strip Form Pin Assembly 26-22 AWG [0.12-0.3mm2] Wire	Unloaded Housings
2	10	—	103951-1	—
3	5	—	103951-2	104503-2
4	5	103954-3	103951-3	—

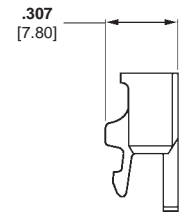
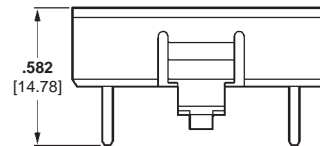
MTE Coupling Shrouds for Receptacle Assemblies with Guide Ribs

Single-Row

Material:

Black thermoplastic, 94V-0 rated

No. of Pos.	Single-Row Coupling Shroud
4	103680-1

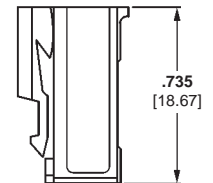
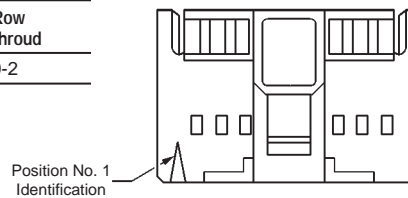


Double-Row

Material:

Black thermoplastic, 94V-0 rated

No. of Pos.	Double-Row Coupling Shroud
20	104500-2



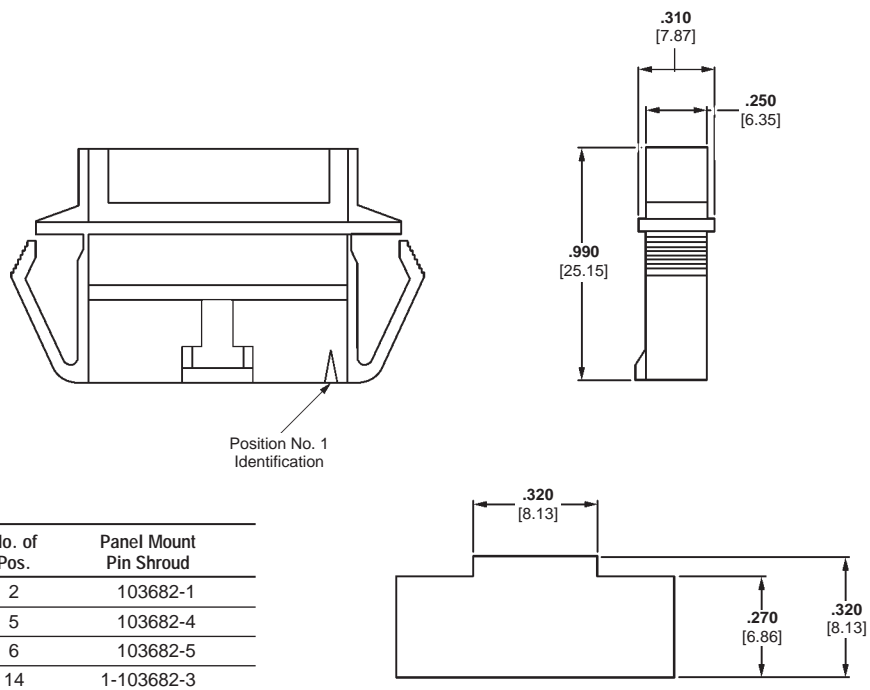
For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MTEPanel Mount Pin Shrouds
for Pin Assemblies with Guide
Ribs, Single-Row

Material:

Black thermoplastic, 94V-0 rated



No. of Pos.	Panel Mount Pin Shroud
2	103682-1
5	103682-4
6	103682-5
14	1-103682-3

MTE Headers, Shrouded
Polarized/Latching,
Single-Row .100 [2.54]
Centers

.025 [0.64] Square
Straight Post (With or Without
Holddown)



Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area, .000100
[0.00254] min. tin-lead on solder area,
with entire post underplated .000050
[0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area, .000100
[0.00254] min. tin-lead on solder area,
with entire post underplated .000050
[0.00127] nickel

Plating C—.000100 [0.00254] tin-lead
over .000050 [0.00127] nickel on entire
post

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

No. of Pos.	Polarized/Latching Header With Holddown			Polarized/Latching Header Without Holddown		
	Plating A	Plating B	Plating C	Plating A	Plating B	Plating C
2	103908-1	103670-1	103669-1	103735-1	103638-1	103639-1
3	103908-2	103670-2	103669-2	103735-2	103638-2	103639-2
4	103908-3	103670-3	103669-3	103735-3	103638-3	103639-3
5	103908-4	103670-4	103669-4	103735-4	103638-4	103639-4
6	103908-5	103670-5	103669-5	103735-5	103638-5	103639-5
7	103908-6	103670-6	103669-6	103735-6	103638-6	103639-6
8	103908-7	103670-7	103669-7	103735-7	103638-7	103639-7
9	—	103670-8	103669-8	—	103638-8	103639-8
10	103908-9	103670-9	103669-9	103735-9	103638-9	103639-9
11	—	1-103670-0	—	1-103735-0	—	—
12	1-103908-1	1-103670-1	—	1-103735-1	1-103638-1	1-103639-1
13	—	—	—	—	1-103638-2	—
14	1-103908-3	1-103670-3	—	1-103735-3	—	—
15	—	1-103670-4	—	—	1-103638-4	—
16	—	1-103670-5	—	—	1-103638-5	—
18	—	1-103670-7	—	—	—	—
20	1-103908-9	1-103670-9	—	—	1-103638-9	1-103639-9
24	—	2-103670-3	—	—	—	—
25	—	2-103670-4	—	—	—	—

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MTE Headers, Shrouded
Latching, Single-Row .100
[2.54] Centers

.025 [0.64] Square
Right-Angle Post

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts—Copper alloy, plated as follows:

Plating A—Duplex plated .000030
[0.00076] gold on contact area, .000100
[0.00254] min. tin-lead on solder area,
with entire post underplated .000050
[0.00127] nickel

Plating B—Duplex plated .000015
[0.00038] gold on contact area, .000100
[0.00254] min. tin-lead on solder area,
with entire post underplated .000050
[0.00127] nickel

Plating C—.000100 [0.00254] tin-lead
over .000050 [0.00127] nickel on entire
post

Printed Circuit Board Connectors (Continued)



No. of Pos.	Latching Header With Holddown			Latching Header Without Holddown		
	Plating A	Plating B	Plating C	Plating A	Plating B	Plating C
2	103904-1	103673-1	103672-1	103906-1	103635-1	103634-1
3	103904-2	103673-2	103672-2	103906-2	103635-2	103634-2
4	103904-3	103673-3	103672-3	103906-3	103635-3	103634-3
5	103904-4	103673-4	103672-4	103906-4	103635-4	103634-4
6	103904-5	103673-5	103672-5	103906-5	103635-5	103634-5
7	—	103673-6	—	103906-6	103635-6	103634-6
8	103904-7	103673-7	103672-7	103906-7	103635-7	103634-7
9	—	103673-8	—	103906-8	103635-8	103634-8
10	103904-9	103673-9	103672-9	103906-9	103635-9	103634-9
11	—	1-103673-0	—	—	—	—
12	1-103904-1	1-103673-1	—	1-103906-1	1-103635-1	—
14	—	1-103673-3	—	—	1-103635-3	—
15	—	1-103673-4	—	—	—	—
16	—	—	—	—	—	1-103634-5
18	—	1-103673-7	—	—	—	—
20	—	1-103673-9	—	—	—	—
25	—	2-103673-4	—	—	—	—

MTE Headers, Shrouded
Latching and High-Temp,
Shrouded Polarized/Latching,
Single-Row .100 [2.54]
Centers

.025 [0.64] Square Straight
Post (With Retention Tails and
PC Board Orientation)

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Posts A—Copper alloy, plated
.000100-.000200 [0.00254-0.00508]
tin-lead over .000050 [0.00127] nickel
on entire post

Posts B—Copper alloy, duplex plated
.000015 [0.00038] gold on contact area,
.000100-.000200 [0.00254-0.00508]
matte tin-lead on solder tail, with entire
post underplated .000050 [0.00127]
nickel

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

No. of Pos.	Post Style	Latching Header	Polarized/Latching Header, High-Temp
2	A	104450-1	—
	B	—	104809-1
3	A	104450-2	—
4	A	104450-3	—
5	A	104450-4	—



For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MTE Headers, Shrouded High-Temp, Polarized/Latching (Thru-Hole, SMT Compatible) Single-Row, .100 [2.54] Centers

.025 [0.64] Square Straight Post (With or Without Holddown)

Material and Finish:

Housing—Black thermoplastic, high temperature, 94V-0 rated

Posts—Copper alloy, duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] matte tin-lead on solder tail, with entire post underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Straight Header	
	With Holddown	Without Holddown
2	104362-1	—
3	104362-2	104363-2
4	104362-3	—
5	104362-4	104363-4
6	104362-5	104363-5
8	104362-7	104363-7
10	—	104363-9



.025 [0.64] Square Right-Angle Post (With Holddown)

Material and Finish:

Housing—Black thermoplastic, high temperature, 94V-0 rated

Posts—Copper alloy, duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] matte tin-lead on solder tail, with entire post underplated .000050 [0.00127] nickel

No. of Pos.	Right-Angle Header With Holddown
2	104361-1
3	104361-2
4	104361-3
5	104361-4
6	104361-5
10	104361-9



Interchangeable Contacts Wire Crimp (Snap-In)

Pins

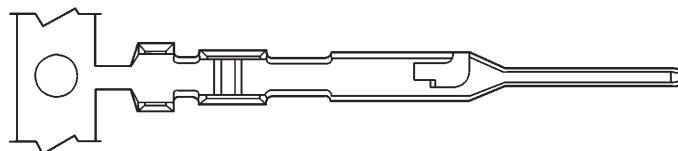
Material and Finish:

Phosphor bronze, plated as follows:

Plating A—Duplex plated .000030 [0.00076] gold on contact area, .000030 [0.00076] min. tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating B—Duplex plated .000015 [0.00038] gold on contact area, .000030 [0.00076] min. tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating C—.000100 [0.00254] min. bright tin-lead over .000050 [0.00127] nickel on entire contact



Wire Size Range		Ins. Dia. Range	Finish	Contact Part No. (Standard Pressure)	
AWG	[mm2]			Strip Form	Loose Piece
32-28	0.03-0.08	.025-.054 0.64-1.37	Plating A	—	104506-7
			Plating B	—	104506-5
			Plating A	104505-6	104505-7
			Plating B	104505-4	104505-5
26-22	0.14-0.32	.036-.054 0.91-1.37	Plating C	—	104505-3

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

MT Receptacle Assemblies,
Double-Row .100 x .100
[2.54 x 2.54] Centers

Housings Preloaded with
Standard Pressure Contacts

Material and Finish:

Housing—Black thermoplastic, flame retardant

Contacts—Copper alloy, duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Nos. (Stamped)			Unloaded Housings
	Wire Size Range			
	30-26 AWG [0.05-0.15 mm2]	26-22 AWG [0.12-0.3 mm2]	22-20 AWG [0.3-0.6 mm2]	
6	—	102398-1	—	—
8	—	102398-2	—	—
10	102393-3	102398-3	—	—
12	—	102398-4	—	—
14	102393-5	102398-5	—	—
16	102393-6	102398-6	102448-6	102394-6
18	—	102398-7	102448-7	102394-7
20	102393-8	102398-8	102448-8	102394-8
24	1-102393-0	1-102398-0	—	—
26	1-102393-1	1-102398-1	1-102448-1	—
34	—	1-102398-5	—	1-102394-5
40	1-102393-8	1-102398-8	1-102448-8	—
50	2-102393-3	2-102398-3	2-102448-3	—



MT Receptacle Assemblies,
Double-Row
.100 x .100 [2.54 x 2.54]
Centers

Housings Preloaded with High
Pressure Contacts

Material and Finish:

Housing—Black thermoplastic, flame retardant

Contacts—Copper alloy, duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin-lead in crimp area, with entire contact underplated .000050 [0.00127] nickel

No. of Pos.	Part Nos. (Stamped)	
	Wire Size Range	
	30-26 AWG [0.05-0.15 mm ²]	26-22 AWG [0.12-0.3 mm ²]
6	102693-1	—
10	—	102694-3
12	—	102694-4
16	—	102694-6

¹Cavity identification — first cavity (one side); AMP Part No. and date code stamped on housing where size permits.



MT Low Profile and Standard
Profile Covers for Double-Row
Receptacle Assemblies

Material:

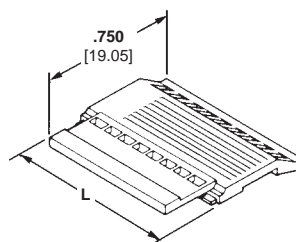
Black thermoplastic, flame retardant

Note: See page 100 for part numbers.

Low Profile Front Covers

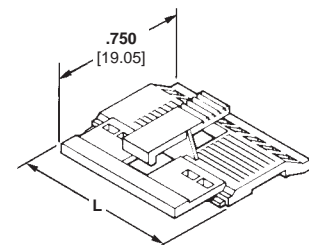
A - Polarizing Cover

(Mates with AMPMODU 4-sided shrouded headers. Refer to pages 82, 83 & 84.)



B - Latching Cover

(Mates with AMPMODU 4-sided shrouded headers with extraction slot. Refer to pages 82, 83 & 84.)



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

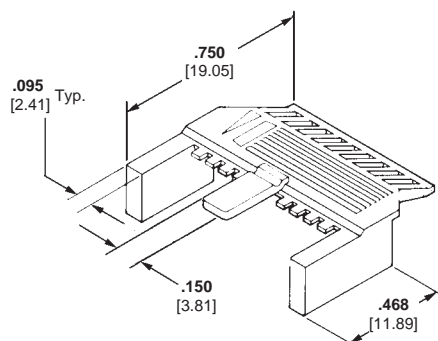
MT Low Profile and Standard Profile Covers for Double-Row Receptacle Assemblies

Printed Circuit Board Connectors (Continued)

Low Profile Front Covers (Continued)

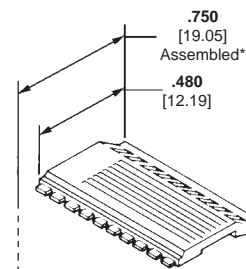
C - Ejection Cover

(Mates with AMP-LATCH universal ejection style pin headers equipped with latching ears, Part No. 102185-2 (with push tabs) or Part No. 102312-2 (without push tabs), see AMP Catalog 82012.)



D - Non-Polarizing Cover

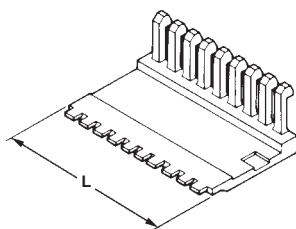
(Designed for use with shielded connectors or for non-polarizing applications.)



*Dimension applies to cover when installed on connector housing.

Low Profile Back Covers

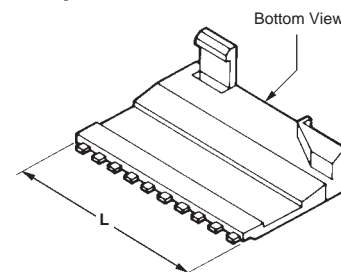
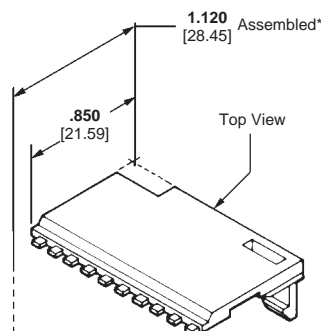
**E - For Shielding and
Non-Shielding Applications**
(For use with any low profile cover.)



Standard Profile Front Covers

G - Hermaphroditic Cover

(Two hermaphroditic covers can be used or one hermaphroditic cover can be used with an Ejection Cover.)



No. of Pos.	Low Profile Covers				Standard Profile Covers	
	Front Covers				Back Covers	G
	A Polarizing	B Latching	C Ejection	D Non-Polarizing	E Shielding and Non-Shielding Applications	Hermaphroditic
6	102540-1	—	—	102541-1	102536-1	—
8	102540-2	—	—	—	102536-2	—
10	102540-3	—	102537-3	102541-3	102536-3	—
12	102540-4	102681-1	—	—	102536-4	—
14	—	102681-2	102537-5	—	102536-5	—
16	—	102681-3	102537-6	—	102536-6	102396-6
18	—	102681-4	—	102541-7	102536-7	—
20	—	102681-5	102537-8	102541-8	102536-8	—
24	—	102681-7	—	—	1-102536-0	—
26	—	102681-8	1-102537-1	—	1-102536-1	—
34	—	1-102681-2	—	—	1-102536-5	—
40	—	—	1-102537-8	1-102541-8	1-102536-8	—
50	—	2-102681-0	2-102537-3	—	2-102536-3	—

For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

**MT Shielded Headers for use
with Shielded Receptacle
Assemblies**

**AMPMODU Right-Angle
Headers PC Board Mounted**

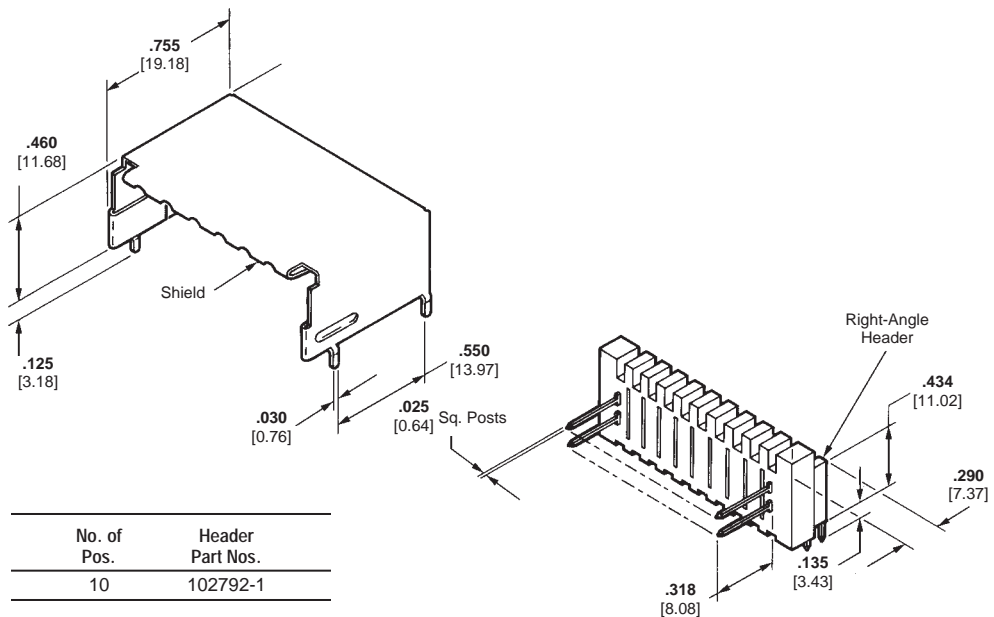
Material and Finish:

Housing—Black thermoplastic,
flame retardant

Posts—Copper alloy, plated .000030
[0.00076] gold over .000050 [0.00127]
nickel on entire post

Shield—Copper alloy, .020 [0.51]
thick; pretinned .000030 [0.00076] min.

Printed Circuit Board Connectors (Continued)



No. of Pos.	Header Part Nos.
10	102792-1

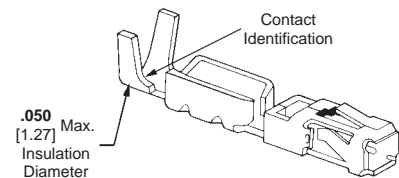
MT Replacement Receptacle Contacts

Insulation Displacement Contacts

Material and Finish:

Copper alloy, duplex plated .000030
[0.00076] gold on contact area,
.000100-.000200 [0.00254-0.00508]
tin-lead in crimp area, with entire contact
underplated .000050 [0.00127] nickel

Wire Size Range		Standard Pressure Receptacle	
AWG	[mm2]	Contact Ident.	Part No.
22-20	0.3-0.6	3	102449-3



Level V IDC Connectors

Receptacle Assemblies, Double-Row, .125 x .125 [3.18 x 3.18] Centers

Housings Preloaded with Insulation Displacement Crimp Receptacle Contacts

Material and Finish:

Housing—Black thermoplastic, flame
retardant

Contacts—Copper alloy, duplex plated
.000050 [0.00127] gold on contact area,
.000100 [0.00254] min. bright tin-lead
in crimp area, with entire contact under-
plated .000050 [0.00127] nickel

No. of Pos.	Receptacle Assembly (Stamped ¹) for 26-22 AWG [0.12-0.3 mm2] Wire
8	102935-4
10	102935-6
16	1-102935-2
20	1-102935-6
24	1-102935-9
32	2-102935-8
40	3-102935-6

¹White ink stamped, one side—8- thru 12-position with AMP and arrow; 14- and 16-position with AMP, part no., and arrow; 18- thru 40-position with AMP, part no., date code and arrow.



For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

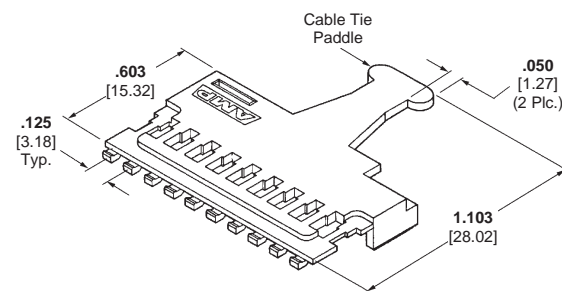
Level V IDC Connectors

Hermaphroditic Covers for
Level V IDC Receptacle
Assemblies, Double-Row,
.125 x .125 [3.18 x 3.18]
Centers

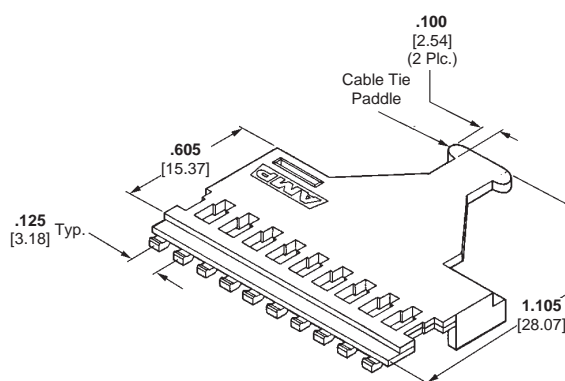
Material:

Black thermoplastic, flame retardant,
94V-0 rated

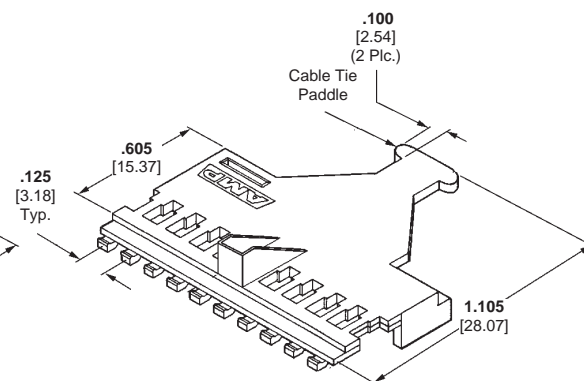
Printed Circuit Board Connectors (Continued)



**Cover 103058 Series
with Cable Tie Paddle**



**Cover 103349 Series
with Wide Cable Tie Paddle**



**Cover 103350 Series
with Wide Cable Tie Paddle
and Polarization**

No. of Pos. (Housing Size)	Cover Part Nos.		
	With Cable Tie Paddle	With Wide Cable Tie Paddle	With Wide Cable Tie Paddle and Polarization
8	—	103349-4	103350-4
10	103058-3	—	—
16	—	103349-1	—
20	—	103349-5	103350-5
32	—	103349-2	103350-2
40	—	103349-3	103350-3

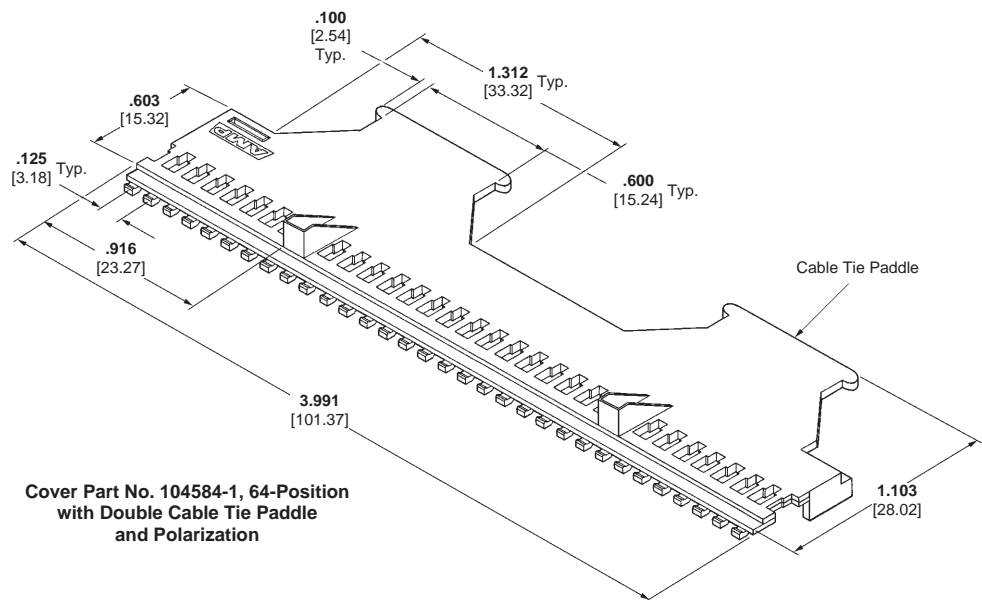
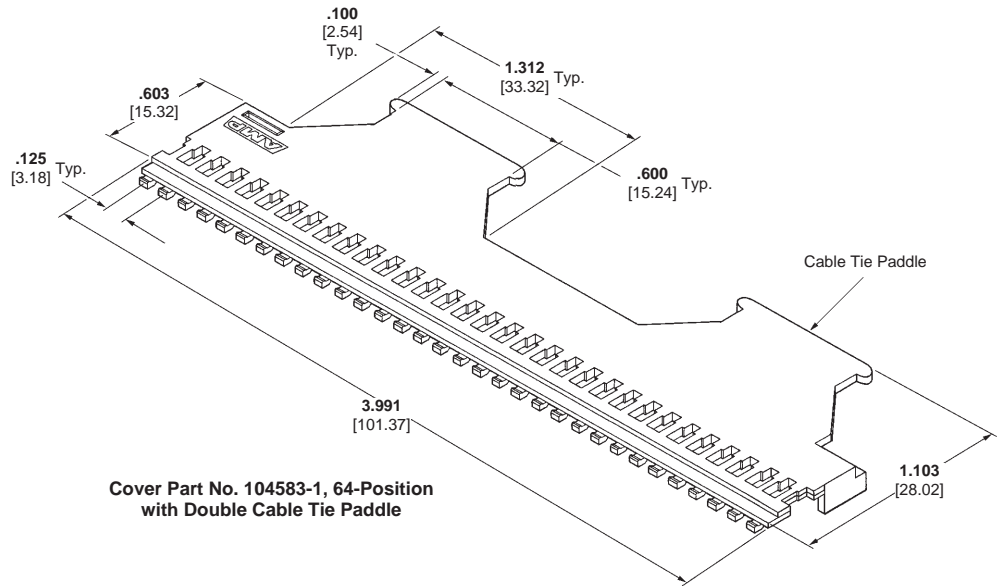
For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

Level V IDC Connectors

Hermaphroditic Covers for
Level V IDC Receptacle
Assemblies, Double-Row,
.125 x .125 [3.18 x 3.18]
Centers

Printed Circuit Board Connectors (Continued)



For Complete Product Information, Order Catalog 65816

AMPMODU .025 [0.64] Square Interconnection System (Wire-to-Board)

Mini-Tandem Spring Receptacles

Mini-Tandem Spring Receptacle Housings, Single-Row

.100 [2.54] Centers

Material—Black glass-filled polyester, 94V-0 rated

Printed Circuit Board Connectors (Continued)

No. of Pos.	Housing Part No.
2	530554-1
3	530554-2
4	530554-3
16	1-530554-5



Mini-Tandem Spring Receptacle Housings, Double-Row

.100 x .100 [2.54 x .254]
Centers

Material—Black glass-filled polyester, 94V-0 rated

No. of Pos.	Housing Part No.
6	530902-1



Mini-Tandem Spring Contacts

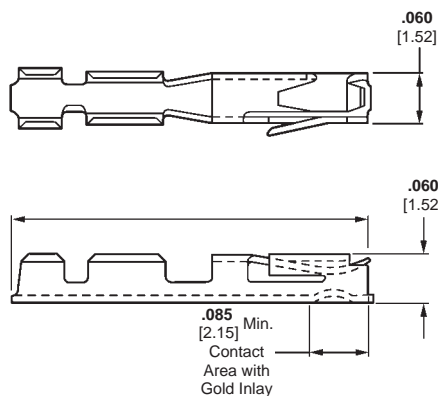
Receptacle Contacts

Material and Finish:

Phosphor bronze, plated as follows:

Plating A—Duplex plated .00015 [0.00038] gold inlay on contact area, tin in crimp area, with entire contact under-plated .000050 [0.00127] nickel

Plating B—.000100 [0.00254] min. bright tin over .000030 [0.00076] nickel on entire contact



Wire Size Range AWG	Ins. Dia. Range [mm ²]	Finish	Contact Part No.			
			Standard Pressure		High Pressure	
			Strip Form	Loose Piece	Strip Form	Loose Piece
32-28	0.03-0.08	.025-.054 0.64-1.37	Plating A	—	530901-3	—
26-22	0.14-0.32	.036-.054 0.91-1.37	Plating A	—	530553-5	531224-6
			Plating B	530553-6	530553-7	531224-7
					531224-2	—

For Complete Product Information, Order Catalog 65816

AMPMODU 50/50 Grid Connector System (.050 x .050 [1.27 x 1.27] Centers), Board-to-Board

Double Row Vertical Receptacles With Standard Holddowns

Material and Finish:

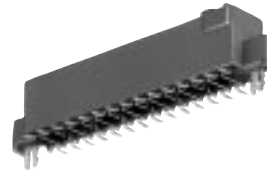
Housing—Glass-filled thermoplastic, black, 94V-0 rated

Contacts—Beryllium copper; duplex plated 0.00076 [0.00030] gold in mating area, 0.00381 [0.00150] tin-lead on solder tail, with entire contact under-plated 0.00127 [0.00050] nickel

Holddowns—Copper alloy; plated 0.00381 [0.00150] tin-lead over 0.00127 [0.00050] nickel

Printed Circuit Board Connectors (Continued)

No. of Positions	Part Numbers
10	104652-1
20	104652-2
30	104652-3
40	104652-4
50	104652-5
60	104652-6
70	104652-7
80	104652-8
100	1-104652-0



Double Row Receptacles With Asymmetrical Holddowns for Polarization to PC Board

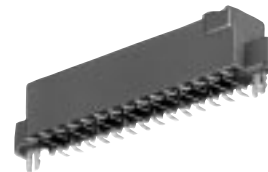
Material and Finish:

Housing—Glass-filled thermoplastic, black, 94V-0 rated

Contacts—Beryllium copper; duplex plated .000030 [0.00076] gold in mating area, .000150 [0.00381] tin-lead on solder tail, with entire contact under-plated .000050 [0.00127] nickel

Holddown—Copper alloy; plated .000150 [0.00381] tin-lead over .000050 [0.00127] nickel

No. of Positions	Part Numbers
60	104786-6



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65816 or 889092

AMPMODU 50/50 Grid Connector System (.050 x .050 [1.27 x 1.27] Centers), Board-to-Board

Double Row Vertical Headers With Standard Holddowns

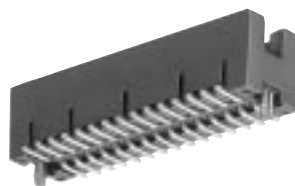
Material and Finish:

Housing—Glass-filled thermoplastic, black, 94V-0 rated

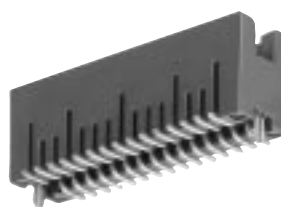
Contacts—Phosphor bronze; duplex plated 0.00076mm [.000030 in.] gold in mating area, 0.00381mm [.000150 in.] tin-lead on solder tail, with entire contact underplated 0.00127mm [.000050 in.] nickel

Holddowns—Copper alloy; plated 0.00381mm [.000150 in.] tin-lead over 0.00127mm [.000050 in.] nickel

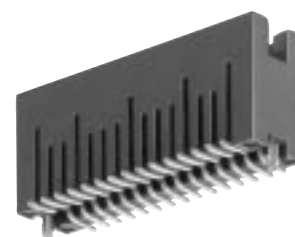
Printed Circuit Board Connectors (Continued)



For 6.35mm [.250 in.]
Stacking Height



For 8.13mm [.320 in.]
Stacking Height



For 9.91mm [.390 in.]
Stacking Height

No. of Positions	Header Part Numbers		
	6.35mm [.250 in.] Stacking Height	8.13mm [.320 in.] Stacking Height	9.91mm [.390 in.] Stacking Height
10	—	104656-1	—
20	104655-3	104656-2	104693-2
30	104655-4	104656-3	104693-3
40	104655-5	104656-4	104693-4
50	104655-6	104656-5	104693-5
60	104655-7	—	104693-6
70	104655-8	104656-7	104693-7
80	104655-9	104656-8	104693-8
100	1-104655-1	1-104656-0	1-104693-0

For Complete Product Information, Order Catalog 889092

Double Row Right-Angle Headers — Non-Latching

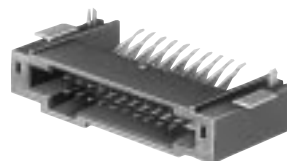
Material and Finish:

Housing — Liquid crystal polymer, black, 94V-0 rated

Contacts — Brass; duplex plated .000030 [0.00076] gold in mating area, .000150 [0.000381] tin-lead on solder tail, with entire contact underplated .000050 [0.00127] nickel

Holddown — Copper alloy; plated .0000150 [0.00381] tin-lead over .000050 [0.00127] nickel

No of Pos.	Header Part Numbers
80	104894-8
100	1-104894-0



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82643

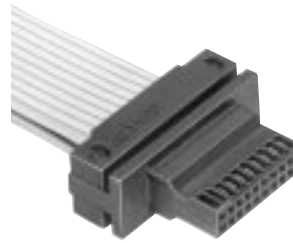
**AMPMODU 50/50 Grid
Connector System (.050 x
.050 [1.27 x 1.27] Centers),
Cable-to-Board****Double Row Receptacles
Connectors without Latch****Material and Finish:**

Housing — Glass-filled thermoplastic, black, 94V-0 rated

Contacts — Phosphor bronze; duplex plated .000030 [0.00076] minimum gold in mating area, .000050 [0.00127] minimum bright tin-lead in termination area, with entire contact underplated .000050 [0.00127] minimum nickel

Printed Circuit Board Connectors (Continued)

No of Pos.	Receptacle Part Numbers
10	104893-1
20	104893-2

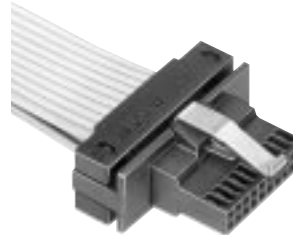
**Double Row Receptacles
with Latch****Material and Finish:**

Housing — Thermoplastic, black, 94V-0 rated

Latch — Stainless steel

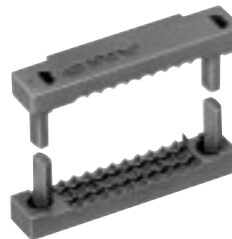
Contacts — Phosphor bronze; duplex plated .000030 [0.00076] minimum gold in mating area, .000050 [0.00127] minimum bright tin-lead in termination area, with entire contact underplated .000050 [0.00127] minimum nickel

No of Pos.	Receptacle Part Numbers
80	104892-8

**Terminating Covers for Cable
Connectors****Material:**

Glass-filled thermoplastic, black, 94V-0 rated

No of Pos.	Terminator Cover Part Numbers
10	104891-1
20	104891-2
50	104891-5
80	104891-8



For Complete Product Information, Order Catalog 82643

AMPMODU System 50 Connectors (.050 x .100 [1.27 x 2.54] Centers), Board-to-Board

Thru-Hole Headers—
Shrouded, .050 [1.27] Centers

Single Row, Vertical

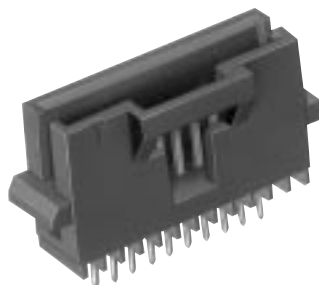
Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated
.000030 [0.00076] gold in mating area,
.000150 [0.00381] tin-lead on solder
posts, with entire contact underplated
.00050 [0.00127] nickel.

Printed Circuit Board Connectors (Continued)

No of Pos.	Receptacle Part Numbers
12	1-104071-1



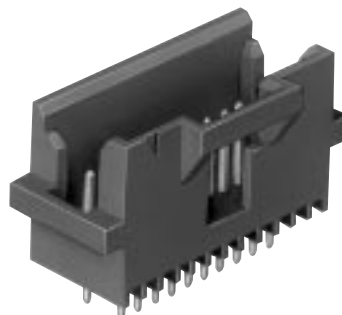
Double Row, Vertical

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated
.000030 [0.00076] gold in mating area,
.000150 [0.00381] tin-lead on solder
posts, with entire contact underplated
.00050 [0.00127] nickel.

No of Pos.	Receptacle Part Numbers
50	104666-4



Double Row, Vertical With Card Slots

Material and Finish:

Housing—Black thermoplastic,
94V-0 rated

Contacts—Copper alloy, plated
.000030 [0.00076] gold in mating area,
.000150 [0.00381] tin-lead on solder
posts, with entire contact underplated
.00050 [0.00127] nickel.

No of Pos.	Receptacle Part Numbers
100	104076-8



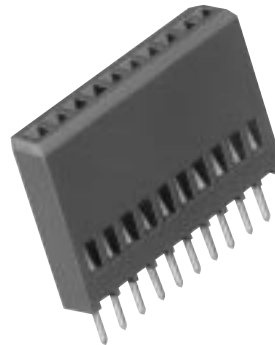
Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 82178

**AMPMODU System 50
Connectors (.050 x .100
[1.27 x 2.54] Centers),
Board-to-Board****Thru-Hole Receptacles, .050
[1.27] Centers****Single Row, Vertical****Material and Finish:****Housing**—Black thermoplastic,
94V-0 rated**Contacts**—Copper alloy, plated
.000030 [0.00076] gold in mating ara,
.000150 [0.00381] tin-lead on solder
posts, with entire contact underplated
.00050 [0.00127] nickel.**Printed Circuit Board Connectors (Continued)**

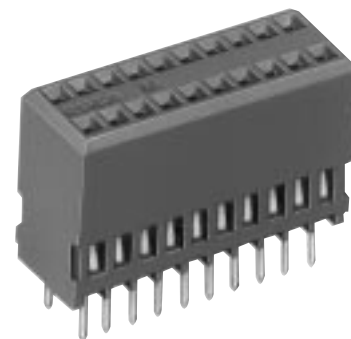
No of Pos.	Part Numbers
10	104192-2

**Double Row, Right-Angle****Material and Finish:****Housing**—Black thermoplastic,
94V-0 rated**Contacts**—Copper alloy, plated
.000030 [0.00076] gold in mating ara,
.000150 [0.00381] tin-lead on solder
posts, with entire contact underplated
.00050 [0.00127] nickel.

No of Pos.	Part Numbers
10	103911-1
20	103911-2
30	103911-7
50	103911-4
100	103911-8

**Double Row, Vertical****Material and Finish:****Housing**—Black thermoplastic,
94V-0 rated**Contacts**—Copper alloy, plated
.000030 [0.00076] gold in mating ara,
.000150 [0.00381] tin-lead on solder
posts, with entire contact underplated
.00050 [0.00127] nickel.

No of Pos.	Part Numbers	
	Post Length	
	.100 [2.54]	.145 [3.68]
20	104078-1	—
24	104078-9	—
30	104078-9	104744-2
40	104078-2	—
60	104078-6	—
80	104078-9	104744-4
100	104078-8	—

**Note:****BLUE** part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.**For Complete Product Information, Order Catalog 889092**

AMPMODU System 50 Connectors (.050 x .100 [1.27 x 2.54] Centers), Board-to-Board

Vertical Headers

Material and Finish:

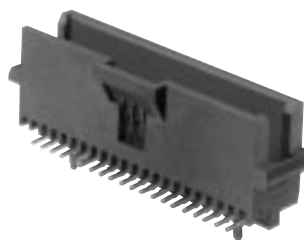
Housing—Glass-filled, black thermoplastic, 94V-0 rated

Contacts—Phosphor bronze, plated 0.00076 [.000030] gold in mating area, 0.00381 [.000150] tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] nickel

Holddown—Copper alloy, plated 0.00381 [.000150] tin-lead over 0.00127 [.000050] nickel

Printed Circuit Board Connectors (Continued)

No. of Positions	Header Part Numbers
20	104549-2
24	104549-3
30	104549-5
40	104549-6
50	104549-7
60	104549-8
80	104549-9
100	1-104549-0



Vertical Receptacles

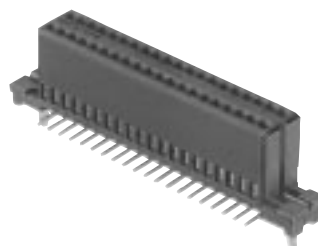
Material and Finish:

Housing—Glass-filled, black thermoplastic, 94V-0 rated

Contacts—Phosphor bronze, plated 0.00076 [.000030] gold in mating area, 0.00381 [.000150] tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] nickel

Holddown—Copper alloy, plated 0.00381 [.000150] tin-lead over 0.00127 [.000050] nickel

No. of Positions	Receptacle Part Numbers
50	104550-6
60	104550-7
80	104550-8



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889092

AMPMODU .031 x .062 Interconnection System

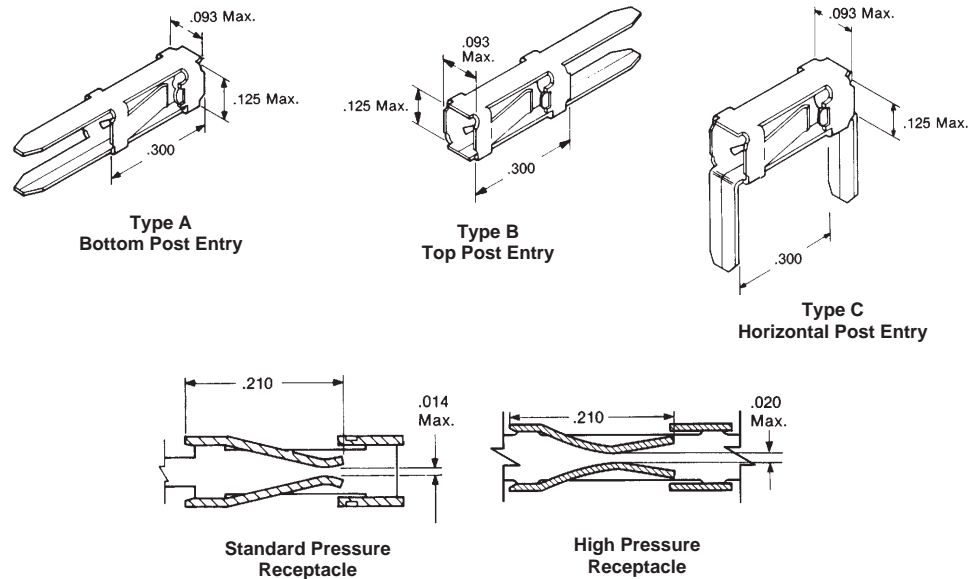
Receptacles, Board Mount

Vertical and Horizontal Board Mount

Material:

Copper alloy

Printed Circuit Board Connectors (Continued)



Type	Board Thickness	Finish	Standard Pressure Part Numbers		High Pressure Part Numbers	
			Strip Form	Loose Piece	Strip Form	Loose Piece
A	.070-.055 1.78-1.40	Tin ¹	86477-3	—	87316-3	—
		Gold ²	86477-2	86480-2	—	—
		Solder Resist ³	87772-2	—	—	—
B	.070-.055 1.78-1.40	Tin ¹	87003-2	—	—	—
		Gold ²	—	87105-1	—	—
C	.103-.055 2.62-1.40	Tin ¹	—	—	—	86434-1
		Gold ²	—	85493-4	—	—

¹.000030 [0.00076] minimum tin on entire receptacle.

².000030 [0.00076] gold on contact area, gold flash over .000050 [0.00127] nickel on entire receptacle.

³.000030 [0.00076] gold over .000050 nickel on contact area, .00500 [0.127] aluminum on inside are of solder tines, remainder of receptacle unfinished.

Receptacle Assemblies, Vertical Board Mount

Single Row .156 [3.96] Centers

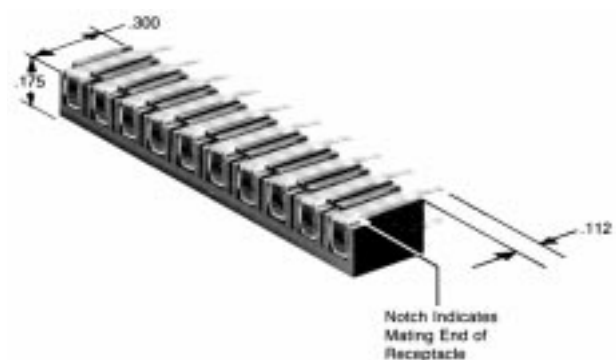
Material:

Housing—Black thermoplastic,
94V-0 rated

Receptacles—Copper Alloy

No. of Pos.	Type B
	Standard Pressure Gold Plated ¹
6	87986-6

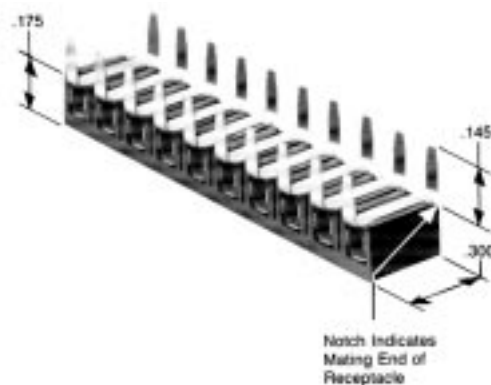
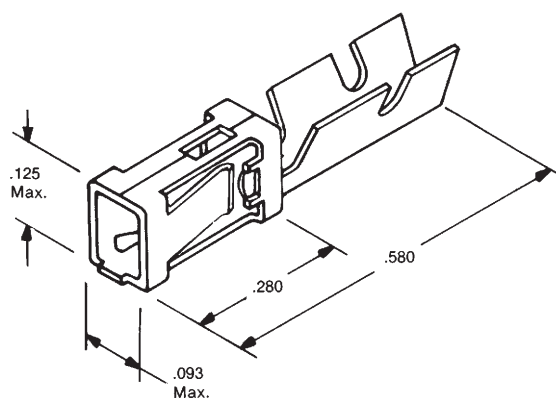
¹.000030 [0.00076] gold on contact area, gold flash over .000050 [0.00127] nickel on entire receptacle.



For Complete Product Information, Order Catalog 82060

**AMPMODU .031 x .062
Interconnection System****Receptacle Assemblies,
Horizontal Board Mount****Single Row .156 [3.96]
Centers****Material:****Housing**—Black thermoplastic,
94V-0 rated**Receptacles**—Copper Alloy**Printed Circuit Board Connectors (Continued)**

No. of Pos.	Tin Plated Receptacles ¹		Gold Plated Receptacles ²
	Standard Pressure	High Pressure	Standard Pressure
4	—	87995-4	87988-4
8	87987-8	—	—

¹.000030 [0.00076] minimum tin on entire receptacle.².000030 [0.00076] gold on contact area, gold flash
over .000050 [0.00127] nickel on entire receptacle.**Receptacles, Crimp Snap-In
(Wire Applied)****Material:** Copper Alloy

Wire Size Range AWG	Ins. Dia. Range	Finish	Standard Pressure		High Pressure	
			Strip Form	Loose Piece	Strip Form	Loose Piece
			Part Numbers	Part Numbers	Part Numbers	Part Numbers
22-18	.051-.090	Tin ¹	102099-5	—	102100-5	102104-3
	1.30-2.29	Gold ²	—	—	102100-2	102104-2
26-22	.042-.073	Gold ²	—	—	—	102104-2
	1.07-1.85					

¹.000030 [0.00076] minimum tin on entire receptacle.².000030 [0.00076] gold on contact area, gold flash over .000050 [0.00127] nickel on entire receptacle.**For Complete Product Information, Order Catalog 82060**

AMPMODU .031 x .062 Interconnection System

Receptacle Housings, Low Profile (Keyed)

Single Row, .156 [3.96]
Centers

Material: Black Thermoplastic,
94V-0 Rated

Printed Circuit Board Connectors (Continued)

No. of Pos.	No. of Keys	Unstamped ¹ Part Numbers
2	1	87159-3
3	1	87159-4
4	2	87159-5
5	2	87159-1
6	3	87159-6
8	4	87159-8

¹No marking on housing.



Receptacle Housings, Standard Profile (Unkeyed)

Without Strain Relief,
Single Row, .156 [3.96]
Centers

Material: Black Thermoplastic,
94V-0 Rated

No. of Pos.	Unstamped ¹ Part Numbers
3	2-87025-1
4	1-87025-3
14	3-87025-8

¹No marking on housing.



Posts, Machine Applied

(Mates with receptacles on pages 111,
112 and above)

Material: Brass

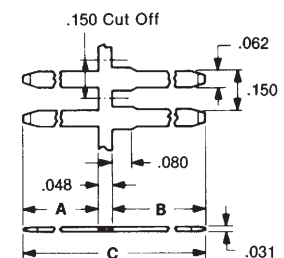
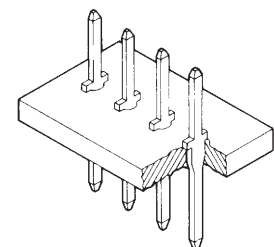
Dimensions			Tin Plated ¹ Part Numbers	Gold Plated ² Part Numbers
A	B	C	Strip Form ³	Loose Piece ⁴
.360 9.14	.187 4.75	.595 15.11	—	86182-7
.400 10.16	.125 3.17	.573 14.55	3-86147-7	—
.800 20.32	.150 3.81	.998 25.35	1-86147-0	1-86182-2

¹.000100-.000200 [0.00254-0.00508] bright tin over .000050 [0.00127] nickel on entire post.

².000030 [0.00076] gold over .000050 [0.00127] nickel on entire post.

³Packaging quantity of 20,000 per reel.

⁴Packaging quantity of 1,000 per bag.



For Complete Product Information, Order Catalog 82060

AMPMODU .031 x .062 Interconnection System

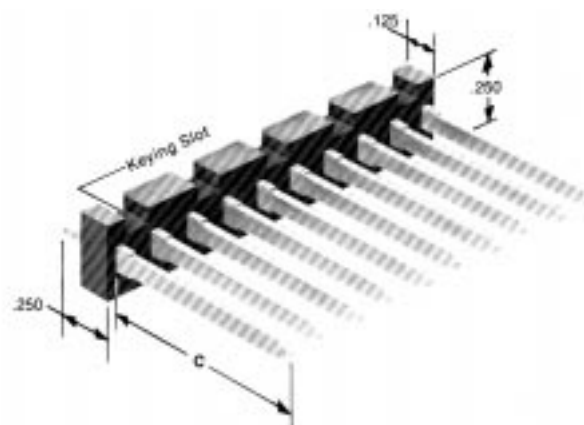
Headers, Straight Post (Keyed)

Single Row, .156 Centers

Material:

Housing—Black Thermoplastic, 94V-0
Rated

Posts—Brass



No. of Pos.	No. of Keying Slots	Post Height C = .405		Post Height C = .587	Post Height C = .750	Post Height C = 1.310
		Bright Tin Plated Posts ¹	Gold Plated Posts ²	Gold Plated Posts ³	Bright Tin Plated Posts ¹	Gold Plated Posts ²
2	1	—	85829-2	—	—	—
3	1	87160-5	—	—	—	85839-3
4	2	87160-6	85829-4	87247-4	—	—
6	3	—	85829-6	—	—	—
8	4	87160-9	—	—	—	—
9	3	—	—	—	85875-3	—
10	5	—	1-85829-0	—	—	—
12	6	1-87160-3	—	—	—	—

¹.000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel on entire post.

².000030 [0.00076] gold on contact area, gold flash over .000050 [0.00127] nickel on entire post.

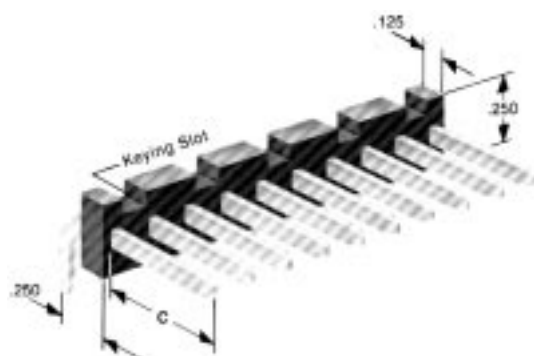
Headers, Right Angle Post (Keyed)

Single Row, .156 Centers

Material:

Housing—Black Thermoplastic, 94V-0
Rated

Posts—Brass



No. of Pos.	No. of Keying Slots	Post Height C = .500	
		Bright Tin Plated Posts ¹	Gold Plated Posts ²
4	2	—	87258-4
5	2	87194-4	—

¹.000100-.000200 [0.00254-0.00508] bright tin over .000030 [0.00076] nickel on entire post.

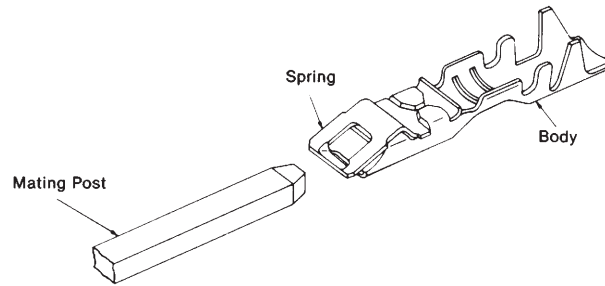
².000015 [0.00038] gold over .000050 [0.00127] nickel on entire post.

For Complete Product Information, Order Catalog 82060

**AMPMODU .031 x .062
Interconnection System****Locking Clip Contacts,
Crimp Snap-In (Wire Applied)****Material:**

Contact Body—Phosphor Bronze

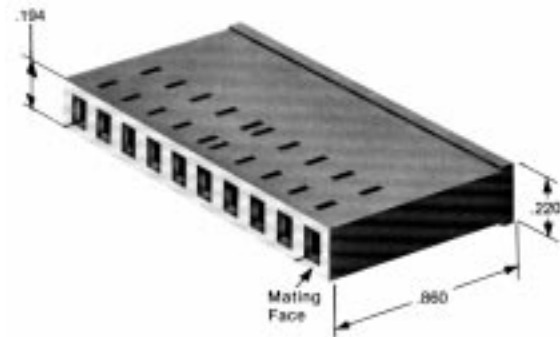
Contact Spring—Stainless Steel

Printed Circuit Board Connectors (Continued)

Wire Size Range AWG	Ins. Dia. Range	Finish	Part Numbers	
			Strip Form	Loose Piece
22-18	.050-.100 1.27-2.54	Tin Plated ¹	87269-1	87278-1
		Gold Plated ²	—	87278-2

¹.000100 [0.00254] minimum bright tin over nickel on entire contact.².000015 [0.00038] gold on post mating area, gold flash over nickel on entire contact.**Locking Clip Connector
Housings (Unkeyed)****Single Row, .156 [3.96]
Centers****Material:** Black Thermoplastic,
94V-0 Rated

No of. Pos.	Part Numbers
1	87270-1
2	87270-2
3	1-87270-3
4	87270-4
5	1-87270-4

**For Complete Product Information, Order Catalog 82060**

**AMPMODU 2mm Connectors
(Board to Board)**

**Horizontal Headers with
Holddowns, Unshrouded,
Double Row, Surface-Mount**

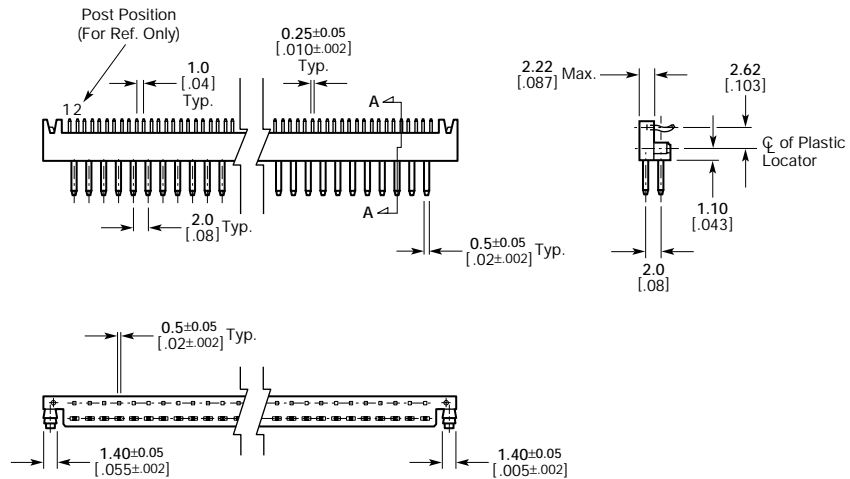
**1.00 [.039] Mating Pin-to-PC
Board Dimension**

Two metallic spring hold-
downs on each end of
surface-mount right-angle
header work with plastic
location features for PC
board retention prior to
solder flow

Material and Finish:

Housing—Black polyphenylene
sulfide, 94V-0 rated

Posted Contacts—Copper
alloy, duplex plated gold flash
over 0.00076 [.000030] min.
palladium-nickel on
contact area, 0.00508
[.000200] min. tin-lead on
solder area, with entire
contact underplated 0.00130
[.000051] min. nickel

Printed Circuit Board Connectors (Continued)

No. of Positions	Header Part Numbers	Posts Omitted
50	84108-1	24, 41, 42

**Horizontal Headers with
Holddowns, Unshrouded,
Double Row, Surface-Mount**

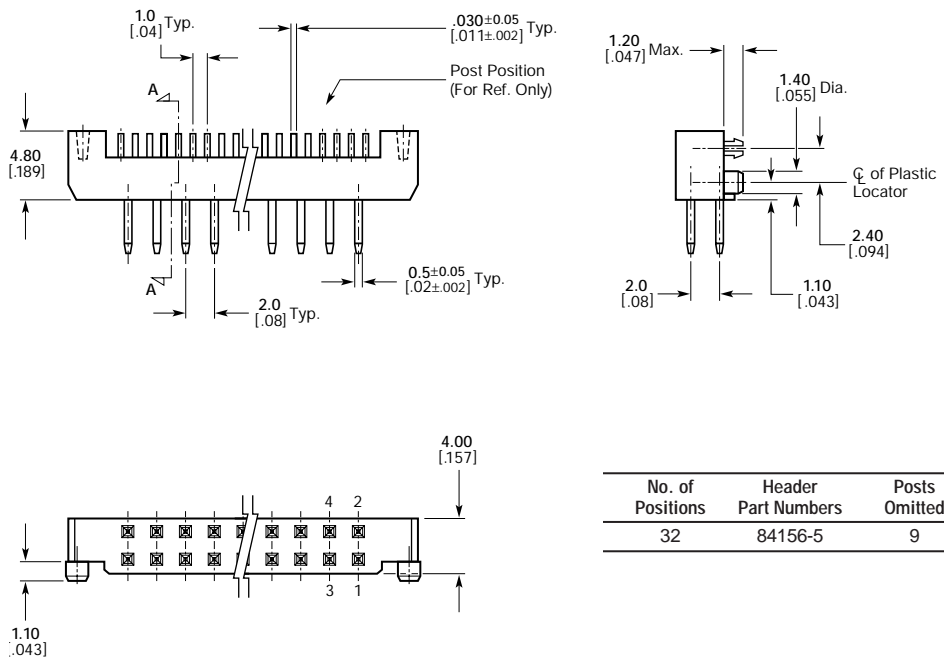
**0.32 [.013] Mating Pin-to-PC
Board Dimension**

Two metallic spring hold-
downs on each end of
surface-mount right-angle
header work with plastic
location features for PC
board retention prior to
solder flow

Material and Finish:

Housing—Black polyphenylene
sulfide, 94V-0 rated

Posted Contacts—Copper alloy,
duplex plated 0.00076 [.000030] min.
gold on contact area, 0.00508 [.00200]
min. tin-lead on solder area, with entire
contact underplated 0.00130 [.000050]
min. nickel

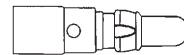
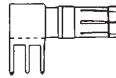
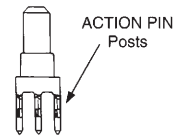
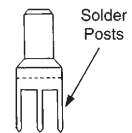


No. of Positions	Header Part Numbers	Posts Omitted
32	84156-5	9

For Complete Product Information, Order Catalog 82060

Two Piece, High Density
Printed Circuit Board
Connectors

Printed Circuit Board Connectors (Continued)

Power and Coaxial Contacts
(Size 8) for Three- and
Four-Row AMP-HDI Hybrid
ConnectorsCable-to-Cable
Power ApplicationsContacts for
Receptacles AssembliesStraight Socket Contact
Part Number 211161-1Contacts for
Pin AssembliesStraight Pin Contact
Part Number 211159-1Cable-to-Board
Coaxial ApplicationsVertical Pin Contact
Part Number 414509-1¹Board-to-Board
Power ApplicationsRight-Angle Socket Contact
Part Number 532823-1 (Gold Solder Tail)
Part Number 532823-2 (Tin-Lead Solder Tail)Vertical Pin Contact
Part Number 534135-1¹Vertical Pin Contact
Part Number 532824-1

¹These contacts are used in square power ports only; all other contacts are used in round power ports. Extraction Tool No. 58095-2 is used to remove coaxial and power contacts from AMP-HDI Hybrid connector housings.

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

AMP-HDI Four Row Assemblies Without Guide Holes

Vertical Posts

Materials and Finish:

Housing—Brown glass-filled polyphenylene sulfide

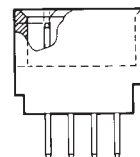
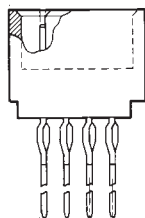
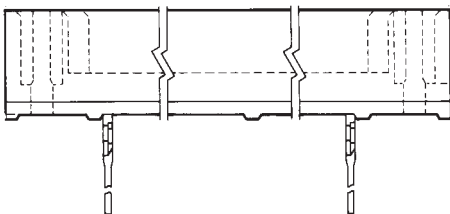
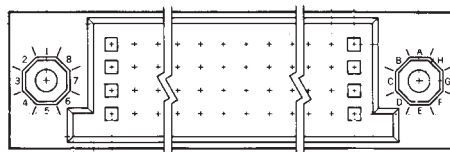
Contacts—Phosphor bronze, plated as follows:

A .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-

.000100 [0.00127-0.00254] nickel

B Gold flash over .000050-.000100 [0.00127-0.00254] nickel on entire contact, with .000030 [0.00076] gold in contact area and for .200 [5.08] from tip of wrap-type post

Printed Circuit Board Connectors (Continued)



No. of Pos.	Post Length	Contact Finish	Part Number	
			ACTION PIN Posts	Solder Posts
100	.533 13.54	B	533270-1	—
	.250 6.35	A	532448-1	—
128	.190 4.83	A	—	532436-1
	.250 6.35	A	532448-3	—
	.190 4.83	A	—	532436-3
140	.250 6.35	A	532448-4	—
160	.250 6.35	A	532448-5	—
180	.250 6.35	A	532448-6	—
200	.190 4.83	A	—	532436-7
220	.250 6.35	A	532448-8	—
240	.250 6.35	A	532448-9	—
	.190 4.83	A	—	532436-9
280	.250 6.35	A	1-532448-1	—
300	.533 13.54	B	1-532270-2	—
	.250 6.35	A	1-532448-2	—
	.190 4.83	A	—	1-532436-2

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

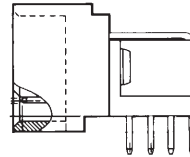
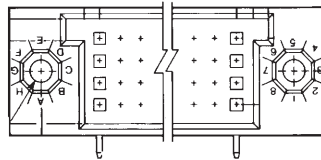
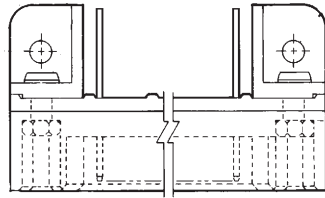
AMP-HDI Four-Row Pin Assemblies Without Guide Holes (Continued)

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Phosphor bronze, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact under-plated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number L' = .120 [3.05]
128	533286-3
160	533286-5
200	533286-7
240	533286-9

¹Represents post length.

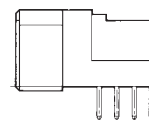
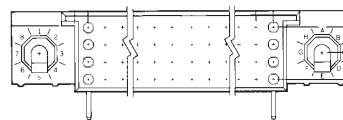
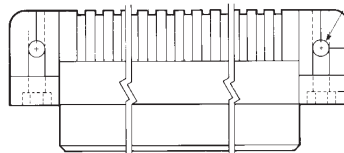
AMP-HDI Four-Row Receptacle Assemblies Without Guide Holes

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact under-plated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L' = .180 [4.57]	L' = .120 [3.05]
100	532434-1	532903-2
120	—	1-532903-2
128	—	532903-3
140	532434-4	532903-4
160	—	532903-5
180	—	532903-6
200	532434-7	532903-7
240	—	532903-9
300	—	532903-1

¹Represents post length.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

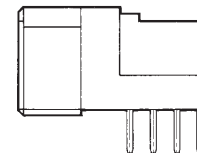
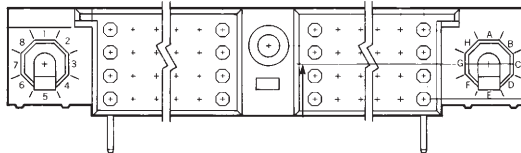
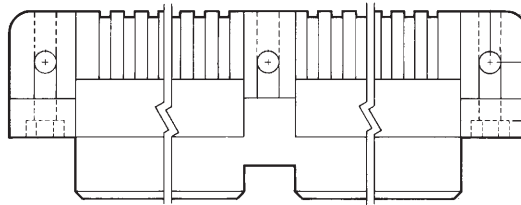
AMP-HDI Four-Row Receptacle Assemblies With One Guide Hole

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L ¹ = .180 [4.57]	L ¹ = .120 [3.05]
416	—	533443-5

¹Represents post length.

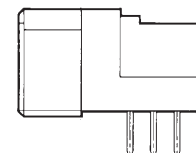
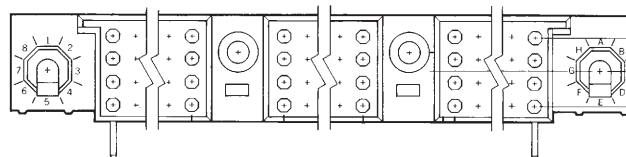
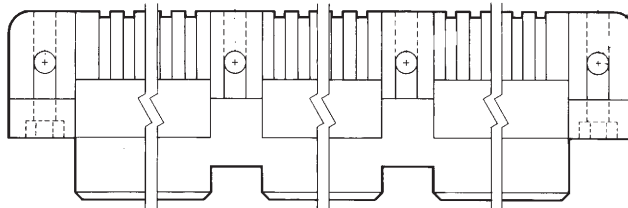
AMP-HDI Four-Row Receptacle Assemblies With Two Guide Holes

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L ¹ = .180 [4.57]	L ¹ = .120 [3.05]
540	532840-2	533449-2

¹Represents post length.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

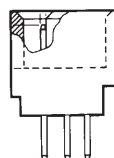
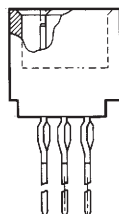
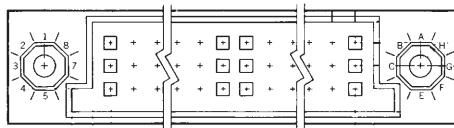
Two Piece, High Density Printed Circuit Board Connectors

AMP-HDI Three-Row Pin Assemblies Without Guide Holes

Vertical Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide
Contacts—Phosphor bronze, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



ACTION PIN Posts

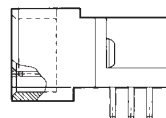
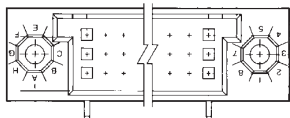
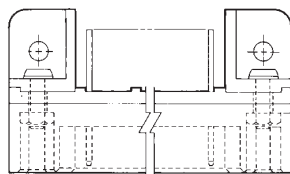
Solder Posts

No. of Pos.	Post Length	Part Number	
		ACTION PIN Posts	Solder Posts
90	.190 4.83	—	532433-2
96	.190 6.35	—	532433-3
120	.250 6.35	532447-5	—
165	.190 6.35	—	532433-8
180	.533 6.35	533061-9	—
210	.250 4.83	1-532447-1	—

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide
Contacts—Phosphor bronze, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L ¹ = .180 [4.57]	L ¹ = .120 [3.05]
180	533420-9	—

¹Represents post length.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

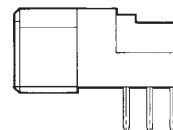
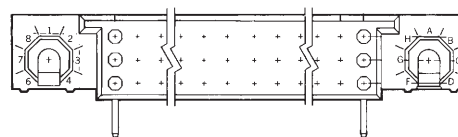
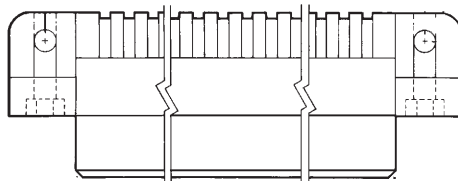
AMP-HDI Three-Row Receptacle Assemblies Without Guide Holes

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide
Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel

Printed Circuit Board Connectors (Continued)



No. of Pos.	Part Number	
	L ¹ = .180 [4.57]	L ¹ = .120 [3.05]
75	532431-1	533268-1
90	—	533268-2
96	532431-3	533268-3
120	532431-5	533268-5
135	—	533268-6
165	532431-8	—
180	532431-9	533268-9
210	1-532431-1	1-533268-1
225	—	1-533268-2

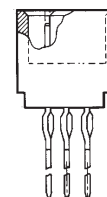
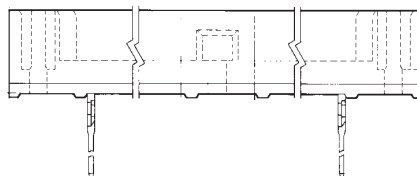
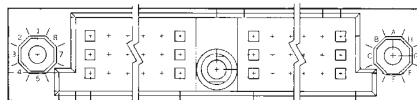
¹Represents post length.

AMP-HDI Three-Row Pin Assemblies With One Guide Hole

Vertical Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide
Contacts—Phosphor bronze, plated as follows:
A .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



ACTION PIN Posts

No. of Pos.	Post Length	Contact Finish	Part Number ACTION PIN Posts
100	.250	A	533294-1

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

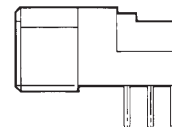
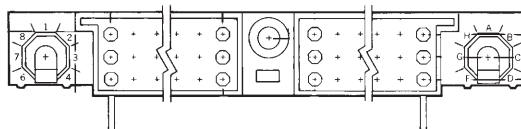
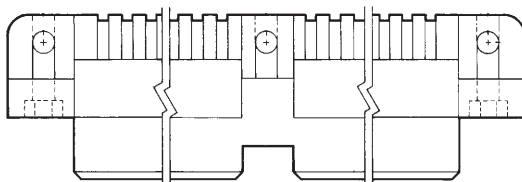
AMP-HDI Three-Row Receptacle Assemblies With One Guide Hole

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L' = .180 [4.57]	L' = .120 [3.05]
240	—	533514-1
276	—	533514-3
312	—	533514-5
366	532918-8	—

¹Represents post length.

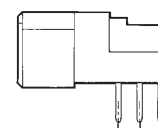
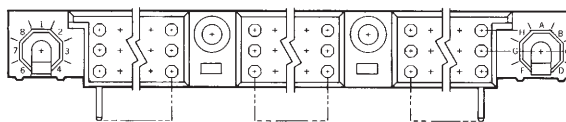
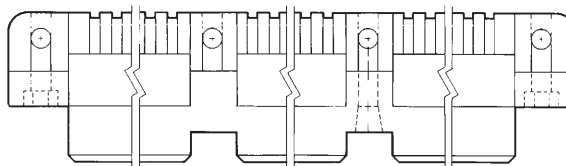
AMP-HDI Three-Row Receptacle Assemblies With Two Guide Holes

Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L' = .180 [4.57]	L' = .120 [3.05]
405	—	533425-2

¹Represents post length.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

AMP-HDI Two-Row Assemblies Without Guide Holes

Vertical Posts

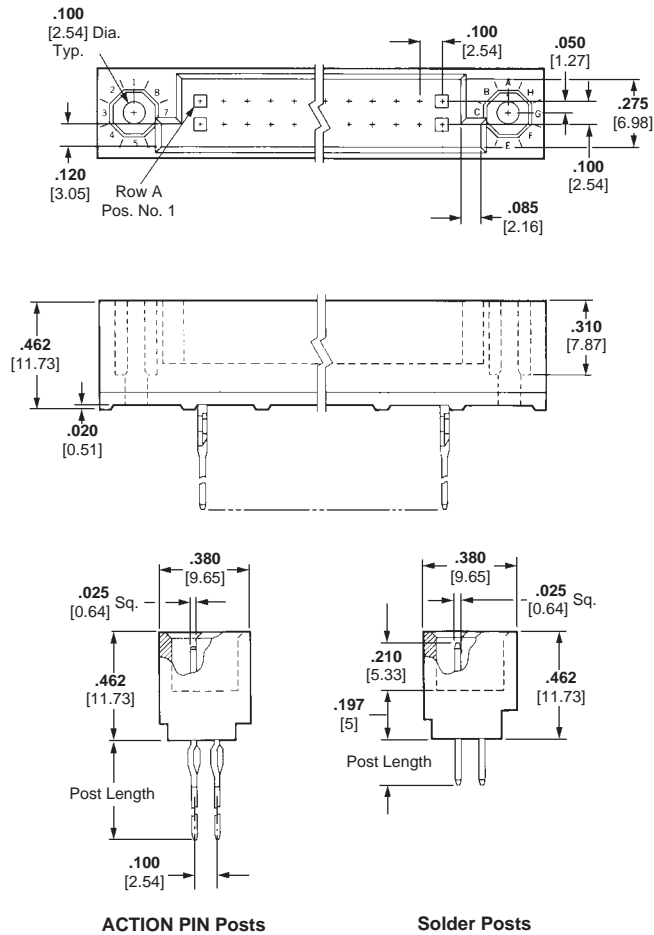
Material and Finish:

Housing—Brown glass-filled
polyphenylene sulfide

Contacts—Phosphor bronze, plated
as follows:

A. .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100[0.00127-0.00254] nickel

Printed Circuit Board Connectors (Continued)



ACTION PIN Posts

Solder Posts

No. of Pos.	Post Length	Contact Finish	Part Number	
			ACTION PIN Posts	Solder Posts
40	.190 4.83	A	—	532430-3
50	.250 6.35	A	532446-4	—
60	.190 4.83	A	—	532430-5
80	.190 4.83	A	—	532430-7
100	.190 4.83	A	—	532430-9
120	.250 6.35	A	1-532446-1	—

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

AMP-HDI Two-Row Receptacle Assemblies Without Guide Holes

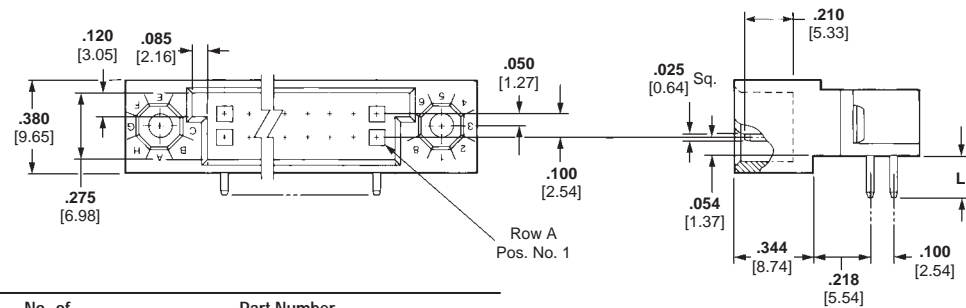
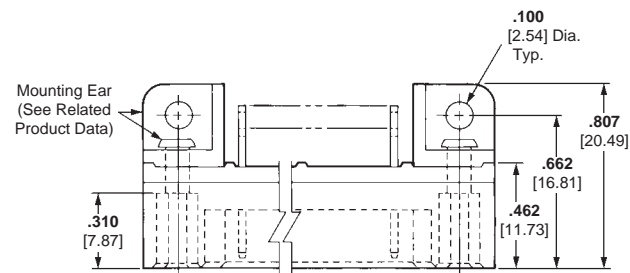
Right-Angle Solder Posts

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Beryllium copper, plated .000030 [0.00076] gold in contact area; tin on posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel

Printed Circuit Board Connectors (Continued)



No. of Pos.	Part Number	
	L ¹ = .180 [4.57]	L ¹ = .120 [3.05]
40	532428-3	—
50	—	532825-4
60	532428-5	—
80	—	532825-4
100	532428-9	—
150	—	1-532825-4

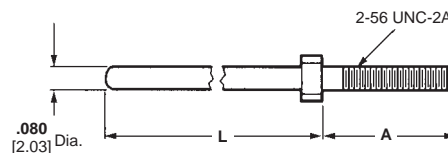
¹Represents post length.

AMP-HDI Power Hardware and Applications (for Three and Four -Row Connectors Only)

Static Discharge Guide/Power Pins (for use in Center Guide Holes)

Current Rating — 10 Amperes max.

Materials and Finish — Brass, plated .000030 [0.00076] gold over .000050-.000100 [0.00127-0.00254] nickel



Dimensions				Part Numbers
A		L		
Inch	mm	Inch	mm	
.475	12.07	1.150	29.21	532828-2
.475	12.07	1.025	26.04	532828-8
.475	12.07	1.195	30.35	1-532828-1

Guidance Hardware and Applications

Guide Pin Kits (for use in Center Guide Holes)

Materials and Finish:

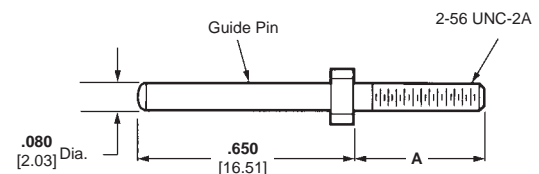
Washer- Passivated stainless steel

Pin- Passivated stainless steel

Nut- Passivated stainless steel

See AMP Instruction Sheet 408-6909

Dimension A	Guide Pin Part Number	Guide Pin Kit Number
.475	532807-1	532808-1
12.06	—	532808-2
.562	—	532808-2
14.27	—	532808-2



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

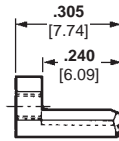
For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

AMP-HDI Keying Hardware and Applications

Keys for Pin Assemblies

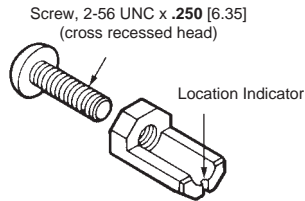
Materials and Finish:
Passivated stainless steel
Key Part No. 530341-6
(contains 2 per package)



Note: Customer must supply screws; .250 [6.35] min. long, plus thickness of panel.

Key Kits for Three and Four-Row Receptacles

Materials and Finish:
Key- Passivated stainless steel
Screw- Passivated stainless steel



Kit No. 530341-7
(includes 2 keys and 2 screws)

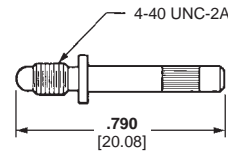
AMP-HDI Mating Hardware and Applications

Jackscrews for Three and Four-Row Connectors Only

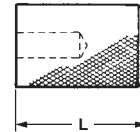
See AMP Instruction Set 408-6909

Dimension	Turnable Male Part Numbers
L	
.500	532805-3 ¹
12.70	

¹Knob with screwdriver slot



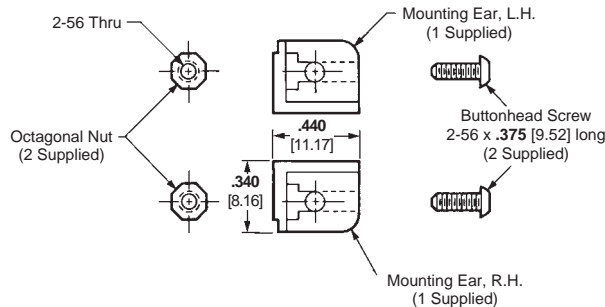
Turnable Male
(See Chart Below)



Knob

AMP-HDI Mounting Hardware and Applications

For Three and Four Row Right-Angle Pin Assemblies



Kit No. 533050-1

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

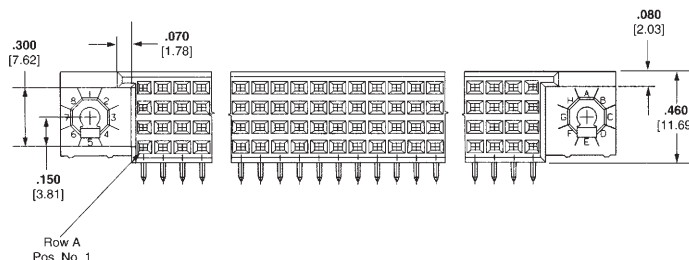
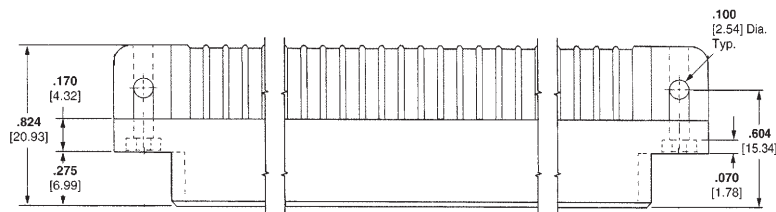
Twin Beam Contact Four-Row Receptacle Assemblies Without Guide Holes

Right-Angle Solder Posts .120[3.05] and .180[4.75] Post Lengths

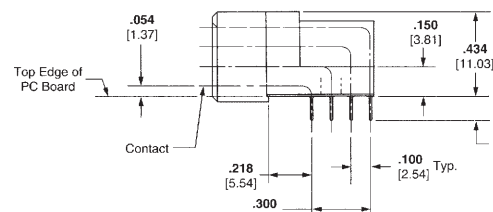
Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Cooper alloy, plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L = .120 [3.05]	L = .180 [4.75]
100	534008-1	—
120	534008-7	—
128	534008-8	—
140	534008-9	—
160	1-534008-0	—
200	1-534008-1	—
260	1-534008-4	—
300	1-534008-2	—



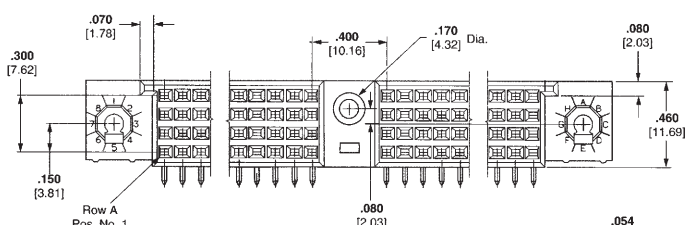
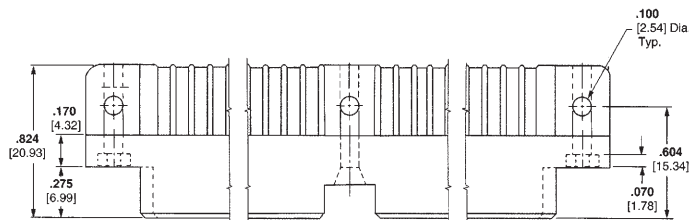
Twin Beam Contact Four-Row Receptacle Assemblies With one Guide Hole

Right-Angle Solder Posts .120[3.05] and .180[4.75] Post Lengths

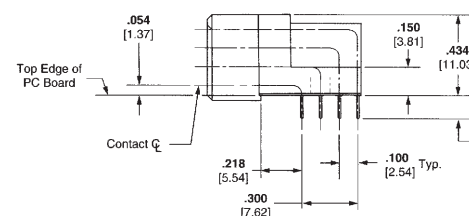
Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Cooper alloy, plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number	
	L = .120 [3.05]	L = .180 [4.75]
344	534010-2	—



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

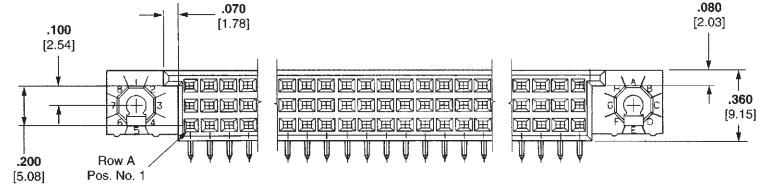
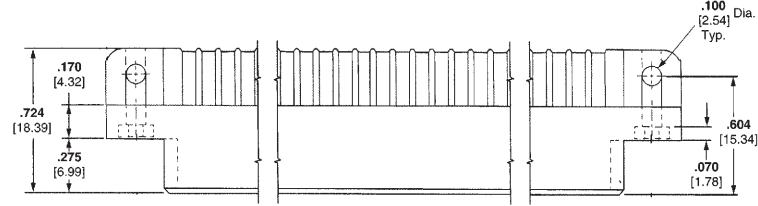
Two Piece, High Density Printed Circuit Board Connectors

Twin Beam Contact Three-Row Receptacle Assemblies Without Guide Hole s

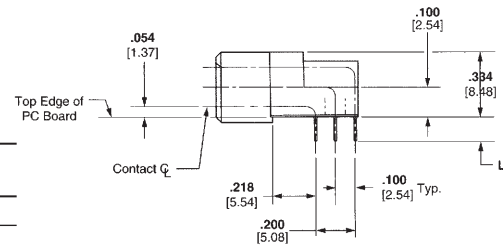
Right-Angle Solder Posts
.120[3.05] and .180[4.75]
Post Lengths

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide
Contacts—Cooper alloy, plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated .000050-.000100 [.00127-0.00254] nickel



No. of Pos.	Part Number	
	L = .120 [3.05]	L = .180 [4.75]
96	534026-2	—
120	534026-3	—

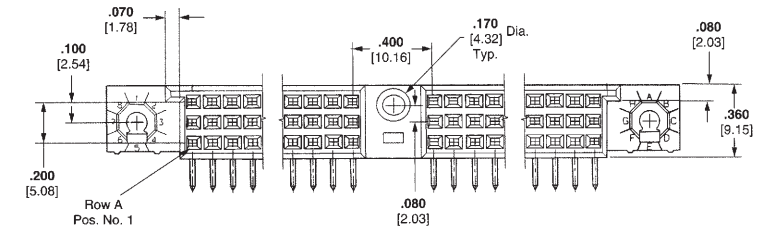
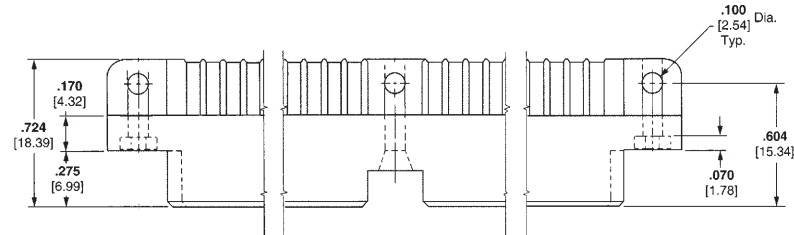


Twin Beam Contact Three-Row Receptacle Assemblies With one Guide Hole

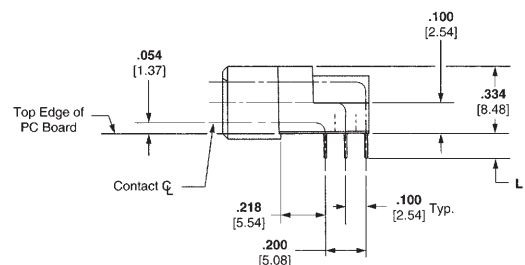
Right-Angle Solder Posts
.120[3.05] and .180[4.57]
Post Lengths

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide
Contacts—Cooper alloy, plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated .000050-.000100 [.00127-0.00254] nickel



No. of Pos.	Part Number	
	L = .120 [3.05]	L = .180 [4.75]
240	534027-1	—
366	534027-8	—



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

Two Piece, High Density Printed Circuit Board Connectors

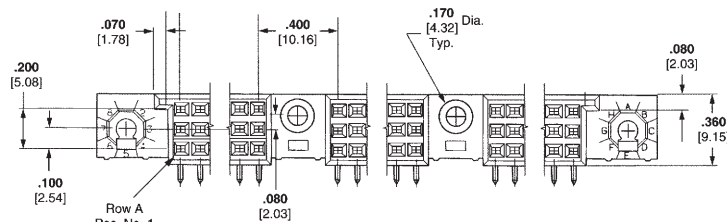
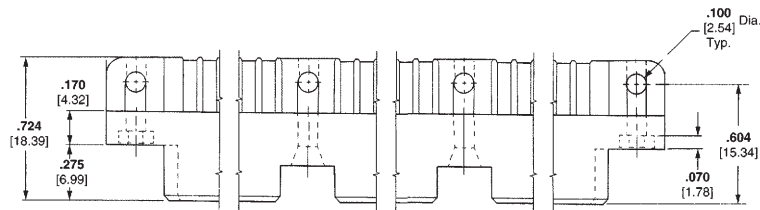
Twin Beam Contact Three-Row Receptacle Assemblies With Two Guide Holes

Right-Angle Solder Posts .120[3.05] and .180[4.57] Post Lengths

Material and Finish:

Housing—Brown glass-filled polyphenylene sulfide

Contacts—Cooper alloy, plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated .000050-.000100 [0.00127-0.00254] nickel



No. of Pos.	Part Number L = .120 [3.05]
423	534042-2

Twin Beam Contact Vertical Pin Header Modules

Material and Finish:

Housing—Black glass-filled polyester, 94V-0 rated

Receptacle Contacts—Beryllium copper, duplex plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated .000050 [0.00127] min. nickel

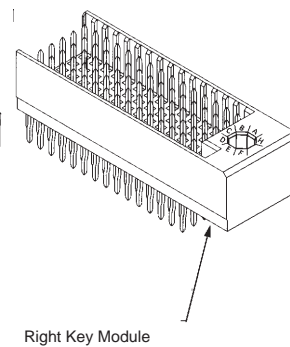
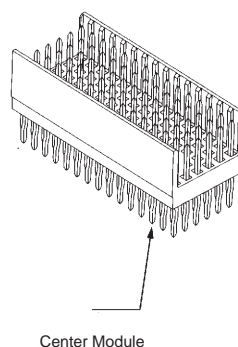
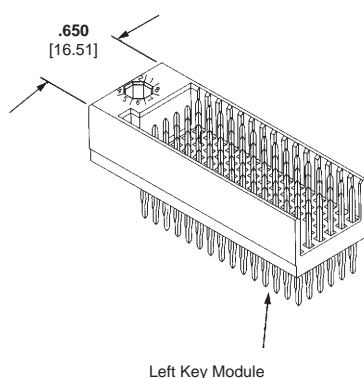
Pin - Phosphor bronze, duplex plated .000030 [0.00076] gold in mating area, tin-lead on solder posts, with entire contact underplated .000050 [0.00127] min. nickel

Stiffener-Aluminum

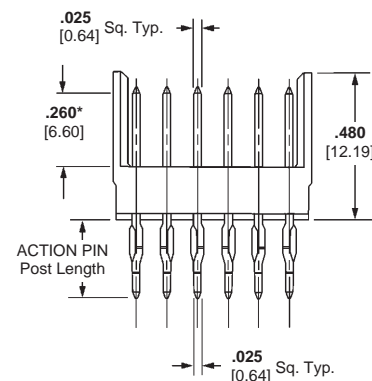
Power Guide Pin- Brass, plated .000030 [0.00076] gold over .000050 [0.00127] min. nickel

Power Guide Receptacle Assembly-Phosphor bronze contact, plated .000030 [0.00076] gold in contact area and gold flash on remainder, with entire contact underplated .000050 [0.00127] min. nickel

Center Guide Pin, Guide Pin, Inserts, Key Pin, Washers, and Nuts- Stainless steel



Module Type	No. of Pos.	Modules Required	
		.250 [6.35] Post Length	.555 [14.10] Post Length
Left Key	90	535843-1	—
	120	535843-2	—
Center	120	—	535841-6
	90	535845-1	—
Right Key	120	535845-2	535845-6



Note: BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

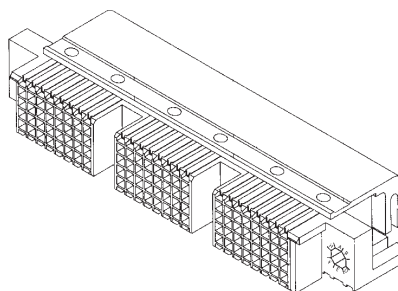
Two Piece, High Density Printed Circuit Board Connectors

Twin Beam Contact Vertical Pin Header Modules

Material and Finish: See page
129

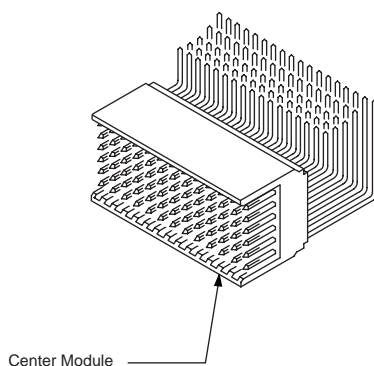
Printed Circuit Board Connectors (Continued)

No. of Guides	No. of Pos.	Part Number
0	180	535919-1
	210	535919-2
	240	535919-3
	360	535919-7
	540	1-535919-1
	600	1-535919-2
2	810	650363-2

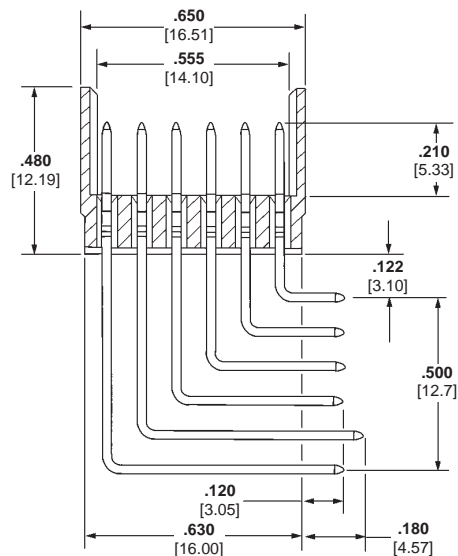


Twin Beam Contact Right-Angle Pin Header Card Extender Modules

Material and Finish: See page
129



Module Type	No. of Pos.	Module Part Number
Center	120	650365-2



Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 82618

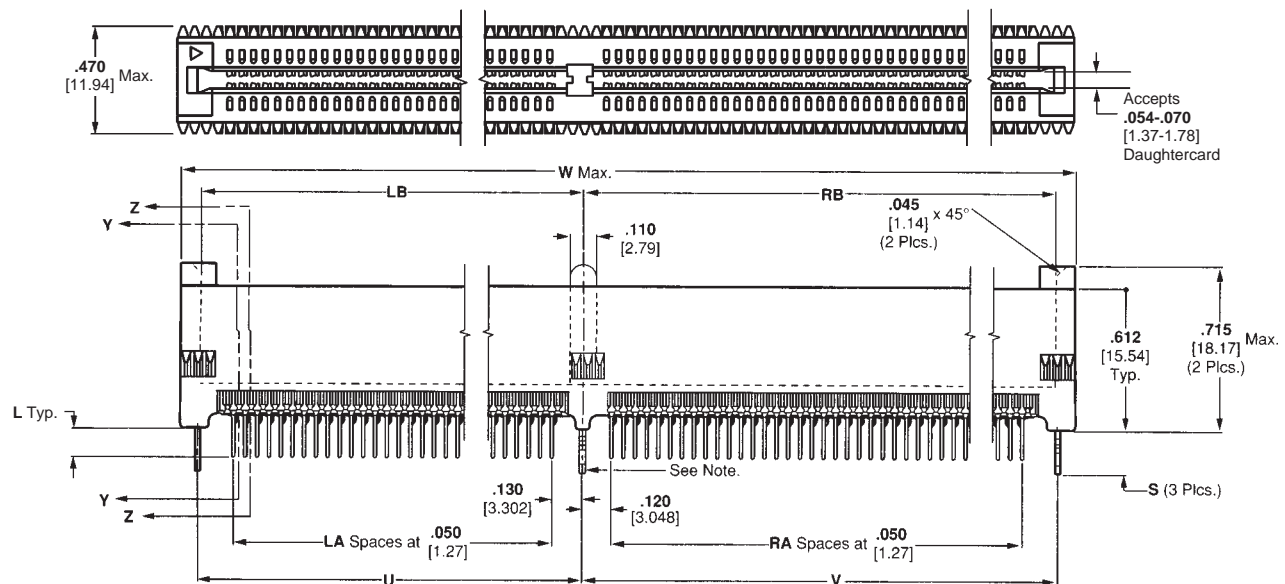
Card Edge Connectors
(Board to Board)High-Speed Standard Edge
Connectors, 30 to 130 Dual
Positions

Material and Finish:

Housing—Polyphenylene sulfide,
brown

Contacts—Phosphor bronze, duplex
plated 0.00076 [.000030] min. gold in
contact area, 0.00254 [.000100] min.
tin-lead on solder leads, with entire con-
tact underplated 0.00127 [.000050] min.
nickel

Printed Circuit Board Connectors (Continued)



No. of Dual Positions	No. of Board Retainers	Dimensions											Part Numbers
		LA	LB	LC	RA	RB	RC	U	V	W	S	L	
60	3	25	1.520 38.61	1.563 39.70	33	1.910 48.51	1.953 49.61	1.530 38.86	1.920 46.23	3.616 91.85	.185 4.70	.100 [2.54]	145090-5
73	3	31	1.820 46.23	1.863 47.32	40	2.260 57.40	2.303 58.50	1.830 46.48	2.270 57.66	4.266 108.36	.185 4.70	.100 [2.54] .125 [3.18]	3-145090-7 3-145090-8
90	3	39	2.220 56.39	2.263 57.48	49	2.710 68.83	2.753 69.93	2.230 56.64	2.720 69.09	5.116 129.95	.185 4.70	.100 [2.54] .125 [3.18]	1-145090-7 1-145090-8
100	3	43	2.420 61.47	2.463 62.56	55	3.010 76.45	3.053 77.55	2.430 61.72	3.020 76.71	5.616 142.65	.185 4.70	.100 [2.54]	2-145090-1
110	3	47	2.620 66.55	2.663 67.64	61	3.310 84.07	3.353 85.17	2.630 66.80	3.320 84.33	6.116 155.35	.185 4.70	.100 [2.54]	2-145090-5
											.125 [3.18]	.155 [3.94]	2-145090-6 2-145090-7
											.250 6.35		
120	3	51	2.820 71.63	2.863 72.72	67	3.610 91.69	3.653 92.79	2.830 71.88	3.620 91.95	6.616 168.05	.185 4.70	.100 [2.54]	2-145090-9
130	3	57	3.120 79.25	3.163 80.34	71	3.810 96.77	3.853 97.87	3.130 79.50	3.820 97.03	7.116 180.75	.185 4.70	.100 [2.54] .125 [3.18]	3-145090-3 3-145090-4

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

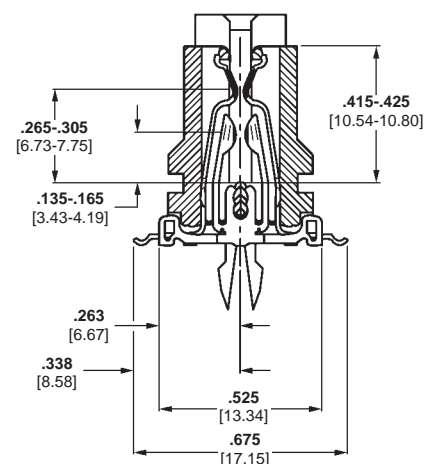
High-Speed Standard Edge Connectors, Surface-Mount 73 and 90 Dual Positions

Material and Finish:

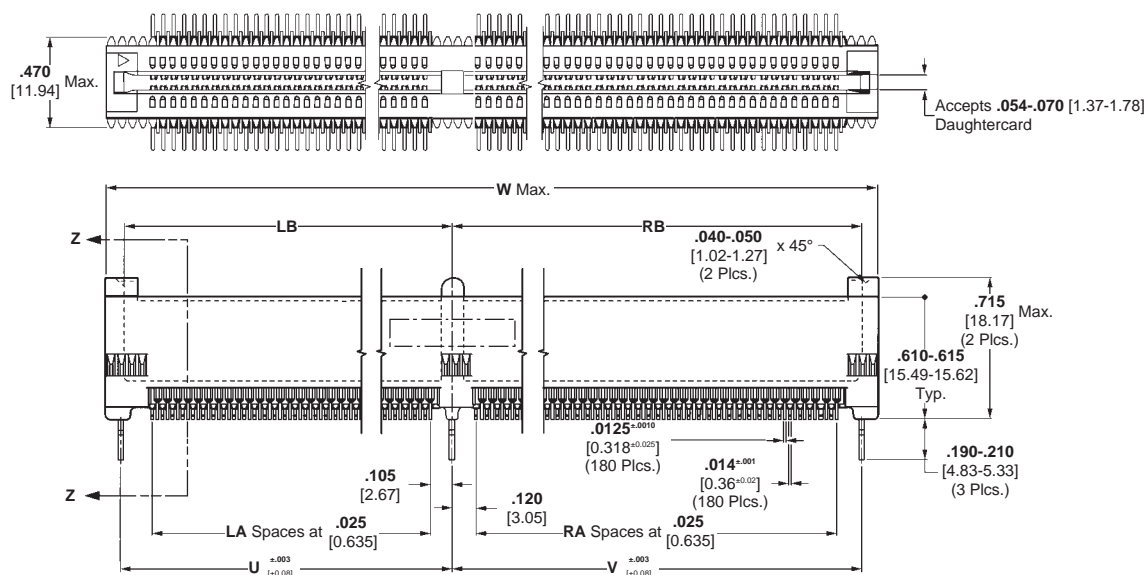
Housing—Polyphenylene sulfide, brown

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold in contact area, .000100 [0.00254] min. tin-lead on solder leads, with entire contact underplated .000050 [0.00127] min. nickel

Printed Circuit Board Connectors (Continued)



Section Z-Z
Only Contacts at Section
Shown for Clarity, Typ.



No. of Dual Positions	No. of Board Retainers	Dimensions										Part Numbers	
		LA	LB	LC	LD	RA	RB	RC	RD	U	V		W
73	3	63	1.820 46.23	31	1.863 47.32	81	2.260 57.40	40	2.303 58.50	1.830 46.48	2.270 57.66	4.266 108.36	145064-1

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge .050 Series PCI
Connectors, 32 Bit, 3.3 and 5
Volt Signaling

60 Dual Positions
with 2 Plastic Pylons

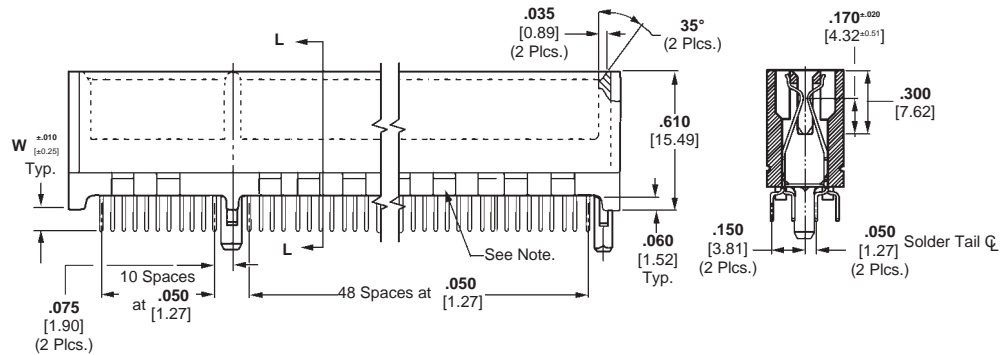
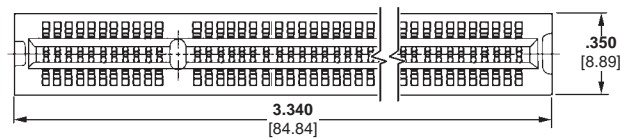
Material and Finish:

Housing—High temperature thermo-plastic, white

Contacts—Phosphor bronze, plated as follows:

Plating D—Duplex plated gold flash over .000040 [0.00102] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Printed Circuit Board Connectors (Continued)



W (Post Length)	Contact Finish	Part Numbers
.100 2.54	Plating D	145154-4
.125 3.18	Plating D	145154-8
.140 3.56	Plating D	1-145154-2

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge .050 Series PCI
Connectors, 32 Bit, 3.3 and 5
Volt Signaling

60 Dual Positions
with 2 Metal Holddowns

Material and Finish:

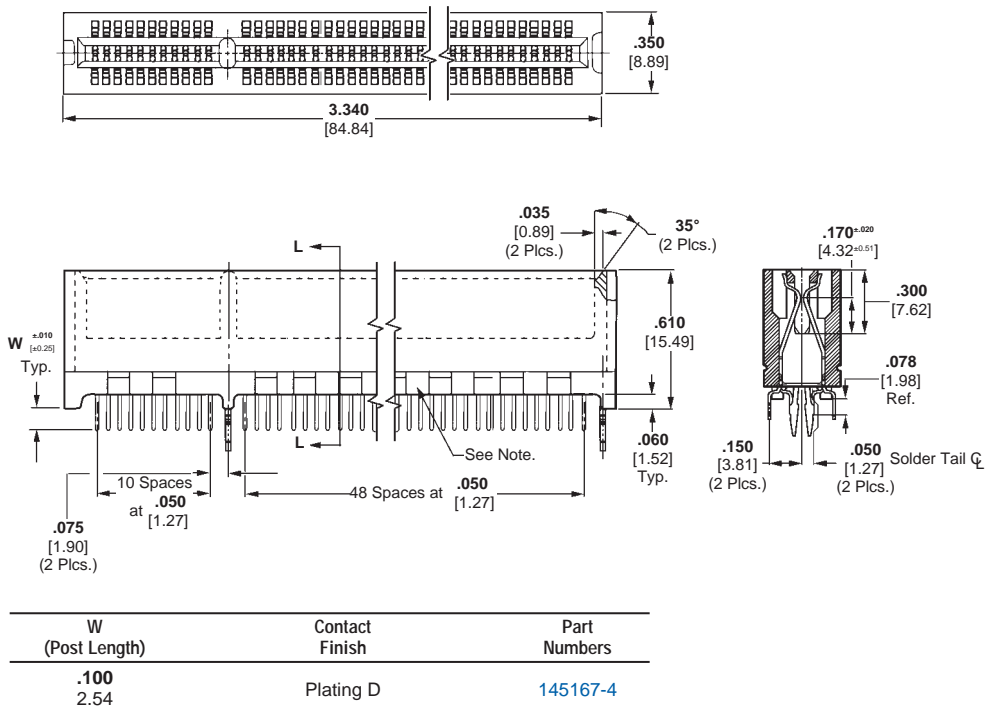
Housing—High temperature thermo-plastic, white

Holddowns—Brass, plated .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel

Contacts—Phosphor bronze, plated as follows:

Plating D—Duplex plated gold flash over .000040 [0.00102] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Printed Circuit Board Connectors (Continued)



Standard Edge .050 Series PCI
Surface-Mount Connectors,
Configuration: 1 Key—2 Metal
Holddowns

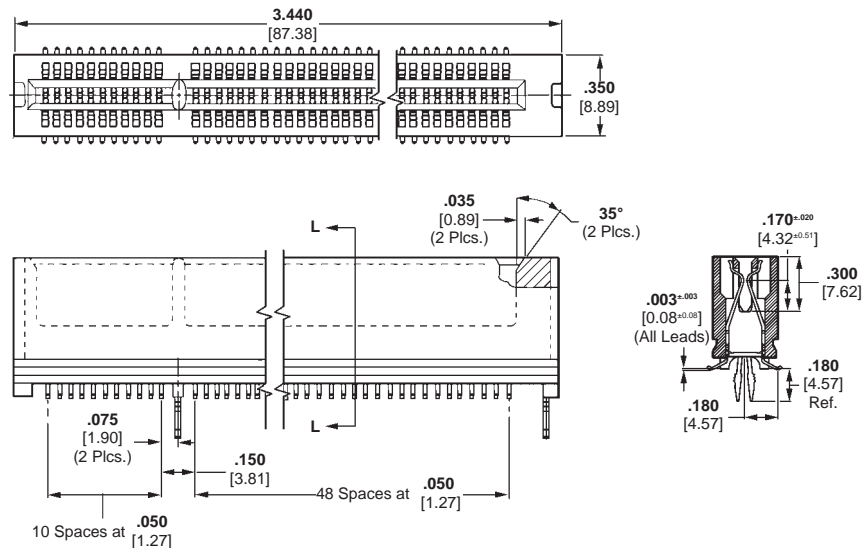
60 Dual Positions
Part No. 145098-1

Material and Finish:

Housing—High temperature thermo-plastic, white

Holddowns—Brass, plated .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge .050 Series PCI
Connectors,
64 Bit, 3.3 Volt Signaling

92 Dual Positions
with 3 Plastic Pylons

Material and Finish:

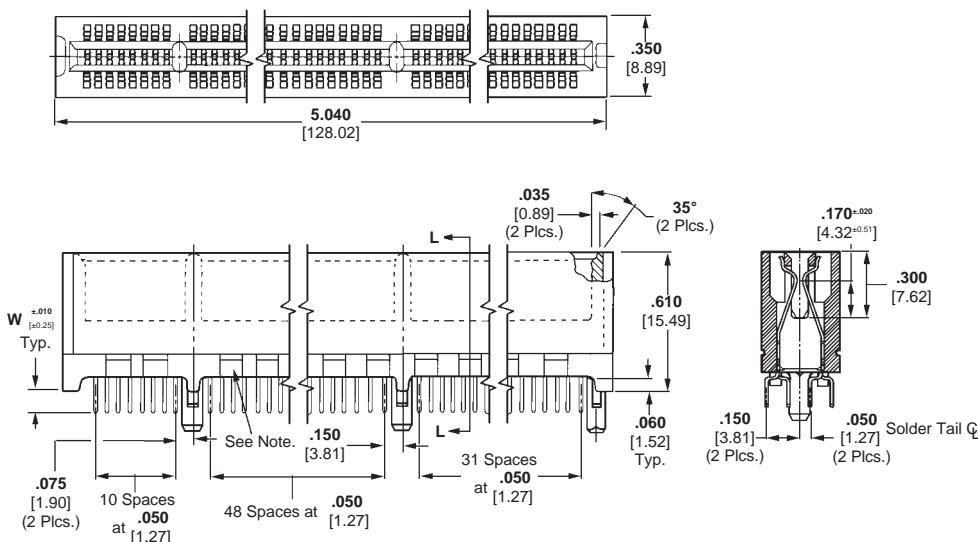
Housing—High temperature thermo-plastic, white

Contacts—Phosphor bronze, plated as follows:

Plating—Duplex plated gold flash over .000040 [0.00102] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Note: See page 136 for part numbers.

Printed Circuit Board Connectors (Continued)



Standard Edge .050 Series PCI
Connectors,
64 Bit, 3.3 Volt Signaling

92 Dual Positions
with 3 Metal Holddowns

Material and Finish:

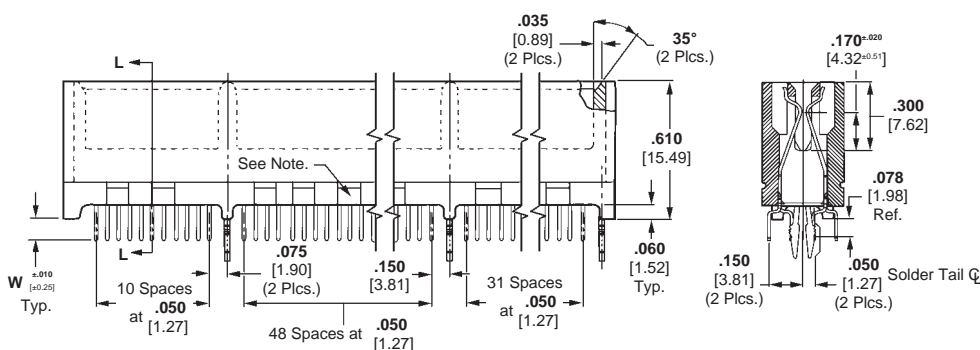
Housing—High temperature thermo-plastic, white

Holddowns—Brass, plated .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel

Contacts—Phosphor bronze, plated as follows:

Plating—Duplex plated gold flash over .000040 [0.00102] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Note: See page 136 for part numbers.



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge .050 Series PCI
Connectors,
64 Bit, 5 Volt Signaling

92 Dual Positions
with 3 Plastic Pylons

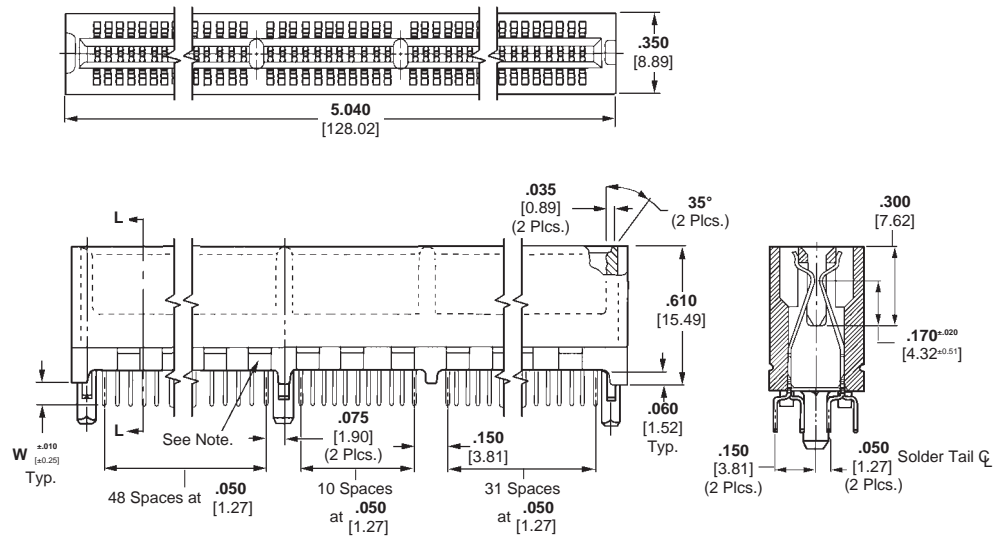
Material and Finish:

Housing—High temperature thermo-plastic, white

Contacts—Phosphor bronze, plated as follows:

Plating—Duplex plated gold flash over .000040 [0.00102] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Printed Circuit Board Connectors (Continued)



Standard Edge .050 Series PCI
Connectors,
64 Bit, 5 Volt Signaling

92 Dual Positions
with 3 Metal Holddowns

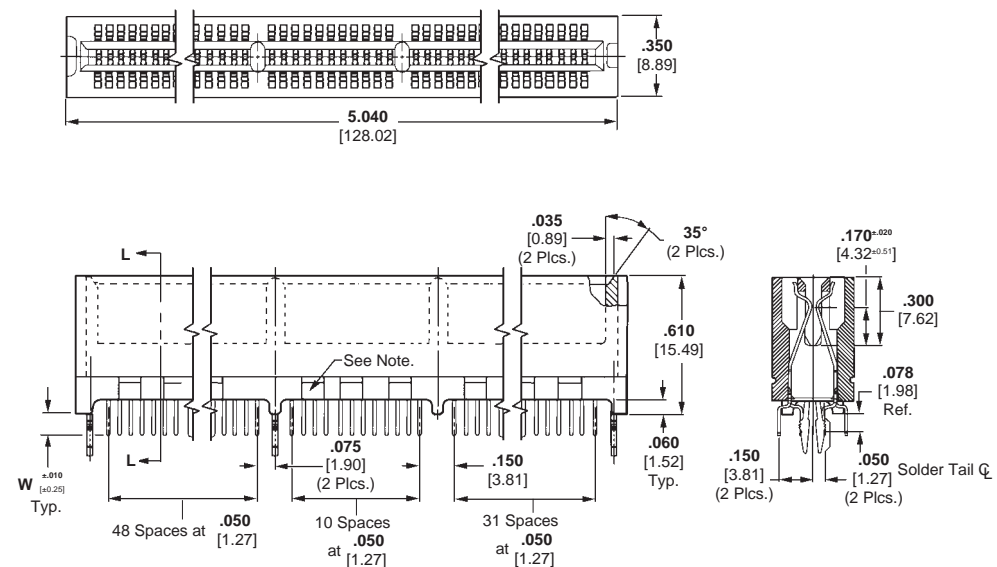
Material and Finish:

Housing—High temperature thermo-plastic, white

Holddowns—Brass, plated .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel

Contacts—Phosphor bronze, plated as follows:

Plating—Duplex plated gold flash over .000040 [0.00102] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel



W (Post Length)	3.3 V Signaling		5 V Signaling	
	3 Plastic Pylons	3 Metal Holddowns	3 Plastic Pylons	3 Metal Holddowns
.100 2.54	145165-4	145168-4	145166-4	145169-4
.125 3.18	145165-8	—	145166-8	145169-8
.140 3.56	—	—	145166-2	—

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Note: See page 135 for 3.3 Volt Signaling specifications.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge .050 Series Connectors, Configuration: 1 Key—2 Plastic Pylons

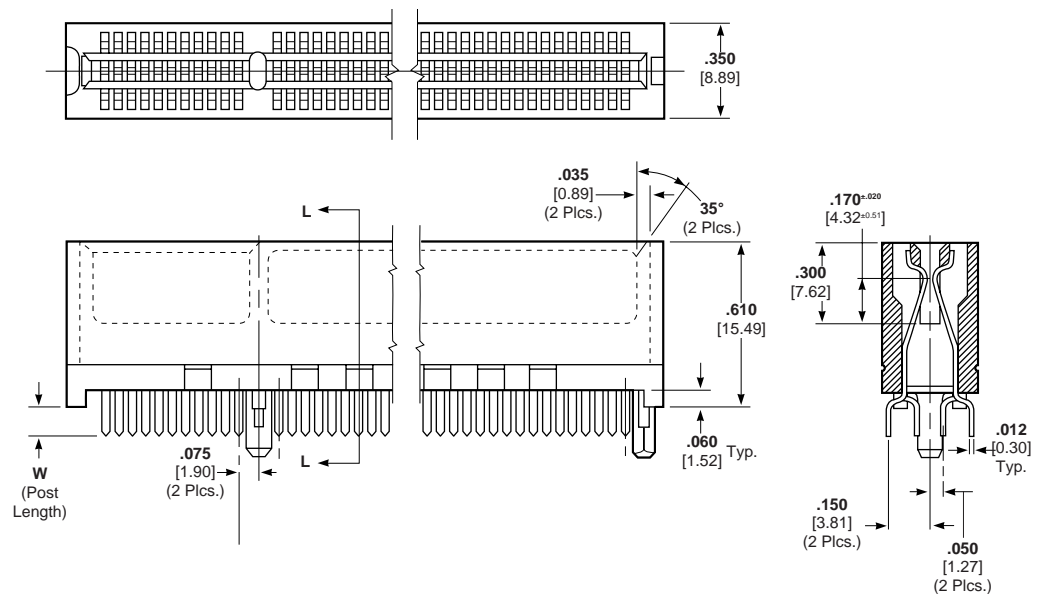
Material and Finish:

Housing—High temperature thermo-plastic, brown

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Note: See page 138 for part numbers.

Printed Circuit Board Connectors (Continued)



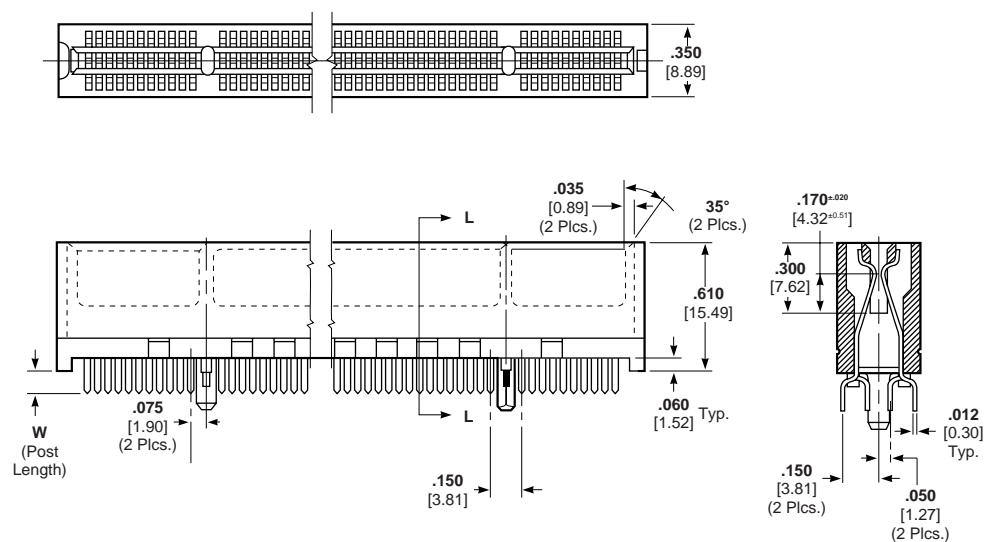
Standard Edge .050 Series Connectors, Configuration: 1 Key/1 Web—2 Plastic Pylons

Material and Finish:

Housing—High temperature thermo-plastic, brown

Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold in contact area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel

Note: See page 138 for part numbers.



For Complete Product Information, Order Catalog 82619

Card Edge Connectors
(Board to Board)

See page 137 for specifications.

Printed Circuit Board Connectors (Continued)

No. of Dual Positions	W (Post Length)	Part Numbers	Part Numbers
		1 Key	1 Key/1 Web
30	.100 2.54	650090-6	—
40	.100 2.54	650090-3	—
	.140 3.56	650181-2	—
45	.100 2.54	650090-2	—
56	.100 2.54	650090-1 ¹	—
	.140 3.56	650181-1	—
66	.100 2.54	—	650091-1 ²
	.140 3.56	—	650091-2
91	.100 2.54	650092-1 ²	—
	.140 3.56	650092-2	—
97	.100 2.54	—	650706-1 ²
101	.100 2.54	—	650707-1 ²
120	.140 3.56	—	650231-1

¹ Connector used for VL Local Bus and MCA Bus applications.² Connector used for MCA Bus applications.

Note:
BLUE part numbers indicate 2D
 geometry and 3D CAD models that
 are included on CD-ROM.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge II Connectors

**.100 [2.54] and .125 [3.18]
Centerline, Vertical Solder
Posts, Without Mounting Ears**

Material and Finish:

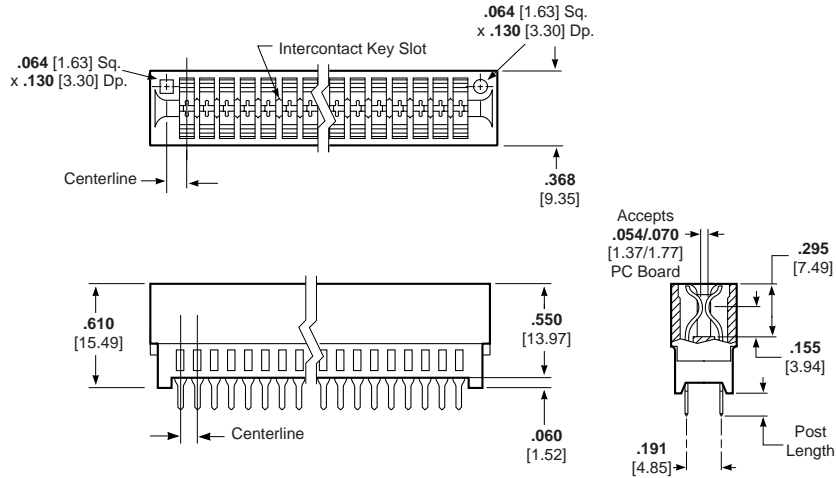
Housing—Black glass-filled polyester,
94V-0 rated

Contacts—Phosphor bronze, duplex
plated as follows:

Plating A—.000030 [0.00076] gold in
contact area, tin on posts, with entire
contact nickel underplated

Plating B—.000015 [0.00038] gold in
contact area, tin on posts, with entire
contact nickel underplated

Printed Circuit Board Connectors (Continued)



No. of Dual Positions	Centerline	Post Length	Part Numbers	
			Plating A	Plating B
3	.100 [2.54]	.125 [3.18]	7-530843-7	—
6	.100 [2.54]	.125 [3.18]	7-530843-5	—
	.125 [3.18]	.125 [3.18]	650207-1 ¹	—
10	.100 [2.54]	.125 [3.18]	5-530843-0	—
		.187 [4.75]	4-530843-9	—
12	.100 [2.54]	.125 [3.18]	530843-1	—
15	.100 [2.54]	.125 [3.18]	530843-2	—
18	.100 [2.54]	.125 [3.18]	530843-3	2-530843-7
		.125 [3.18]	1-530844-5	—
20	.100 [2.54]	.125 [3.18]	5-530843-4	—
22	.100 [2.54]	.125 [3.18]	530843-4	—
25	.100 [2.54]	.125 [3.18]	530843-5	—
28	.100 [2.54]	.125 [3.18]	530843-6	—
		.125 [3.18]	1-530844-7	—
30	.100 [2.54]	.125 [3.18]	530843-7	—
		.187 [4.75]	1-530843-8	—
31	.100 [2.54]	.125 [3.18]	6-530843-5	7-530843-0
36	.100 [2.54]	.125 [3.18]	530843-8	—
40	.125 [3.18]	.187 [4.75]	2-530844-0	—
50	.100 [2.54]	.125 [3.18]	1-530843-1	—

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

¹Connectors with Retention Feature.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge II Connectors

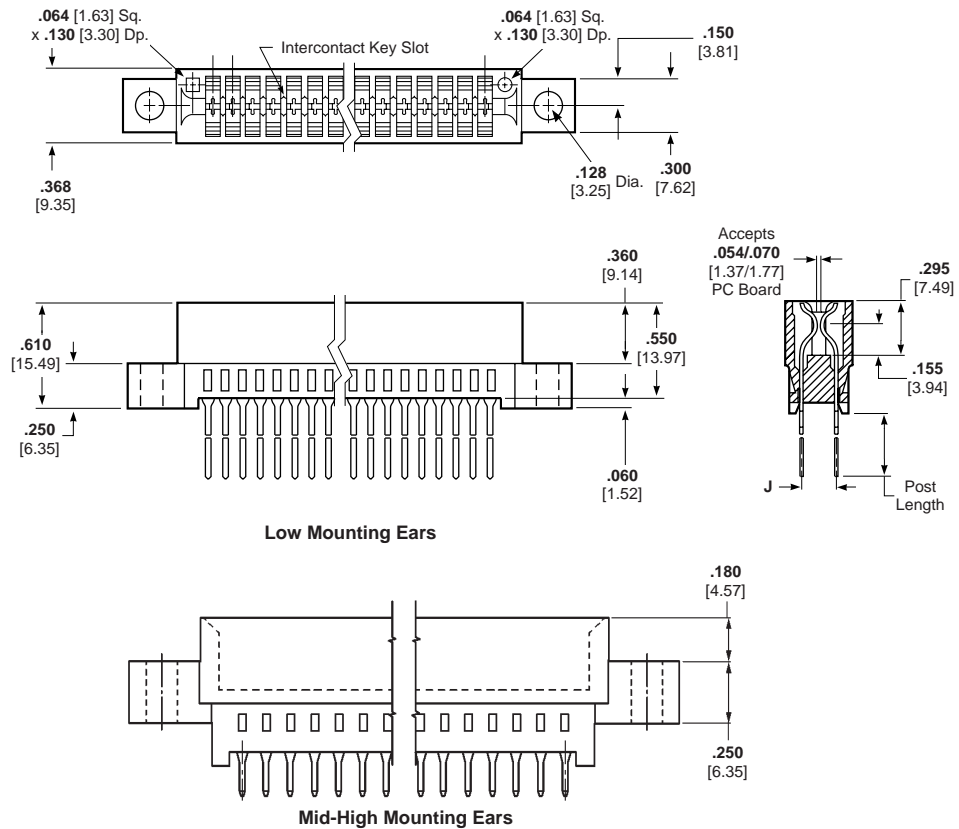
**.100 [2.54] and .125 [3.18]
Centerline, Vertical Solder
Posts, Low and Mid-High
Mounting Ears**

Material and Finish:

Housing—Black glass-filled polyester,
94V-0 rated

Contacts—Phosphor bronze, plated
with .000030 [0.00076] gold in contact
area, tin on posts, with entire contact
nickel underplated

Printed Circuit Board Connectors (Continued)



No. of Dual Positions	Centerline	Post Length	Part Numbers
15	.100 [2.54]	.125 [3.18]	530841-2
25	.100 [2.54]	.125 [3.18]	530841-5
28	.125 [3.18]	.187 [4.75]	3-531341-0 ¹
50	.100 [2.54]	.125 [3.18]	1-530841-1

¹Connectors with Mid-High Mounting Ears.

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge II Connectors

**.100 [2.54] Centerline,
Right-Angle Solder Posts,
With Low and No Mounting
Ears**

Material and Finish:

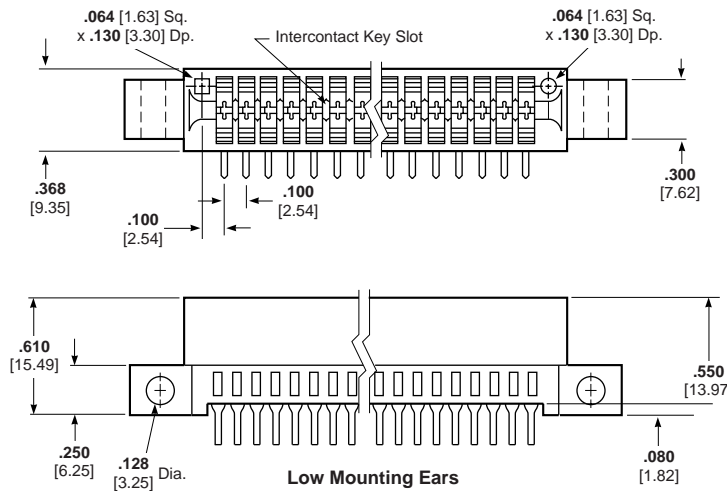
Housing—Black glass-filled polyester,
94V-0 rated

Contacts—Phosphor bronze, duplex
plated as follows:

Plating A—.000030 [0.00076] gold in
contact area, tin on posts, with entire
contact nickel underplated

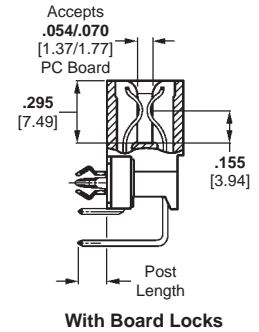
Plating B—.000015 [0.00038] gold in
contact area, tin on posts, with entire
contact nickel underplated

Printed Circuit Board Connectors (Continued)

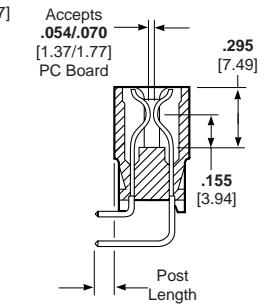


No. of Dual Positions	Post Length	Low Mounting Ears Part Numbers Plating A	No Mounting Ears Part Numbers Plating B
12	.090 [2.27]	145089-1 ¹	—
31	.090 [2.27]	—	532600-4

¹Connector with Board Locks.



With Board Locks



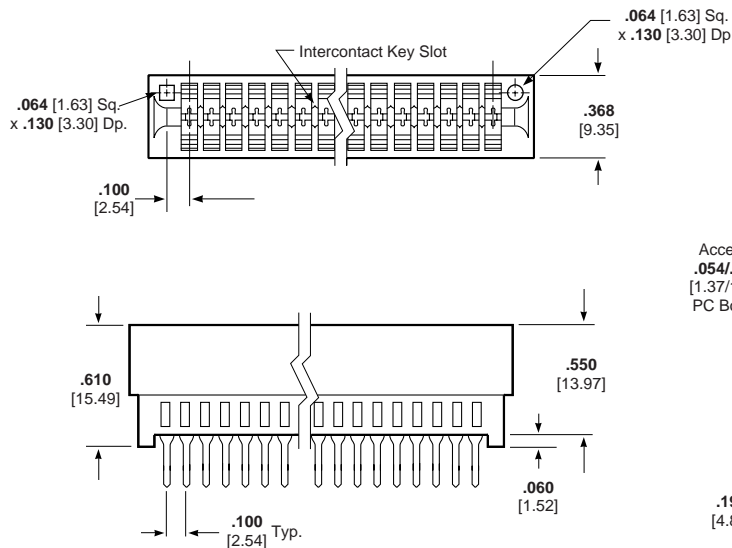
Standard Edge II Connectors

**.100 [2.54] Centerline
Vertical Solder Posts,
Retention Feature,
Without Mounting Ears**

Material and Finish:

Housing—Black glass-filled polyester,
94V-0 rated

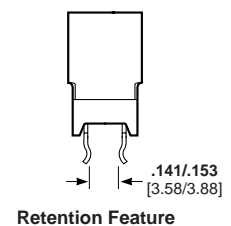
Contacts—Phosphor bronze, duplex
plated with .000030 [0.00076] gold in
contact area, tin on posts, with entire
contact nickel underplated



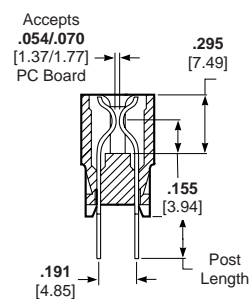
No. of Dual Positions	Post Length	Retention Feature	Part Numbers
18	.125 [3.18]	3-6, 31-34	645235-4
31	.125 [3.18]	31-34, 57-60	645235-1
50	.125 [3.18]	95-98	645235-3
60	.125 [3.18]	63-66, 115-118	645235-8

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.



Retention Feature



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Standard Edge II Connectors

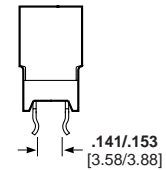
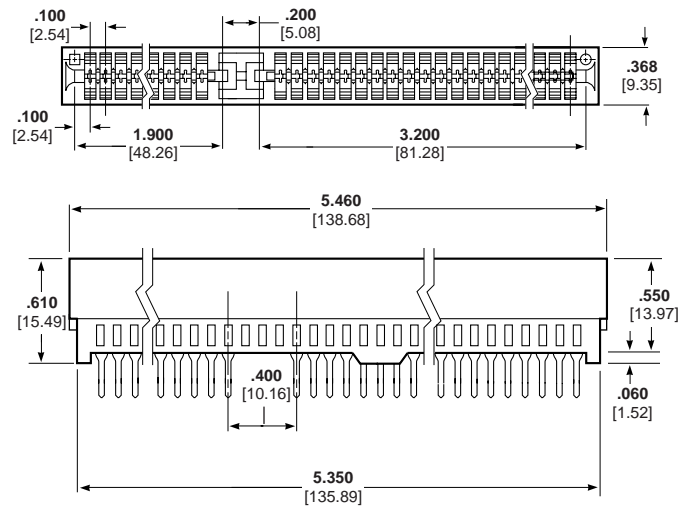
**.100 [2.54] Centerline,
Special 18/31 Dual
Combination Connector,
Vertical Solder Posts,
Without Mounting Ears**

Material and Finish:

Housing—Black glass-filled polyester, 94V-0 rated, except where noted

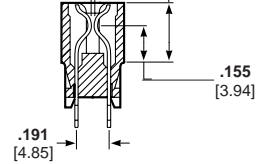
Contacts—Phosphor bronze, plated with .000030 [0.00076] gold in contact area (except where noted), tin on posts, with entire contact nickel underplated

Printed Circuit Board Connectors (Continued)



Retention Feature

Accepts
.054/.070
 [1.37/1.77]
 PC Board



Solder Posts

No. of Dual Positions	Post Length	Retention Feature	Part Numbers
52	.125 [3.18]	3-6, 41, 42, 51, 52, 93-96	645169-2 536128-1 ¹
52	.125 [3.18]	None	645169-3
52	.125 [3.18]	3-14, 41, 42, 51, 52, 85-96	645169-4
52	.125 [3.18]	5, 6, 31, 32, 41, 42, 93, 94	176139-1 ² 176139-2 ³
52	.187 [4.75]	None	650616-1

¹Housing material is high temperature glass-filled polyester, gray.

²Contact area is gold flash.

³Contact area is .000015 [0.00038] gold plate.

**AMP PACE Connectors,
.100 x .100 [2.54 x 2.54]
Centerline**

**25 Dual Position,
Closed End/Closed End,
.180 [4.57] Post Length
Part Number: 1-119734-1**

Material and Finish:

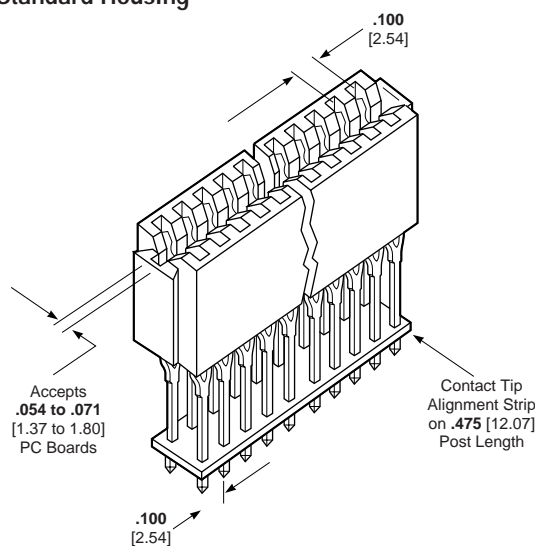
Housing—Black glass-filled polyester, 94V-0 rated

Contacts—Phosphor bronze, plated gold flash over .000030 [0.00076] min. palladium-nickel in contact area, .000100 [0.00254] min. tin-lead on posts, with entire contact underplated .000050 [0.00127] min. nickel

Contact Tip Alignment Strip—Clear polyester, type D

Note: Full palladium-nickel plated posts and other platings and plating thicknesses can be made available.

Standard Housing



Accepts
.054 to .071
 [1.37 to 1.80]
 PC Boards

Contact Tip
 Alignment Strip
 on .475 [12.07]
 Post Length

Note:
BLUE part numbers indicate 2D
 geometry and 3D CAD models that
 are included on CD-ROM.

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

AMP PACE Connectors,
.100 x .200 [2.54 x 5.08]
Centerline

Closed End/Closed/End

Material and Finish:

Housing—Black glass-filled polyester,
94V-0 rated

Contacts—Phosphor bronze, plated
gold flash over .000030 [0.00076] min.
palladium-nickel in contact area,
.000100 [0.00254] min. tin-lead on
posts, with entire contact underplated
.000050 [0.00127] min. nickel

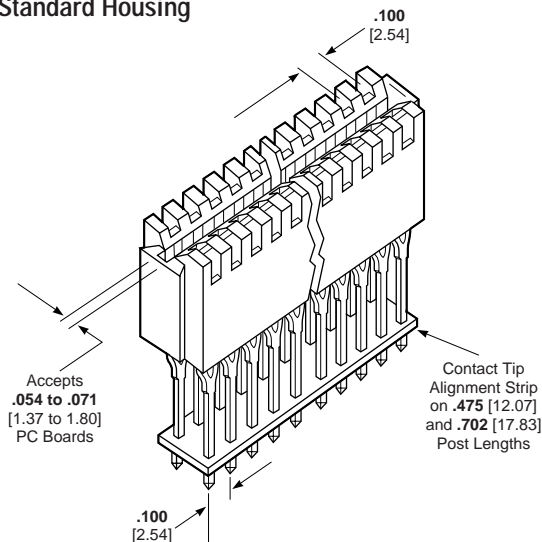
Contact Tip Alignment Strip—Clear
polyester, type D

Note: Full palladium-nickel plated
posts and other platings and plating
thicknesses can be made available.

Printed Circuit Board Connectors (Continued)

No. of Dual Positions	Post Length	Part Number
18	.180 [4.57]	1-19738-4
20	.180 [4.57]	1-19738-6
30	.180 [4.57]	1-119738-6
	.475 [12.07]	1-119216-6
32	.180 [4.57]	1-650122-8
37	.180 [4.57]	2-650122-3
40	.180 [4.57]	2-119738-6
43	.180 [4.57]	2-650122-9
50	.180 [4.57]	3-119738-6
	.475 [12.07]	3-119216-6
60	.180 [4.57]	4-119738-6

Standard Housing



AMP PACE Connectors,
.156 x .200 [3.96 x 5.08]
Centerline

Closed End/Closed End

Material and Finish:

Housing—Black glass-filled polyester,
94V-0 rated

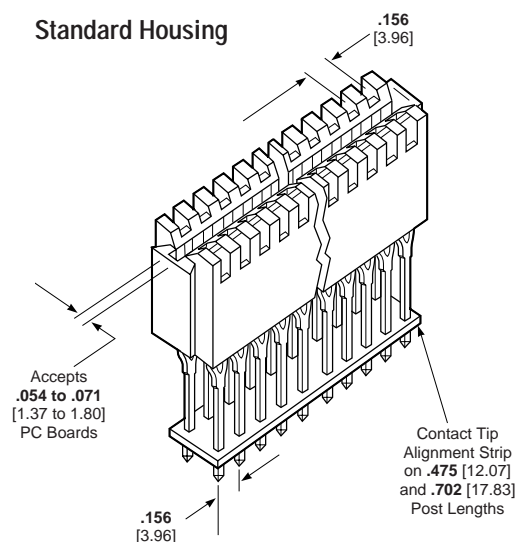
Contacts—Phosphor bronze, plated
gold flash over .000030 [0.00076] min.
palladium-nickel in contact area,
.000100 [0.00254] min. tin-lead on
posts, with entire contact underplated
.000050 [0.00127] min. nickel

Contact Tip Alignment Strip—Clear
polyester, type D

Note: Full palladium-nickel plated
posts and other platings and plating
thicknesses can be made available.

No. of Dual Positions	Post Length	Part Number
22	.180 [4.57]	1-19790-8
43	.180 [4.57]	2-119790-9

Standard Housing



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

Accessories for AMP PACE Connectors

Ground Module Part Number: 119341-1

Rating:

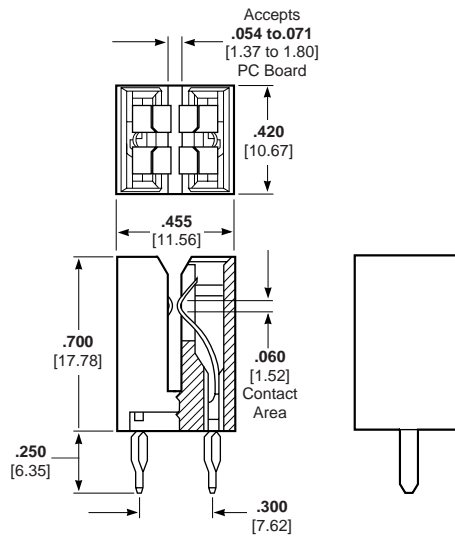
20 amperes per contact—Copper or aluminum bus

Material and Finish:

Housing—Black glass-reinforced thermoplastic

Contact—CA 195, 3/4 hard, plated .000050 [0.00127] gold in contact area (front face only); .000100 [0.00254] tin-lead on post, with entire contact under-plated .000050 [0.00127] nickel

Printed Circuit Board Connectors (Continued)



ECONOMATE Connectors

Feed-Through Posts

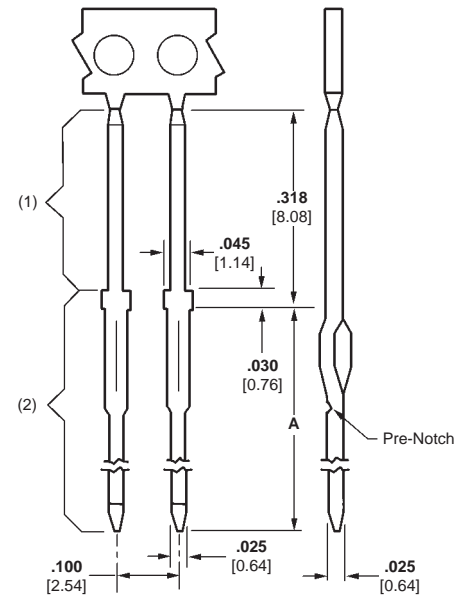
Material and Finish:

Copper alloy 725, selectively plated .000030 [0.00076] min. gold in Area (1), .000001 [0.00003] min. gold in Area (2), with entire post underplated .000050 [0.00127] min. nickel

Dimension A	Part Numbers ¹
.687 17.45	117249-7
.500 12.70	3-117249-2

¹Posts in strip form, 50,000 per reel.

.100 [2.54] Centerline Spacing



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Board to Board)

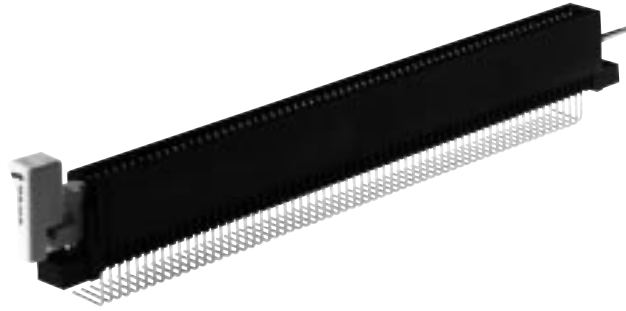
Rotary Cam ZIF Connectors,
.100 x .200 [2.54 x 5.08]
Centerline

22 Dual Position, Right-Angle
Connector, Solder Post
Terminal, Closed Both Ends
Part Number: 531019-1

Material and Finish:

Housing—Glass-filled polyester,
94V-0 rated

Contacts—Phosphor bronze, plated
.000030 [0.00076] gold per
MIL-G-45204 in contact area; .000100
[0.00254] tin-lead per MIL-P-81728
on post with entire contact underplated
.000050 [0.00127] nickel per QQ-N-290



Linear ZIF Connectors,
.100 x .100 [2.54 x 2.54]
Centerline

100 Dual Position Housing
Part Number: 1-645115-5

Material: Glass-filled polyester, black

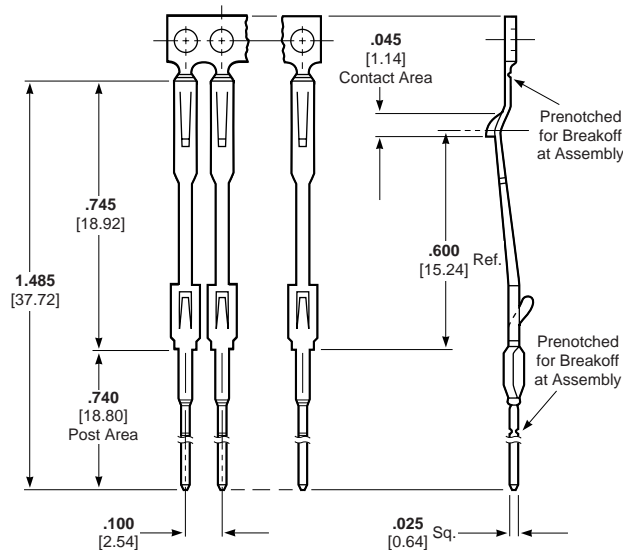
Lever Style, Side Entry



ACTION PIN Reeled Contacts
with Wiping Feature,
.100 [2.54] Centerline
Part Number: 119196-6

Material and Finish:

Copper alloy 725, plated .000015
[0.00038] gold per MIL-G-45204 in
contact area; .000001 [0.00003] min.
gold flash per MIL-G-45204 on post
with entire contact underplated .000050
[0.00127] nickel per QQ-N-290



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Wire to Board)

Crimp Snap Twin Leaf Connectors

Crimp, Snap-In Contacts

Material and Finish:

Phosphor bronze, plated .000030
[0.00076] nickel on entire contact, with
the addition of one of the following
platings:

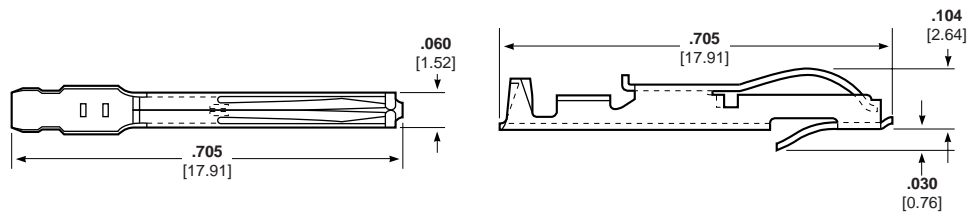
Plating A—.000030 [0.00076] gold in
mating area

Plating B—.000015 [0.00038] gold in
mating area

Plating C—.000050 [0.00127] gold in
mating area, with gold flash on remain-
der of contact

Note: Tin plating is available upon
request.

Printed Circuit Board Connectors (Continued)



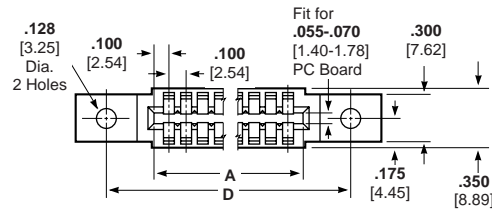
Connector Centerline	Wire Size Range AWG/mm ²	Insulation Dia. Range	Contact Finish (Plating)	Contact Part Numbers	
				Loose Piece	Strip Form
.156 [3.96]	28-24 [0.08-0.2]	.035-.055 0.89-1.40	A	—	583616-2
			A	583853-5	583853-3
	24-20 [0.2-0.6]	.048-.060 1.22-1.52	B	583853-4	583853-2
			C	—	583853-8
	22-18 [0.3-0.9]	.049-.095 1.24-2.41	A	—	583649-3
			B	—	583649-2

Crimp Snap Twin Leaf Connectors, .100 [2.54] Centerline

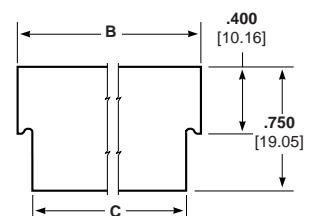
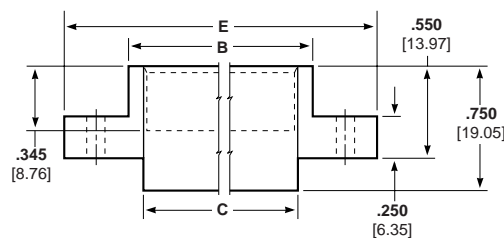
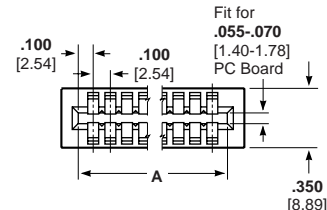
Housings

Material: Black glass-filled polyester,
94V-0 rated

With Mounting Ears



Without Mounting Ears



No. of Dual Positions	Dimensions					Part Numbers	
	A	B	C	D	E	Without Mounting Ears	With Mounting Ears
6	.700 [17.78]	.900 [22.86]	.720 [18.29]	1.175 [29.85]	1.430 [36.32]	—	583861-5
10	1.100 [27.94]	1.300 [33.02]	1.120 [28.49]	1.700 [43.18]	2.100 [53.34]	—	583718-1
				1.575 [40.01]	1.830 [46.48]	—	583861-7
30	3.100 [78.74]	3.300 [83.82]	3.120 [79.25]	3.700 [93.98]	4.100 [104.14]	1-583717-3	—
32	3.300 [83.82]	3.500 [88.90]	3.320 [84.33]	3.900 [99.06]	4.300 [109.22]	—	2-583718-7
50	5.100 [129.54]	5.300 [134.62]	5.120 [130.05]	5.700 [144.78]	6.100 [154.94]	—	1-583718-7

For Complete Product Information, Order Catalog 82619

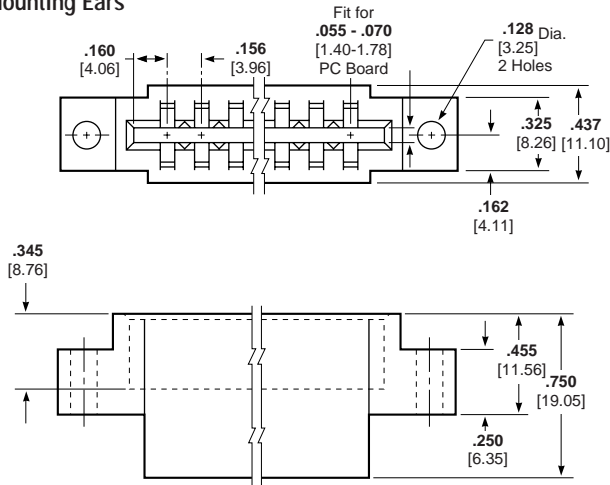
Card Edge Connectors (Wire to Board)

Crimp Snap Twin Leaf
Connectors, .156 [3.96]
Centerline

28 Dual Positions Housings
Part Number: 583859-1

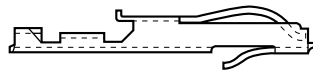
Material: Black glass-filled poly-
ester, 94V-0 rated

With Mounting Ears



Accessories for Crimp Snap Twin Leaf Connectors

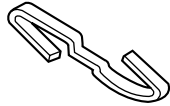
Dummy Contacts
Material: Phosphor bronze



Tin Plated — Part No. 583857-5
Gold Flash-Over-Nickel Plate — Part No. 583857-7

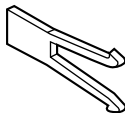
Retaining Spring

Material: Stainless steel



Unplated — Part No. 583691-2

Keying Plugs



On-Contact Plug
Natural Nylon — Part No. 583764-1

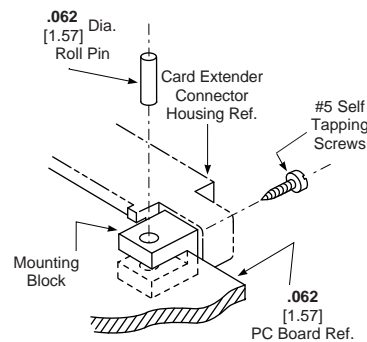
Mounting Block

Material: Natural color nylon

Kit Part No. 531250-4

Each kit includes 2 mounting blocks
2 self tapping screws,
#5 x .437 [11.10]
2 roll pins,
.075 x .250 [1.57 x 6.35]

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Wire to Board)

AMP-LEAF Connectors

Crimp, Snap-In Contacts

Material and Finish:

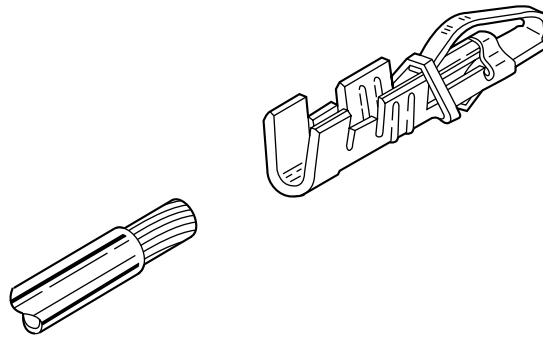
Phosphor bronze, plated as follows:

Plating A—.000100-.000200
[0.00254-0.00508] tin (lubricant must
be used)

Plating B—.000030 [0.00076] min.
gold in mating area, gold flash on
remainder of contact, with entire contact
underplated .000050 [0.00127] min.
nickel

Plating C—.000015 [0.00038] min.
gold in mating area, gold flash on
remainder of contact, with entire contact
underplated .000050 [0.00127] min.
nickel

Printed Circuit Board Connectors (Continued)

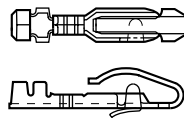


Wire Range AWG/mm2	Insulation Range		Contact Part Numbers		Contact Finish
	Single Wire	Double Wire	Loose Piece	Strip Form	
26-22 0.12-0.4	.050-.064 1.27-1.63	—	583990-3	583204-2	B
22-18 0.3-0.9	.055-.080 1.40-2.03	.120 3.05 Max.	—	583361-2	A
			583989-3	—	B
			—	583361-4	C
16 1.25-1.40	.108 2.74 Max.	.080-.160 2.03-4.06	—	60151-6	B

Dummy Contact

Material:

Phosphor bronze



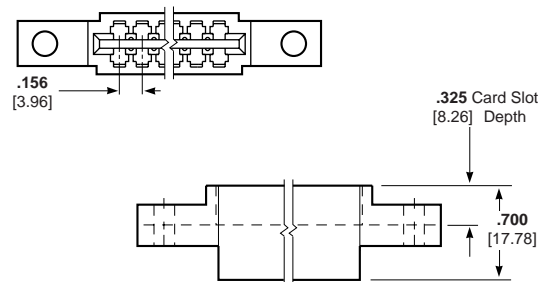
Tin Finish—
Part No. 66084-2
Gold Finish—
Part No. 66084-3

AMP-LEAF Connectors, .156 [3.96] Centerline

Glass-Filled Polyester Housings

Material: Glass-filled polyester

No. of Dual Positions	Housing Part Numbers
10	583723-1
22	583617-1

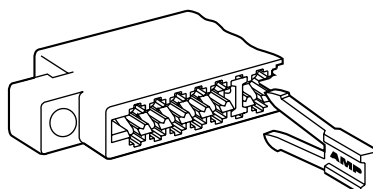


AMP-LEAF Connector Accessories

Keying Plugs

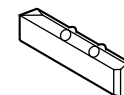
Material: Nylon

On-Contact Keying Plug



.055-.070 [1.4-1.78] Board Thickness—**Part No. 480143-1**

Intercontact Keying Plugs



.040 [1.02] Wide—**Part No. 582501-1**
.025 [0.64] Wide—**Part No. 583274-1**

For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Wire to Board)

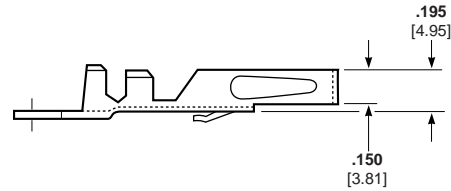
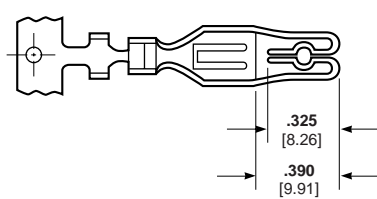
High Current Connectors

Crimp, Snap-In Contacts

Material and Finish:

Copper alloy CDA-195 plated .000150
[0.00381] bright tin over .000030
[0.00076] nickel

Printed Circuit Board Connectors (Continued)



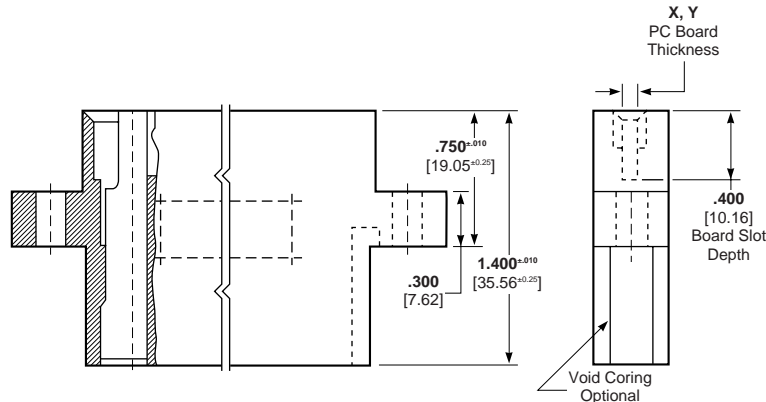
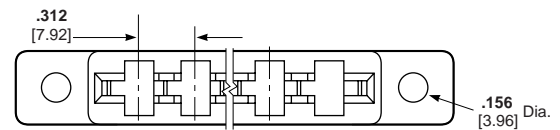
Wire Size Range		Ins. Dia. Range	Mateable Daughter Board Thickness	Contact Part Numbers	
AWG	mm2			Loose Piece	Strip Form
16-14	1.25-2	.090-.145 2.29-3.68	.062 1.57	530518-1	530517-2
12-10	3-6	.160-.210 4.06-5.33	.062 1.57	530520-1	530519-2

High Current Connectors, .312 [7.92] Centerline

Housings

Material: White glass-filled polyester,
94V-0 rated

No. of Pos.	Part Numbers
4	530521-3
8	530521-6
9	530521-7
12	530521-9



High Current Connectors .312 [7.92] Centerline

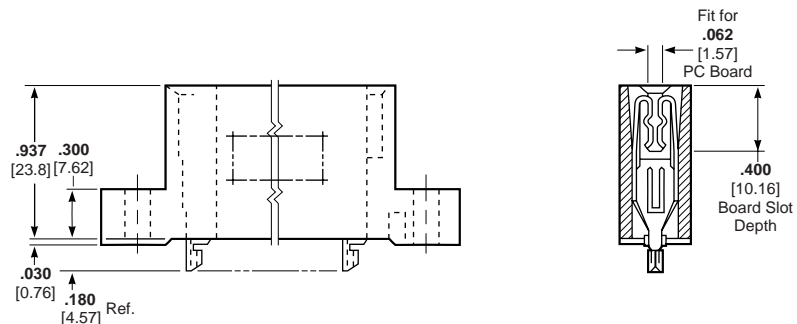
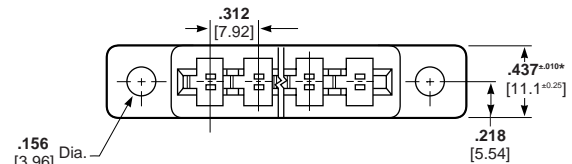
Housings Preloaded with Solder Tail Contacts

Material and Finish:

Housing—White glass-filled polyester,
94V-0 rated

Contacts—Copper alloy CDA-195
plated .000150 [0.00381] bright tin
over .000030 [0.00076] nickel

No. of Positions	Connector Part Numbers
8	531353-6
12	531353-9



For Complete Product Information, Order Catalog 82619

Card Edge Connectors (Wire to Board)

Special Blindmate Drawer Connectors

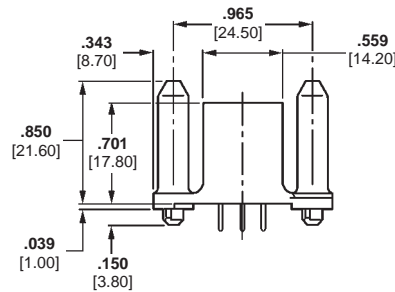
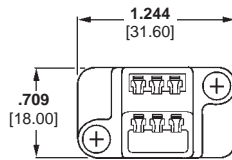
PC Board Header Housing, 6
Positions (fully loaded with
AMP-LEAF Solder Dip Contacts
583294-2)

Part Number 343888-2

Material and Finish:

Housing—Glass-filled polybutylene
terephthalate (PBT), black

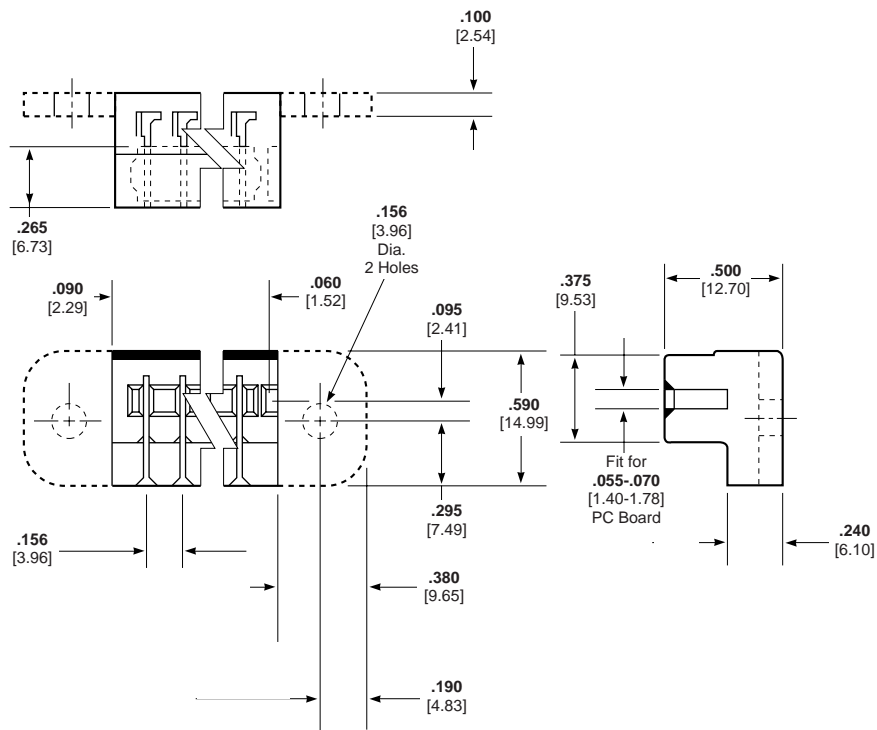
Contacts—Phosphor bronze, plated
.000015 [0.00038] min. gold in contact
area, tin on post, with entire contact
underplated .000050 [0.00127]
min. nickel



DUO-TYNE Flag Connectors

6 position, Housing, .090-.130
[2.29-3.30] Dia. Range
Without Mounting Ears
Part Number: **530853-3**

Material: Natural nylon



Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models that
are included on CD-ROM.

For Complete Product Information, Order Catalog 82619

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-100 IDC Connectors—Closed End and Feed-Thru

Material and Finish:

Housing—UL94V-2 rated, type 6/6 nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts—Phosphor bronze, post plated .000030 [0.00076] or .000015 [0.00038] post gold-plated over nickel

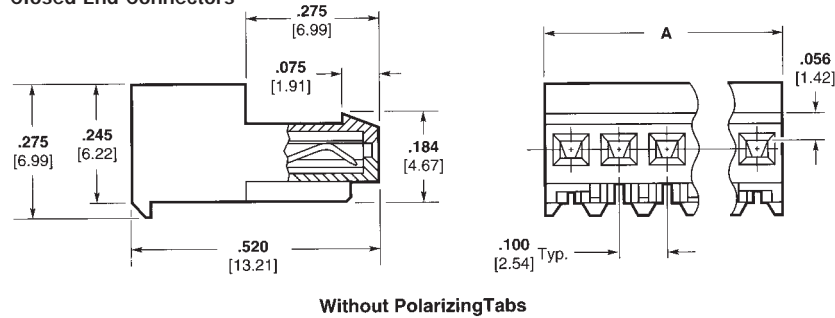
UL94V-2 Color Coding by Wire Size:

28 AWG—Green
26 AWG—Blue
24 AWG—White
22 AWG—Red

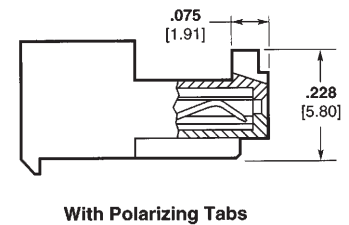
UL94V-0—Black

Printed Circuit Board Connectors (Continued)

Closed End Connectors

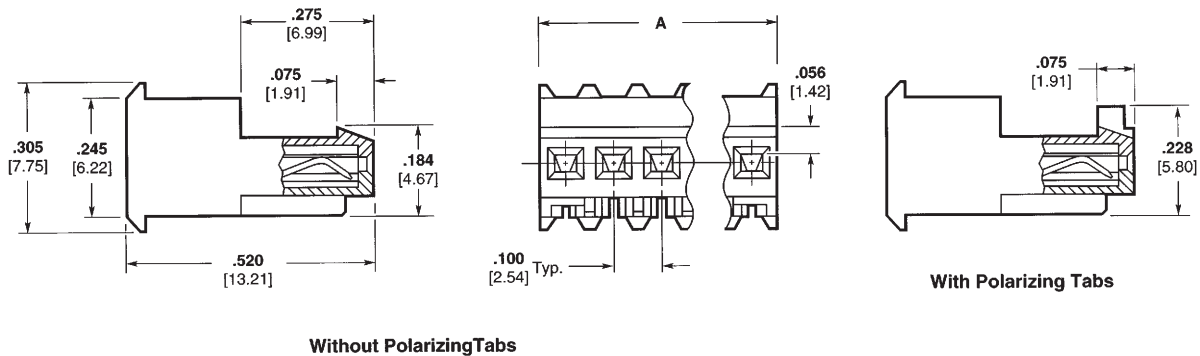


Without Polarizing Tabs



With Polarizing Tabs

Feed-Thru Connectors



Without Polarizing Tabs

With Polarizing Tabs

Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End		Feed-Thru	
			Without Tabs	With Tabs	Without Tabs	With Tabs
			Part Nos.	Part Nos.	Part Nos.	Part Nos.
Standard UL94V-2, Tin Plated						
22 AWG [0.3-0.4 mm²]	2	.200 [5.08]	640440-2	643813-2	640620-2	644540-2
	3	.300 [7.62]	640440-3	643813-3	640620-3	—
	4	.400 [10.16]	640440-4	643813-4	640620-4	644540-4
	5	.500 [12.7]	640440-5	643813-5	640620-5	644540-5
	6	.600 [15.24]	640440-6	643813-6	640620-6	—
	7	.700 [17.78]	640440-7	643813-7	640620-7	—
	8	.800 [20.32]	640440-8	643813-8	640620-8	—
	9	.900 [22.86]	640440-9	643813-9	—	—
	10	1.00 [25.4]	—	1-643813-0	1-640620-0	—
	11	1.100 [27.94]	—	1-643813-1	—	—
	12	1.200 [30.48]	—	1-643813-2	—	—
	13	1.300 [33.02]	—	1-643813-3	—	—
	14	1.400 [35.56]	—	1-643813-4	1-640620-4	—
	20	2.000 [50.8]	2-640440-0	2-643813-0	2-640620-0	2-644540-0
24	2.400 [60.96]	2-640440-4	2-643813-4	—	—	

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156
Connectors and Headers;
CST-100 Connectors and
Headers and SL-156
Connectors

MTA-100 IDC Connectors—
Closed End and Feed-Thru
(continued)

Printed Circuit Board Connectors (Continued)

Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End		Feed-Thru		
			Without Tabs	With Tabs	Without Tabs	With Tabs	
			Part Nos.	Part Nos.	Part Nos.	Part Nos.	
Standard UL94V-2, Tin Plated							
24 AWG [0.2 mm²]	2	.200 [5.08]	640441-2	643814-2	640621-2	—	
	3	.300 [7.62]	640441-3	643814-3	640621-3	644563-3	
	4	.400 [10.16]	640441-4	643814-4	—	—	
	5	.500 [12.7]	640441-5	643814-5	—	644563-5	
	6	.600 [15.24]	640441-6	643814-6	640621-6	644563-6	
	7	.700 [17.78]	640441-7	643814-7	640621-7	—	
	8	.800 [20.32]	640441-8	643814-8	640621-8	644563-8	
	9	.900 [22.86]	640441-9	643814-9	—	—	
	10	1.00 [25.4]	1-640441-0	1-643814-0	—	—	
	11	1.100 [27.94]	1-640441-1	1-643814-1	—	—	
	12	1.200 [30.48]	1-640441-2	1-643814-2	—	—	
	13	1.300 [33.02]	1-640441-3	—	—	—	
	14	14.00 [35.56]	1-640441-4	—	—	—	
	15	15.00 [38.1]	1-640441-5	—	—	—	
	16	16.00 [40.64]	1-640441-6	1-643814-6	—	—	
	20	2.000 [50.8]	2-640441-0	—	—	—	
	24	2.400 [60.96]	2-640441-4	—	—	—	
	26 AWG [0.12-0.15 mm²]	2	.200 [5.08]	640442-2	643815-2	—	—
		3	.300 [7.62]	640442-3	643815-3	—	—
		4	.400 [10.16]	640442-4	643815-4	—	—
5		.500 [12.7]	640442-5	643815-5	—	—	
6		.600 [15.24]	640442-6	643815-6	—	—	
7		.700 [17.78]	640442-7	643815-7	—	—	
8		.800 [20.32]	640442-8	643815-8	—	—	
9		.900 [22.86]	640442-9	643815-9	—	—	
10		1.00 [25.4]	1-640442-0	—	—	—	
11		1.100 [27.94]	—	1-643815-1	—	—	
12		1.200 [30.48]	1-640442-2	1-643815-2	—	—	
13		1.300 [33.02]	1-640442-3	—	—	—	
14		14.00 [35.56]	1-640442-4	—	—	—	
15		15.00 [38.1]	1-640442-5	—	—	—	
16		16.00 [40.64]	1-640442-6	—	—	—	
28 AWG [0.08-0.09 mm²]		2	.200 [5.08]	640443-2	643816-2	—	—
	3	.300 [7.62]	640443-3	—	—	—	
	4	.400 [10.16]	640443-4	—	—	—	
	5	.500 [12.7]	640443-5	643816-5	—	—	
	6	.600 [15.24]	640443-6	643816-6	—	—	
	7	.700 [17.78]	640443-7	—	—	—	
	8	.800 [20.32]	640443-8	643816-8	—	—	
	10	1.00 [25.4]	1-640443-0	—	—	—	
	12	1.200 [30.48]	1-640443-2	—	—	—	
Tape Mounted on Reel UL94V-2, Tin Plated							
22 AWG [0.3-0.4 mm²]	2	.200 [5.08]	—	644511-2	—	—	
	3	.300 [7.62]	640468-3	644511-3	—	—	
	8	.800 [20.32]	640441-8	644511-8	—	—	
24 AWG [0.2 mm²]	3	.300 [7.62]	640469-3	—	—	—	
26 AWG [0.12-0.15 mm²]	2	.200 [6.08]	640470-2	—	—	—	

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156
Connectors and Headers;
CST-100 Connectors and
Headers and SL-156
Connectors

MTA-100 IDC Connectors—
Closed End and Feed-Thru
(continued)

Printed Circuit Board Connectors (Continued)

Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End		Feed-Thru	
			Without Tabs	With Tabs	Without Tabs	With Tabs
			Part Nos.	Part Nos.	Part Nos.	Part Nos.
Standard UL94V-2, .000030 [0.00076] Gold Plated						
22 AWG [0.3-0.4 mm²]	2	.200 [5.08]	641237-2	644042-2	—	—
	3	.300 [7.62]	641237-3	644042-3	—	—
	4	.400 [10.16]	641237-4	644042-4	—	—
	5	.500 [12.7]	641237-5	644042-5	—	—
	6	.600 [15.24]	—	644042-6	—	—
	7	.700 [17.78]	641237-7	—	—	—
	8	.800 [20.32]	641237-8	644042-8	—	—
	10	1.00 [25.4]	—	1-644042-0	—	—
	12	1.200 [30.48]	—	1-644042-2	—	—
24 AWG [0.2 mm²]	2	.200 [5.08]	641238-2	644020-2	—	—
	3	.300 [7.62]	641238-3	644020-3	—	—
	4	.400 [10.16]	641238-4	644020-4	—	—
	5	.500 [12.7]	641238-5	644020-5	—	—
	6	.600 [15.24]	641238-6	—	—	—
	7	.700 [17.78]	641238-7	—	—	—
	8	.800 [20.32]	641238-8	—	—	—
	24 AWG [0.2 mm²]	2	.200 [5.08]	641239-2	644043-2	—
3		.300 [7.62]	641239-3	644043-3	—	—
5		.500 [12.7]	—	644043-5	—	—
Standard UL94V-2, .000015 [0.00038] Gold Plated						
22 AWG [0.3-0.4 mm²]	2	.200 [5.08]	641190-2	644038-2	—	—
	3	.300 [7.62]	641190-3	—	—	—
	4	.400 [10.16]	641190-4	—	—	—
	5	.500 [12.7]	641190-5	—	—	—
	6	.600 [15.24]	641190-6	—	—	—
	7	.700 [17.78]	641190-7	—	—	—
	8	.800 [20.32]	641190-8	—	—	—
	10	1.00 [25.4]	641190-0	—	—	—
	12	1.200 [30.48]	641190-2	—	—	—
	15	15.00 [38.1]	641190-5	—	—	—
24 AWG [0.2 mm²]	2	.200 [5.08]	641191-2	—	—	—
	3	.300 [7.62]	641191-3	—	—	—
	4	.400 [10.16]	641191-4	—	—	—
	6	.600 [15.24]	641191-6	—	—	—
26 AWG [0.12-0.15 mm²]	2	.200 [5.08]	641192-2	—	—	—
	3	.300 [7.62]	641192-3	—	—	—
	5	.500 [12.7]	641192-5	—	—	—
	10	1.00 [25.4]	1-641192-0	—	—	—
	16	1.600 [40.64]	1-641192-6	—	—	—
LED, UL94V-2, Tin Plated						
22 AWG [0.3-0.4 mm²]	2	.200 [5.08]	641534-2	—	—	—
	3	.300 [7.62]	641534-3	—	—	—
24 AWG [0.2 mm²]	2	.200 [5.08]	641353-2	—	641654-2	—
26 AWG [0.12-0.15 mm²]	2	.200 [5.08]	641536-2	—	—	—
	3	.300 [7.62]	641536-3	—	—	—
Standard UL94V-0, Tin Plated (Gold is available, minimums may apply.)						
22 AWG [0.3-0.4 mm²]	2	.200 [5.08]	—	644083-2	—	—
	3	.300 [7.62]	—	644083-3	—	—
	6	.600 [15.24]	—	644083-6	—	—
	13	1.300 [33.02]	—	1-644083-3	—	—
24 AWG [0.2 mm²]	2	.200 [5.08]	—	644312-2	—	—

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-100 IDC Connector Accessories

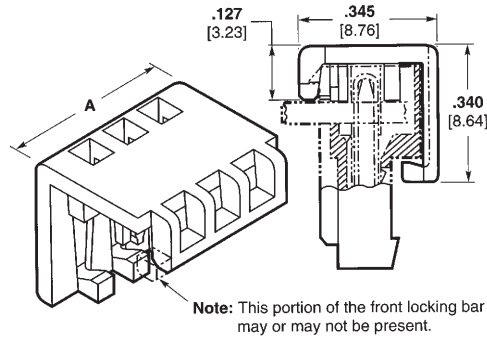
Material:

Strain Relief Cover—UL94V-2 rated, nylon, white

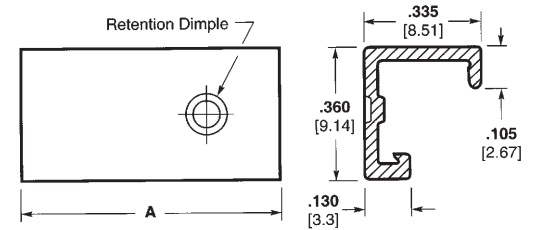
Dust Covers—UL94V-0 rated, polyester, white

Printed Circuit Board Connectors (Continued)

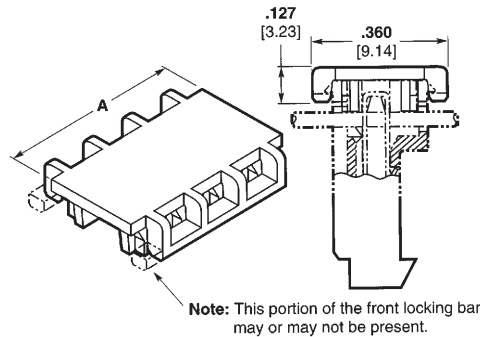
Closed End Strain Relief Covers



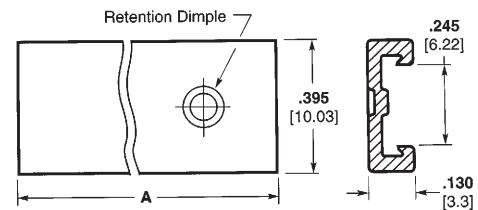
Closed End Dust Covers



Feed-Thru Strain Relief Covers



Feed-Thru Dust Covers



No. of Circuits	Dim. A	Closed End		Feed-Thru	
		Strain Relief Covers	Dust Covers	Strain Relief Covers	Dust Covers
2	.200 [5.08]	643075-2	1-640550-2	643077-2	—
3	.300 [7.62]	643075-3	1-640550-3	643077-3	—
4	.400 [10.16]	643075-4	1-640550-4	643077-4	—
5	.500 [12.7]	643075-5	1-640550-5	643077-5	—
6	.600 [15.24]	643075-6	1-640550-6	643077-6	640642-6
7	.700 [17.78]	643075-7	1-640550-7	643077-7	—
8	.800 [20.32]	643075-8	1-640550-8	643077-8	640642-8
9	.900 [22.86]	643075-9	1-640550-9	—	—
10	1.00 [25.4]	1-643075-0	1-640550-0	1-643077-0	—
11	1.100 [27.94]	1-643075-1	1-640550-1	—	—
12	1.200 [30.48]	1-643075-2	1-640550-2	—	—
13	1.300 [33.02]	1-643075-3	1-640550-3	—	—
14	1.400 [35.56]	1-643075-4	1-640550-4	—	—
15	1.500 [38.1]	1-643075-5	1-640550-5	—	—
16	1.600 [40.64]	1-643075-6	1-640550-6	—	—
17	1.700 [43.18]	1-643075-7	—	—	—
18	1.800 [45.72]	1-643075-8	—	—	—
20	2.000 [50.8]	2-643075-0	2-640550-0	—	—
24	2.400 [60.96]	2-643075-4	—	—	—

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

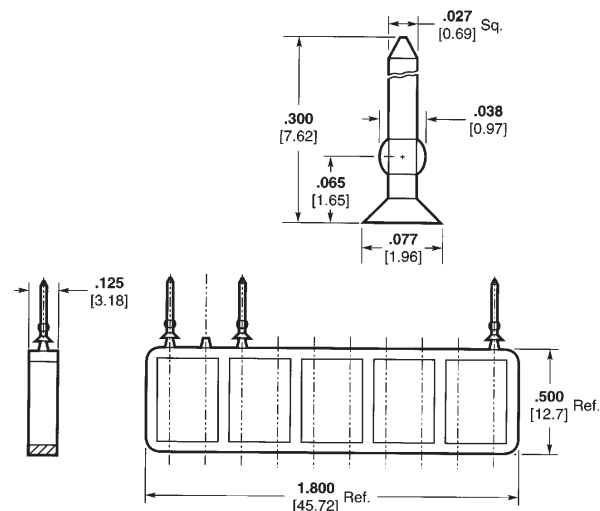
MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-100 IDC Connector Accessories

Keying Plug with Carrier Strip (10 plugs per strip) Part Number: 641994-1

Material:

UL94V-2 rated, type 6/6 nylon, natural color



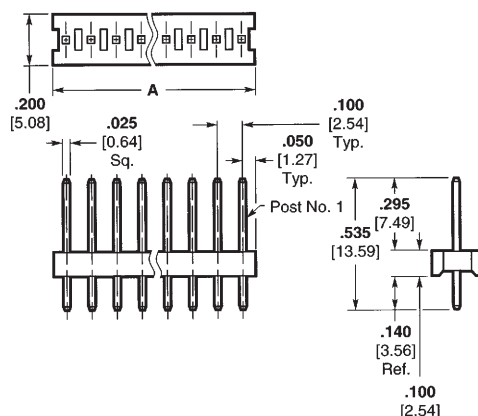
MTA-100 Flat Headers—Straight and Right Angle

Material and Finish:

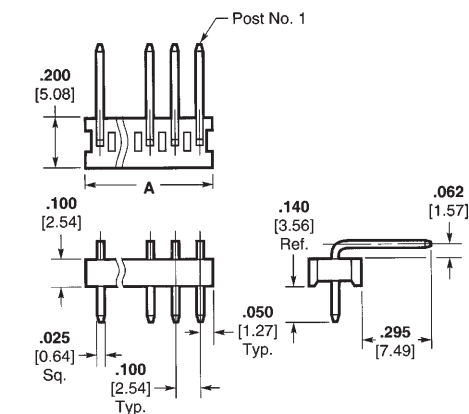
Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Straight Post (.025 [0.64] Square)



Right Angle Post (.025 [0.64] Square)



No. of Circuits	Dim. A	Straight Posts Header Part No.	Right Angle Posts Header Part No.
2	.200 [5.08]	640452-2	640453-2
3	.300 [7.62]	640452-3	640453-3
4	.400 [10.16]	640452-4	640453-4
5	.500 [12.7]	640452-5	640453-5
6	.600 [15.24]	640452-6	640453-6
7	.700 [17.78]	640452-7	640453-7
8	.800 [20.32]	640452-8	640453-8
9	.900 [22.86]	—	640453-9
10	1.00 [25.4]	1-640452-0	1-640453-0
12	1.200 [30.48]	—	1-640453-2
16	1.600 [40.64]	—	1-640453-6

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

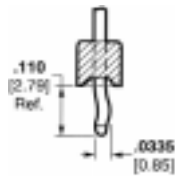
MTA-100 Narrow Flat Headers—Straight and Right Angle

Material and Finish:

Housing—UL94V-0 rated, polyester, white

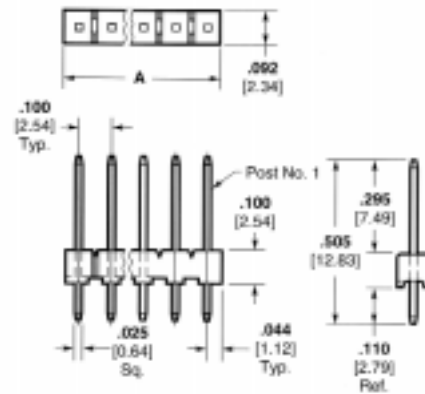
Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Straight and Right Angle Post with Retentive Legs

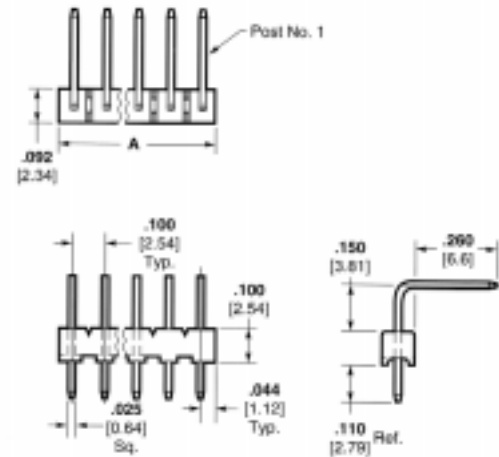


Printed Circuit Board Connectors (Continued)

Straight Post (.025 [0.64] Square)



Right Angle Post (.025 [0.64] Square)



No. of Circuits	Dim. A	Straight Posts		Right Angle Posts	
		Without Retentive Legs Header Part No.	With Retentive Legs Header Part No.	Without Retentive Legs Header Part No.	With Retentive Legs Header Part No.
2	.188 [4.78]	644456-2	—	644457-2	—
3	.288 [7.32]	644456-3	—	—	—
4	.388 [9.86]	644456-4	—	—	—
5	.488 [12.40]	644456-5	—	—	—
6	.588 [14.94]	644456-6	—	—	—
7	.688 [17.48]	—	—	644457-7	—
8	.788 [20.02]	—	—	—	644694-8
12	1.188 [30.18]	—	1-644695-2	—	—
14	1.388 [35.26]	1-644456-4	—	—	—
16	1.588 [40.34]	1-644456-6	—	—	—

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

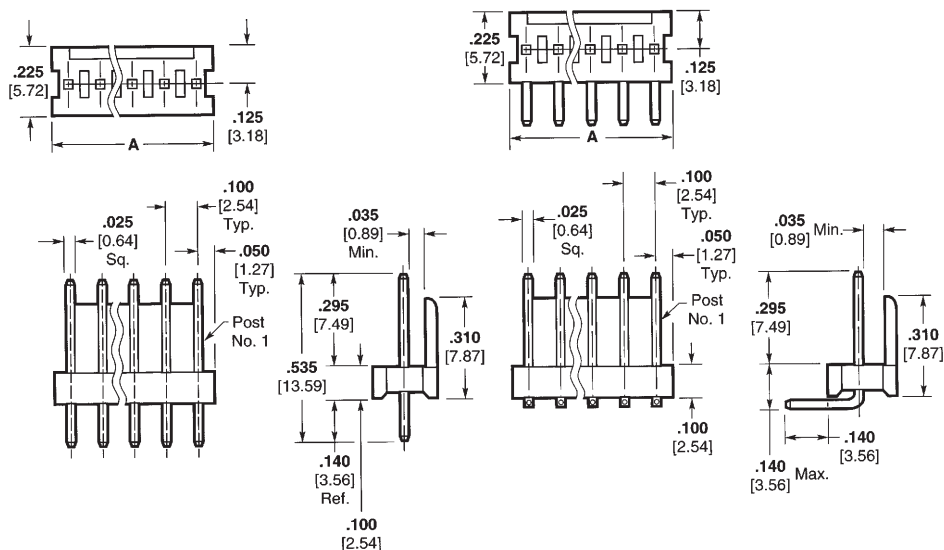
MTA-100 Polarized Headers— Straight and Right Angle

Material and Finish:

Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Printed Circuit Board Connectors (Continued)



No. of Circuits	Dim. A	Straight Posts Header Part No.	Right Angle Posts Header Part No.
Standard UL94V-0, Tin Plated			
2	.200 [5.08]	640454-2	640455-2
3	.300 [7.62]	640454-3	640455-3
4	.400 [10.16]	640454-4	640455-4
5	.500 [12.7]	640454-5	640455-5
6	.600 [15.24]	640454-6	640455-6
7	.700 [17.78]	640454-7	—
8	.800 [20.32]	640454-8	1-640455-8
9	.900 [22.86]	640454-9	—
10	1.00 [25.4]	1-640454-0	1-640455-0
11	1.100 [27.94]	1-640454-1	—
12	1.200 [30.48]	1-640454-2	1-640455-2
13	1.300 [33.02]	1-640454-3	—
14	1.400 [35.56]	1-640454-4	—
15	1.500 [38.1]	1-640454-5	—
16	1.600 [40.64]	1-640454-6	—
20	2.000 [50.8]	2-640454-0	—
Standard UL94V-0, .000030 [0.00076] Gold Plated			
2	.200 [5.08]	641213-2	—

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-100 Friction Lock Headers—Straight and Right Angle

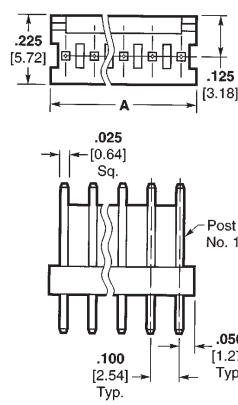
Material and Finish:

Housing—UL94V-0 rated, polyester, white

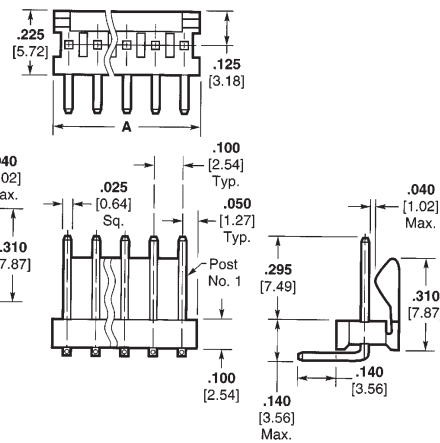
Posts—Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Printed Circuit Board Connectors (Continued)

Straight Post (.025 [0.64] Square)



Right Angle Post (.025 [0.64] Square)



No. of Circuits	Dim. A	Straight Posts Header Part No.	Right Angle Posts Header Part No.
Standard UL94V-0, Tin Plated			
2	.200 [5.08]	640456-2	1-640457-2
3	.300 [7.62]	640456-3	1-640457-3
4	.400 [10.16]	640456-4	1-640457-4
5	.500 [12.7]	640456-5	1-640457-5
6	.600 [15.24]	640456-6	1-640457-6
7	.700 [17.78]	640456-7	1-640457-7
8	.800 [20.32]	640456-8	1-640457-8
9	.900 [22.86]	640456-9	1-640457-9
10	1.00 [25.4]	1-640456-0	1-640457-0
11	1.100 [27.94]	1-640456-1	1-640457-0
12	1.200 [30.48]	1-640456-2	1-640457-2
13	1.300 [33.02]	1-640456-3	1-640457-3
14	1.400 [35.56]	1-640456-4	1-640457-4
15	1.500 [38.1]	1-640456-5	1-640457-5
16	1.600 [40.64]	1-640456-6	1-640457-6
17	1.700 [43.18]	1-640456-7	—
18	1.800 [45.72]	1-640456-8	—
20	2.000 [50.8]	2-640456-0	2-640457-0
22	2.200 [55.88]	2-640456-2	—
24	2.400 [60.96]	2-640456-4	—
Standard UL94V-0, .000030 [0.00076] Gold Plated			
2	.200 [5.08]	641215-2	641216-2
3	.300 [7.62]	641215-3	641216-3
4	.400 [10.16]	641215-4	641216-4
5	.500 [12.7]	641215-5	641216-5
6	.600 [15.24]	641215-6	—
7	.700 [17.78]	641215-7	641216-7
8	.800 [20.32]	641215-8	—
9	.900 [22.86]	641215-9	—
10	1.00 [25.4]	1-641215-0	—
12	1.200 [30.48]	1-641215-2	—
14	1.400 [35.56]	1-641215-4	—
16	1.600 [40.64]	1-641215-6	—
24	2.400 [60.96]	2-641215-4	—

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-100 Friction Lock Headers—Straight and Right Angle (continued)

Printed Circuit Board Connectors (Continued)

No. of Circuits	Dim. A	<u>Straight Posts</u> Header Part No.	<u>Right Angle Posts</u> Header Part No.
Standard UL94V-0, .000015 [0.00038] Gold Plated			
2	.200 [5.08]	641126-2	—
3	.300 [7.62]	641126-3	641127-3
4	.400 [10.16]	641126-4	641127-4
5	.500 [12.7]	641126-5	641127-5
6	.600 [15.24]	641126-6	—
7	.700 [17.78]	641126-7	—
8	.800 [20.32]	641126-8	—
9	.900 [22.86]	641126-9	—
10	1.00 [25.4]	1-641126-0	—
12	1.200 [30.48]	1-641126-2	—
14	1.400 [35.56]	1-641126-4	—
24	2.400 [60.96]	2-641126-4	—

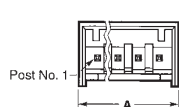
MTA-100 Shrouded Headers—Straight and Right Angle

Material and Finish:

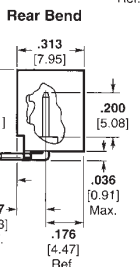
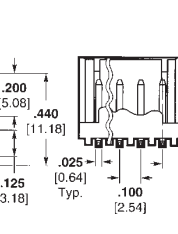
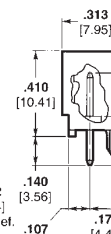
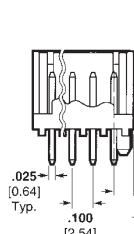
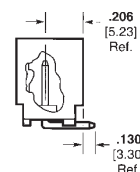
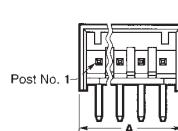
Housing—UL94V-0 rated, polyester, white

Posts—Copper alloy, tin plated; or .000030 [0.00076] gold over nickel

Straight Post (.025 [0.64] Square)



Right Angle (.025 [0.64] Square)



No. of Circuits	Dim. A	Straight Posts	Right Angle Posts	
		With Pegs	Front Bend	Rear Bend
			Without Pegs	
		Header Part No.	Header Part No.	Header Part No.
Standard UL94V-0, Tin Plated				
2	.284 [7.21]	644486-2	—	—
3	.384 [9.75]	644486-3	—	644803-3
4	.484 [12.29]	644486-4	—	—
5	.584 [14.83]	644486-5	644488-5	—
6	.684 [17.37]	644486-6	—	—
8	.884 [22.45]	644486-8	—	—
9	.984 [24.99]	644486-9	—	—
10	1.084 [27.53]	1-644486-0	—	—
12	1.284 [32.61]	1-644486-2	—	—
Standard UL94V-0, .000030 [0.00076] Gold Plated				
2	.284 [7.21]	644487-2	—	—
3	.384 [9.75]	644487-3	—	—

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

.100 [2.54] Centerline CST-100 Crimp Contacts

Material and Finish:

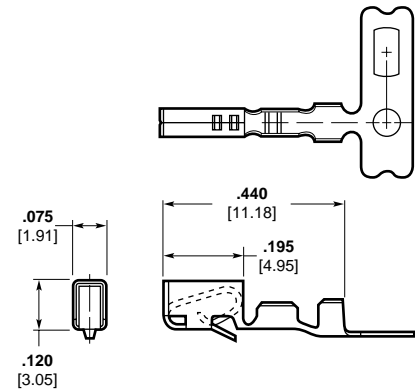
Phosphor bronze, pretinned or .000030 [0.00076] gold over nickel

Wire Range—22-26 AWG
[0.4-0.12 mm²]

Max. Ins. Dia.—.065 [1.65]

Printed Circuit Board Connectors (Continued)

Part Numbers	
Tin Plated	Gold Plated
770601-1 (Strip)	770601-2 (Strip)
770666-1 (Loose Piece)	770666-2 (Loose Piece)

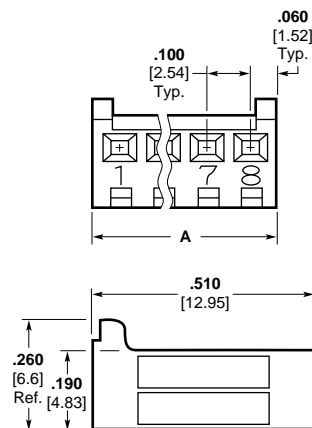


.100 [2.54] Centerline CST-100 Housings

Material and Finish:

UL94V-0 rated, type 6/6 nylon, white

No. of Pos.	Dim. A	Part Numbers
2	.220 5.59	770602-2
3	.320 8.13	770602-3
4	.420 10.67	770602-4
5	.520 13.21	770602-5
6	.620 15.75	770602-6
7	.720 18.29	770602-7
8	.820 20.83	770602-8
9	.920 23.37	770602-9
10	1.020 25.91	1-770602-0
12	1.220 30.99	1-770602-2
13	1.320 33.53	1-770602-3
14	1.420 36.07	1-770602-4
15	1.520 38.61	1-770602-5
16	1.620 41.15	1-770602-6
18	1.820 46.23	1-770602-8



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 IDC Connectors — Closed End

Material and Finish

Housing — UL94V-2 rated, type 6/6 or 6/12 nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts — Phosphor bronze, post tin plated, .000030 [0.00076] or .000015 [0.00038] post gold plated over nickel

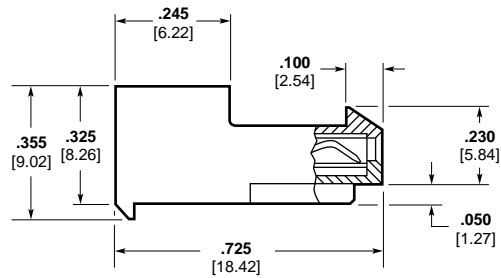
Color Coding by Wire Size for UL94V-2 Connectors

26 AWG — Blue
24 AWG — White
22 AWG — Red
20 AWG — Yellow
18 AWG — Orange

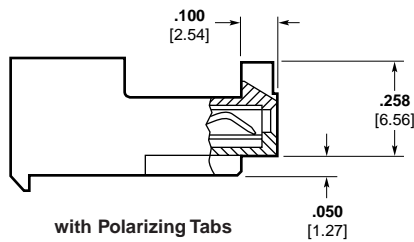
All Wire Sizes in UL94V-0 — Black

Printed Circuit Board Connectors (Continued)

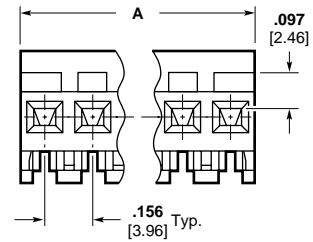
Closed End with Locking Ramp



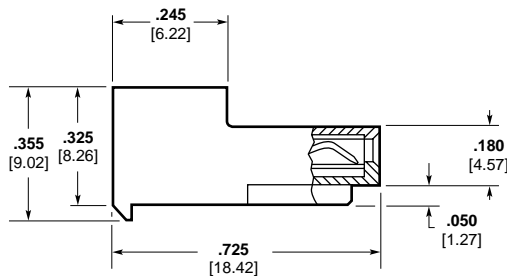
without Polarizing Tabs



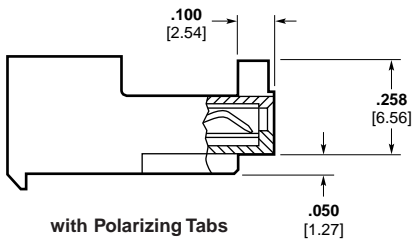
with Polarizing Tabs



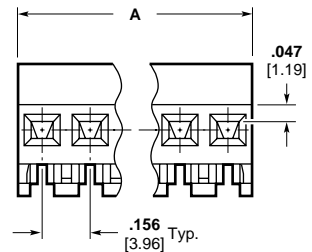
Closed End without Locking Ramp



without Polarizing Tabs



with Polarizing Tabs



For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156
Connectors and Headers;
CST-100 Connectors and
Headers and SL-156
Connectors

MTA-156 IDC Connectors —
Closed End (continued)

Printed Circuit Board Connectors (Continued)

Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End with Locking Ramp		Closed End without Locking Ramp		
			Without Tabs	With Tabs	Without Tabs	With Tabs	
			Part Nos.	Part Nos.	Part Nos.	Part Nos.	
Standard UL94V-2, Tin Plated							
18 AWG [0.8-0.9 mm ²]	2	.312 [7.92]	640426-2	643817-2	640431-2	—	
	3	.468 [11.89]	640426-3	643817-3	640431-3	—	
	4	.624 [15.85]	640426-4	643817-4	640431-4	—	
	5	.780 [19.81]	640426-5	643817-5	640431-5	—	
	6	.936 [23.77]	640426-6	643817-6	640431-6	—	
	7	1.092 [27.74]	640426-7	643817-7	640431-7	—	
	8	1.248 [31.7]	640426-8	643817-8	640431-8	—	
	9	1.404 [35.66]	640426-9	643817-9	640431-9	—	
	10	1.560 [39.62]	1-640426-0	1-643817-0	1-640431-0	—	
	11	1.716 [43.59]	1-640426-1	—	1-640431-1	—	
	12	1.872 [47.55]	1-640426-2	1-643817-2	1-640431-2	—	
	13	2.028 [51.51]	1-640426-3	1-643817-3	1-640431-3	—	
	14	2.184 [55.47]	1-640426-4	1-643817-4	1-640431-4	—	
	15	2.340 [59.44]	1-640426-5	—	—	—	
	16	2.496 [63.4]	1-640426-6	—	—	—	
	17	2.652 [67.36]	—	—	—	—	
	18	2.808 [71.32]	1-640426-8	1-643817-8	—	—	
	20 AWG [0.5-0.6 mm ²]	2	.312 [7.92]	640427-2	643818-2	1-640432-2	—
3		.468 [11.89]	640427-3	643818-3	1-640432-3	—	
4		.624 [15.85]	640427-4	643818-4	1-640432-4	—	
5		.780 [19.81]	640427-5	643818-5	1-640432-5	—	
6		.936 [23.77]	640427-6	643818-6	1-640432-6	644462-6	
7		1.092 [27.74]	640427-7	—	—	—	
8		1.248 [31.7]	640427-8	—	—	—	
9		1.404 [35.66]	640427-9	—	—	—	
10		1.560 [39.62]	1-640427-0	—	1-640432-0	—	
12		1.872 [47.55]	1-640427-2	—	1-640432-2	—	
15		2.340 [59.44]	1-640427-5	—	—	—	
2		.312 [7.92]	640428-2	643819-2	640433-2	—	
3		.468 [11.89]	640428-3	643819-3	640433-3	—	
4		.624 [15.85]	640428-4	643819-4	640433-4	—	
5		.780 [19.81]	640428-5	643819-5	640433-5	—	
22 AWG [0.3-0.4 mm ²]	6	.936 [23.77]	640428-6	643819-6	640433-6	—	
	7	1.092 [27.74]	640428-7	643819-7	640433-7	—	
	8	1.248 [31.7]	640428-8	643819-8	640433-8	—	
	9	1.404 [35.66]	640428-9	—	640433-9	—	
	10	1.560 [39.62]	1-640428-0	—	1-640433-0	—	
	12	1.872 [47.55]	1-640428-2	1-643819-2	1-640433-2	—	
	13	2.028 [51.51]	—	1-643819-3	—	—	
	14	2.184 [55.47]	1-640428-4	—	—	—	
	15	2.340 [59.44]	1-640428-5	—	—	—	
	17	2.652 [67.36]	—	—	1-640433-7	—	
	24 AWG [0.2 mm ²]	2	.312 [7.92]	640429-2	643820-2	—	—
		3	.468 [11.89]	640429-3	643820-3	—	—
4		.624 [15.85]	640429-4	643820-4	—	—	
5		.780 [19.81]	640429-5	—	—	—	
6		.936 [23.77]	640429-6	—	—	—	
7		1.092 [27.74]	640429-7	—	640434-7	—	
8		1.248 [31.7]	640429-8	—	—	—	
9		1.404 [35.66]	640429-9	—	—	—	
10		1.560 [39.62]	1-640429-0	—	—	—	
12		1.872 [47.55]	1-640429-2	—	—	—	

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156
Connectors and Headers;
CST-100 Connectors and
Headers and SL-156
Connectors

MTA-156 IDC Connectors —
Closed End (continued)

Printed Circuit Board Connectors (Continued)

Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End with Locking Ramp		Closed End without Locking Ramp	
			Without Tabs	With Tabs	Without Tabs	With Tabs
			Part Nos.	Part Nos.	Part Nos.	Part Nos.
Tape Mounted on Reel UL94V-2, Tin Plated						
20 AWG [0.5-0.6 mm ²]	2	.312 [7.92]	640473-2	—	—	—
Standard UL94V-2, .000030 [0.00076] Gold Plated						
18 AWG [0.8-0.9 mm ²]	2	.312 [7.92]	641217-2	644460-2	—	—
	3	.468 [11.89]	641217-3	644460-3	—	—
	4	.624 [15.85]	641217-4	644460-4	—	—
	5	.780 [19.81]	641217-5	644460-5	—	—
	6	.936 [23.77]	641217-6	644460-6	—	—
	9	1.404 [35.66]	641217-9	—	—	—
20 AWG [0.5-0.6 mm ²]	12	1.872 [47.55]	—	1-644460-2	—	—
	4	.624 [15.85]	641218-4	—	640433-4	—
22 AWG [0.3-0.4 mm ²]	6	.936 [23.77]	—	644663-6	640433-6	—
	2	.312 [7.92]	641219-2	—	—	—
22 AWG [0.3-0.4 mm ²]	3	.468 [11.89]	641219-3	—	—	—
	4	.624 [15.85]	641219-4	—	—	—
Standard UL94V-2, .000015 [0.00038] Gold Plated						
18 AWG [0.8-0.9 mm ²]	4	.624 [15.85]	641148-4	—	—	—
	8	1.248 [31.7]	641148-8	—	—	—
	9	1.404 [35.66]	641148-9	—	—	—

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 IDC Connectors — Feed-Thru

Material and Finish

Housing — UL94V-2 rated, type 6/6 or 6/12 nylon, see below for color; or UL94V-0 rated, nylon, black

Contacts — Phosphor bronze; post tin plated, .000030 [.00076] or .000015 [.00038] post gold plated over nickel

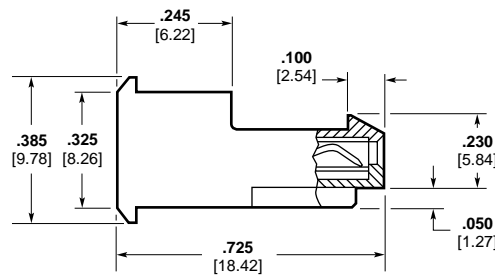
Color Coding by Wire Size for UL94V-2 Connectors

26 AWG — Blue
24 AWG — White
22 AWG — Red
20 AWG — Yellow
18 AWG — Orange

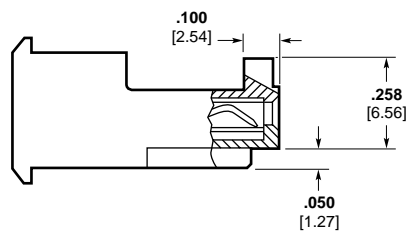
All Wire Sizes in UL94V-0 — Black

Printed Circuit Board Connectors (Continued)

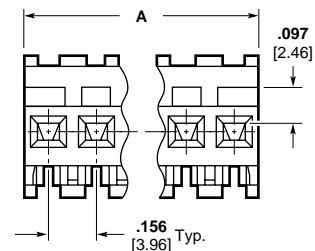
Feed-Thru with Locking Ramp



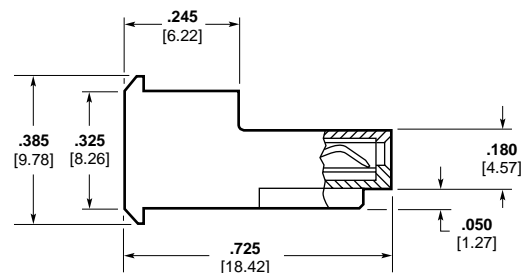
without Polarizing Tabs



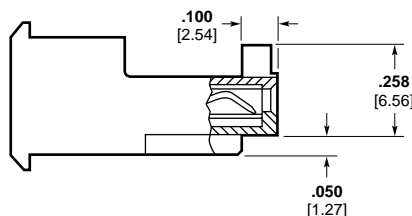
with Polarizing Tabs



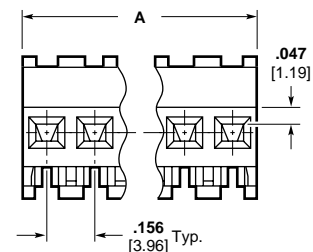
Feed-Thru without Locking Ramp



without Polarizing Tabs



with Polarizing Tabs



For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156
Connectors and Headers;
CST-100 Connectors and
Headers and SL-156
Connectors

MTA-156 IDC Connectors —
Feed-Thru (continued)

Printed Circuit Board Connectors (Continued)

Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End with Locking Ramp	Closed End without Locking Ramp
			Without Tabs	Without Tabs
			Part Nos.	Part Nos.
Standard UL94V-2, Tin Plated				
18 AWG [0.8-0.9 mm²]	2	.312 [7.92]	640599-2	—
	3	.468 [11.89]	640599-3	—
	4	.624 [15.85]	640599-4	—
	5	.780 [19.81]	640599-5	640604-5
	6	.936 [23.77]	640599-6	640604-6
	8	1.248 [31.7]	640599-8	—
	9	1.404 [35.66]	640599-9	640604-9
	10	1.560 [39.62]	1-640599-0	—
	13	2.028 [51.51]	1-640599-3	—
	14	2.184 [55.47]	1-640599-4	1-640604-4
20 AWG [0.5-0.6 mm²]	2	.312 [7.92]	640600-2	—
	3	.468 [11.89]	640600-3	—
	4	.624 [15.85]	640600-4	—
	6	.936 [23.77]	640600-6	—
	9	1.404 [35.66]	640600-9	—
22 AWG [0.3-0.4 mm²]	2	.312 [7.92]	640601-2	—
	3	.468 [11.89]	640601-3	—
	4	.624 [15.85]	640601-4	640606-4
	5	.780 [19.81]	640601-5	—
	6	.936 [23.77]	640601-6	—
	8	1.248 [31.7]	640601-8	—
	9	1.404 [35.66]	640601-9	—
	10	1.560 [39.62]	1-640601-0	—
24 AWG [0.2 mm²]	14	2.184 [55.47]	1-640602-4	—
Standard UL94V-2, Tin Plated				
18 AWG [0.8-0.9 mm²]	6	.936 [23.77]	641168-6	—

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 Connector Accessories

Closed End Covers

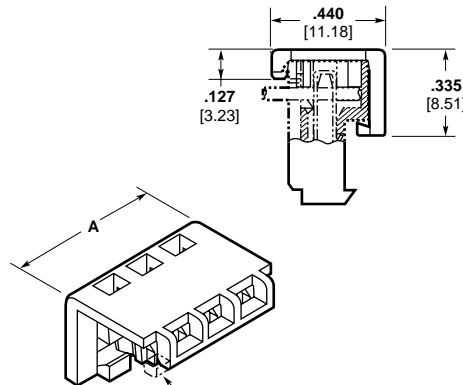
Material

Strain Relief Covers — UL94V-2
rated, nylon, white

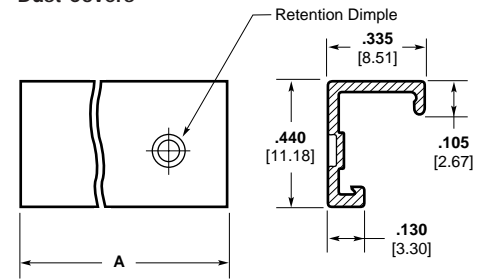
Dust Covers — UL94V-0 rated,
polyester, white

Printed Circuit Board Connectors (Continued)

Strain Relief Covers



Dust Covers



No. of Circuits	Dim. A	Closed End		Feed-Thru	
		Strain Relief Covers	Dust Covers	Strain Relief Covers	Dust Covers
		Part Nos.	Part Nos.	Part Nos.	Part Nos.
2	.312 [7.92]	643067-2	640551-2	643071-2	—
3	.468 [11.89]	643067-3	640551-3	643071-3	640643-3
4	.624 [15.85]	643067-4	640551-4	643071-4	640643-4
5	.780 [19.81]	643067-5	640551-5	643071-5	640643-5
6	.936 [23.77]	643067-6	640551-6	643071-6	640643-6
7	1.092 [27.74]	643067-7	640551-7	—	—
8	1.248 [31.7]	643067-8	640551-8	—	—
9	1.404 [35.66]	643067-9	640551-9	643071-9	—
10	1.560 [39.62]	1-643067-0	1-640551-0	1-643071-0	—
11	1.716 [43.59]	1-643067-1	1-640551-1	—	—
12	1.872 [47.55]	1-643067-2	1-640551-2	1-643071-2	—
13	2.028 [51.51]	1-643067-3	1-640551-3	1-643071-3	—
14	2.184 [55.47]	1-643067-4	1-640551-4	—	—
15	2.340 [59.44]	1-643067-5	—	1-643071-5	—
18	2.808 [71.32]	1-643067-8	—	1-643071-8	—
22	3.432 [87.17]	643067-2	—	—	—

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 Connector Accessories

Keying Plugs

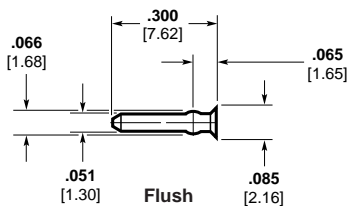
Material

UL94V-2 rated, type 6/6 nylon, natural color

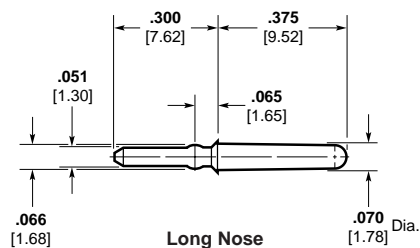
Printed Circuit Board Connectors (Continued)

Loose Piece

Part No. 640629-1 (Flush)
Used with keyed headers

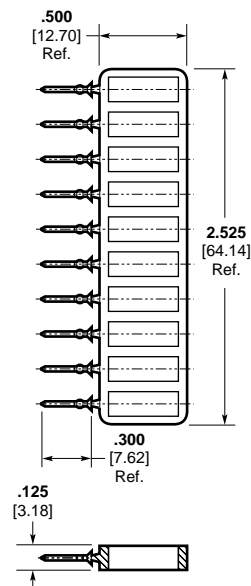


Part No. 640630-1 (Long Nose)



On Carrier Strip

Part No. 641623-1 (Flush)
(10 per strip)

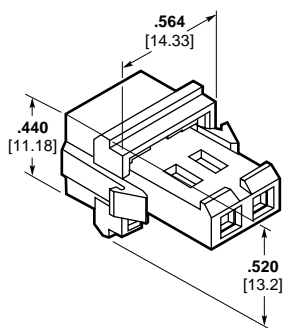


Panel Mount End Caps

Part No. 641440-1
(2-position only)

Material

UL94V-2 rated, nylon, black



Two-Position Only
641533-1

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 IDC Posted Connectors (Wire-to-Wire) — Closed End, Feed-Thru

Material and Finish

Housing — UL94V-2 rated, 6/6, 6/12 nylon, see chart for color

Contacts — Copper alloy, post tin or .000030 [.00076] plated over nickel

Color Coding by Wire Size For UL94V-0 Connectors

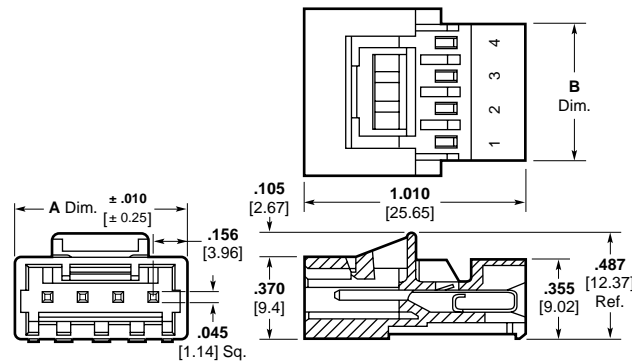
24 AWG — White

22 AWG — Red

20 AWG — Yellow

18 AWG — Orange

Printed Circuit Board Connectors (Continued)



Connector Type & Wire Size	No. of Circuits	Dim. A	Dim. B	Closed End Connector Part Nos.
Standard UL94V-2, Tin Plated				
18 AWG [0.8-0.9 mm ²]	2	.468 [11.89]	.316 [8.03]	641435-2
	3	.624 [15.85]	.472 [11.99]	641435-3
	4	.780 [19.81]	.628 [15.95]	641435-4
	6	1.092 [27.74]	.940 [23.88]	641435-5
	12	2.028 [51.51]	1.876 [47.65]	1-641435-2
20 AWG [0.5-0.6 mm ²]	4	.780 [19.81]	.628 [15.95]	641436-4
22 AWG [0.3-0.4 mm ²]	2	.468 [11.89]	.316 [8.03]	641437-2
	3	.624 [15.85]	.472 [11.99]	641437-3
	4	.780 [19.81]	.628 [15.95]	641437-4
	6	1.092 [27.74]	.940 [23.88]	641437-5
	12	2.028 [51.51]	1.876 [47.65]	1-641437-2
24 AWG [0.2 mm ²]	2	.468 [11.89]	.316 [8.03]	641438-2
	4	.780 [19.81]	.628 [15.95]	641438-4

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 Flat Headers — Straight .125 [3.18] Soldertail

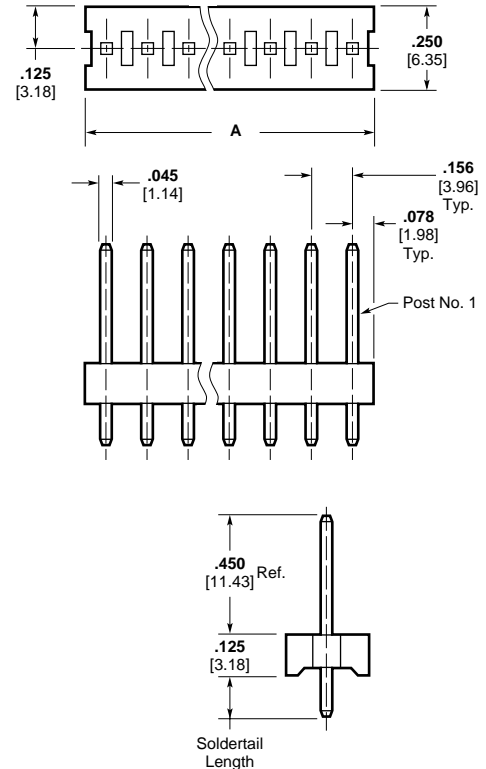
Material and Finish

Housing — UL94V-0 rated, polyester, white

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Printed Circuit Board Connectors (Continued)

No. of Posts	Dim. A	Square Posts Header Part Nos.	Round Posts Header Part Nos.
Standard UL94V-0, Tin Plated			
2	.312 [7.92]	640383-2	—
3	.468 [11.89]	640383-3	—
4	.624 [15.85]	640383-4	640384-4
5	.780 [19.81]	640383-5	640384-5
6	.936 [23.77]	640383-6	—
7	1.092 [27.74]	640383-7	—
8	1.248 [31.7]	640383-8	—
9	1.404 [35.66]	640383-9	—
10	1.560 [39.62]	1-640383-0	—
11	1.716 [43.59]	1-640383-1	—
12	1.872 [47.55]	1-640383-2	—
13	2.028 [51.51]	1-640383-3	—
14	2.184 [55.47]	1-640383-4	—
15	2.340 [59.44]	1-640383-5	—
16	2.496 [63.4]	1-640383-6	—



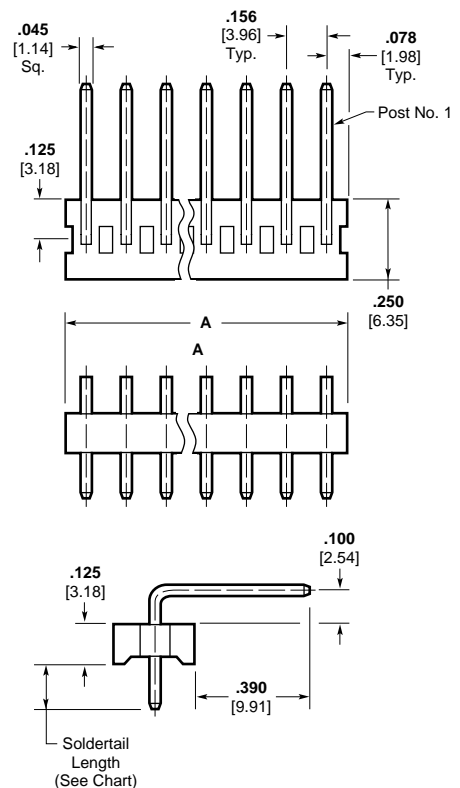
MTA-156 Flat Headers — Right Angle .125 [3.18] Soldertail

Material and Finish

Housing — UL94V-0 rated, polyester, white

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

No. of Posts	Dim. A	Square Posts Header Part Nos.
Standard UL94V-0, Tin Plated		
2	.312 [7.92]	640385-2
3	.468 [11.89]	640385-3
4	.624 [15.85]	640385-4
5	.780 [19.81]	640385-5
6	.936 [23.77]	640385-6
7	1.092 [27.74]	640385-7
8	1.248 [31.7]	640385-8
9	1.404 [35.66]	640385-9
10	1.560 [39.62]	1-640385-0
11	1.716 [43.59]	1-640385-1
12	1.872 [47.55]	1-640385-2



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 Friction Lock Headers — Straight .125 [3.18] Solder Tail

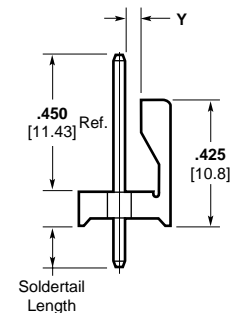
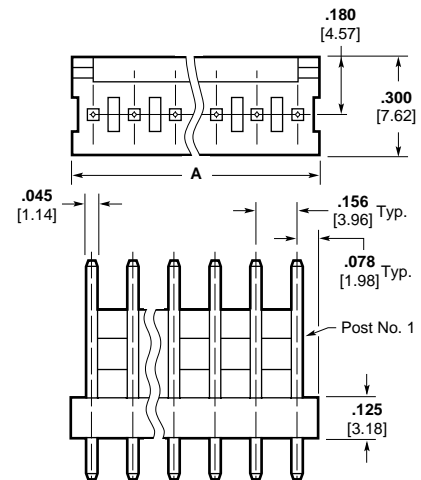
Material and Finish

Housing — UL94V-0 rated, polyester, white

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

Printed Circuit Board Connectors (Continued)

No. of Posts	Dim. A	Square Posts Header Part Nos.	Round Posts Header Part Nos.
Standard UL94V-0, Tin Plated			
2	.312 [7.92]	640445-2	640388-2
3	.468 [11.89]	640445-3	640388-3
4	.624 [15.85]	640445-4	640388-4
5	.780 [19.81]	640445-5	640388-5
6	.936 [23.77]	640445-6	640388-6
7	1.092 [27.74]	640445-7	640388-7
8	1.248 [31.7]	640445-8	640388-8
9	1.404 [35.66]	640445-9	640388-9
10	1.560 [39.62]	1-640445-0	1-640388-0
11	1.716 [43.59]	1-640445-1	1-640388-1
12	1.872 [47.55]	1-640445-2	1-640388-2
13	2.028 [51.51]	1-640445-3	—
14	2.184 [55.47]	1-640445-4	1-640388-4
15	2.340 [59.44]	1-640445-5	1-640388-5
16	2.496 [63.4]	1-640445-6	—
18	2.808 [71.32]	1-640445-6	1-640388-8
20	3.120 [79.25]	2-640445-0	2-640388-0
Standard UL94V-0, .000030 [0.00076] Gold Plated			
2	.312 [7.92]	641208-2	—
3	.468 [11.89]	641208-3	—
4	.624 [15.85]	641208-4	—
5	.780 [19.81]	641208-5	—
6	.936 [23.77]	641208-6	—
7	1.092 [27.74]	641208-7	—
8	1.248 [31.7]	641208-8	—
9	1.404 [35.66]	641208-9	—
10	1.560 [39.62]	1-641208-0	—
11	1.716 [43.59]	1-641208-1	—
12	1.872 [47.55]	1-641208-2	—
13	2.028 [51.51]	1-641208-3	—
Standard UL94V-0, .000015 [0.00038] Gold Plated			
2	.312 [7.92]	641119-2	—
3	.468 [11.89]	641119-3	—
4	.624 [15.85]	641119-4	—
6	.936 [23.77]	641119-6	—
8	1.248 [31.7]	641119-8	—
10	1.560 [39.62]	1-641119-0	—



Y = .068 [1.73] 2-8 position tin plated and 2-24 position gold plated headers.

Y = .073 [1.85] 9-24 position tin plated headers.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

MTA-156 Friction Lock Headers — Right Angle .125 [3.18] Solder Tail

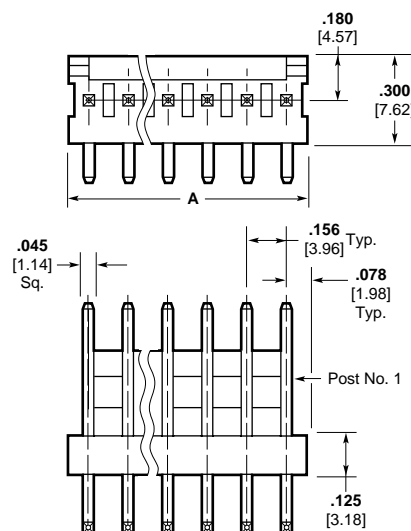
Material and Finish

Housing — UL94V-0 rated, polyester, white

Posts — Copper alloy, tin plated, .000030 [0.00076] or .000015 [0.00038] gold over nickel

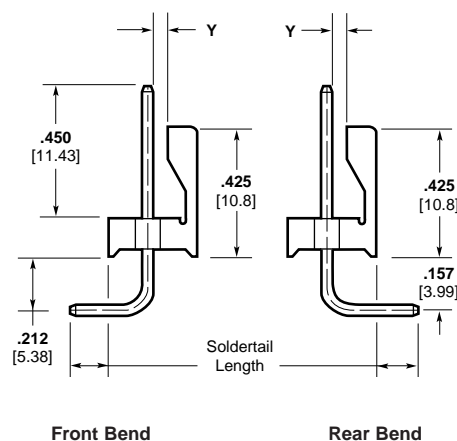
Printed Circuit Board Connectors (Continued)

No. of Posts	Dim. A	Front Bend Header Part Nos.	Rear Bend Header Part Nos.
Standard UL94V-0, Tin Plated			
2	.312 [7.92]	640389-2	640387-2
3	.468 [11.89]	640389-3	640387-3
4	.624 [15.85]	640389-4	640387-4
5	.780 [19.81]	640389-5	640387-5
6	.936 [23.77]	640389-6	640387-6
7	1.092 [27.74]	640389-7	640387-7
8	1.248 [31.7]	640389-8	640387-8
9	1.404 [35.66]	640389-9	—
10	1.560 [39.62]	1-640389-0	1-640387-0
11	1.716 [43.59]	1-640389-1	—
12	1.872 [47.55]	1-640389-2	1-640387-2
13	2.028 [51.51]	1-640389-3	—
14	2.184 [55.47]	—	1-640387-4
15	2.340 [59.44]	1-640389-5	1-640387-5
18	2.808 [71.32]	1-640389-6	—
Standard UL94V-0, .000030 [0.00076] Gold Plated			
3	.468 [11.89]	641210-3	—
5	.780 [19.81]	641210-5	—
6	.936 [23.77]	641210-6	—
12	1.872 [47.55]	1-641210-2	—



Y = .068 [1.73] 2-8 position tin plated and 2-24 position gold plated headers.

Y = .073 [1.85] 9-24 position tin plated headers.



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

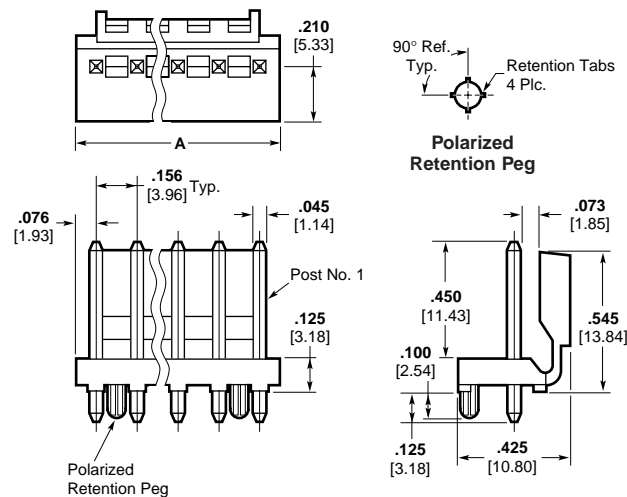
MTA-156 Polarized Lock Headers — Straight

Material and Finish

Housing — UL94V-0 rated, polyester, white

Posts — Copper alloy, tin plated or .000030 [0.00076] gold over nickel

Printed Circuit Board Connectors (Continued)



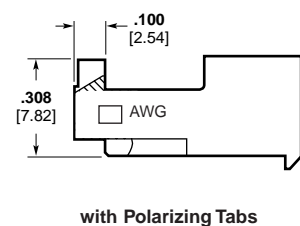
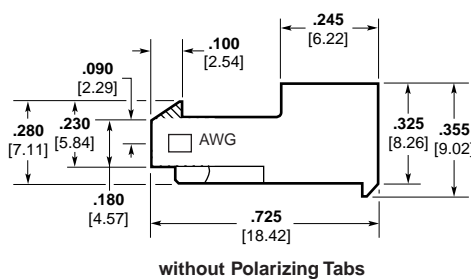
No. of Posts	Dim. A	Square Posts
		With Pegs
		Header Part Nos.
Standard UL94V-0, .000030 [0.00076] Gold Plated		
2	.307 [7.80]	644631-2
12	1.867 [47.42]	1-644631-2

MTA-156 IDC Quad Connectors — Closed End

Material and Finish

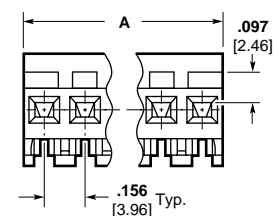
Housing — UL94V-0 rated, 6/6 nylon, black

Contacts — High conductivity copper alloy, post tin plated



Connector Type & Wire Size	No. of Circuits	Dim. A	Closed End with Locking Ramp	
			Without Tabs Connector Part Nos.	With Tabs Connector Part Nos.
Standard UL94V-0, Tin Plated				
18 AWG [0.8-0.9 mm²]	2	.312 [7.92]	—	644381-2
	3	.468 [11.89]	—	644381-3
	4	.624 [15.85]	644329-4	—
	8	1.248 [31.7]	—	644381-8
	12	1.872 [47.55]	—	1-644381-2

Closed End with Locking Ramp



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

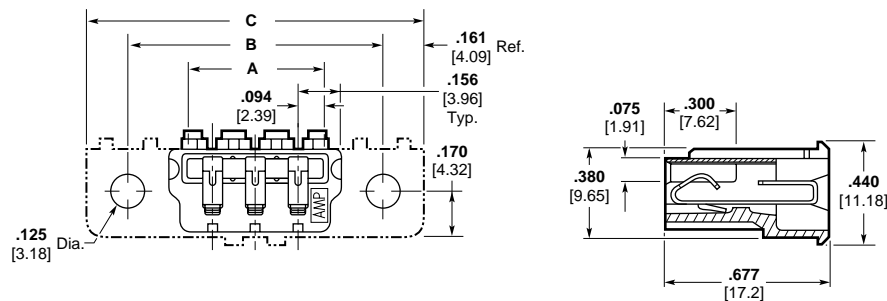
MTA-156 IDC Card Edge Connectors — Feed-Thru Without Mounting Ears

Material and Finish

Housing — UL94V-0 rated, polyester, see chart for color

Contacts — Phosphor bronze, post tin plated

Printed Circuit Board Connectors (Continued)



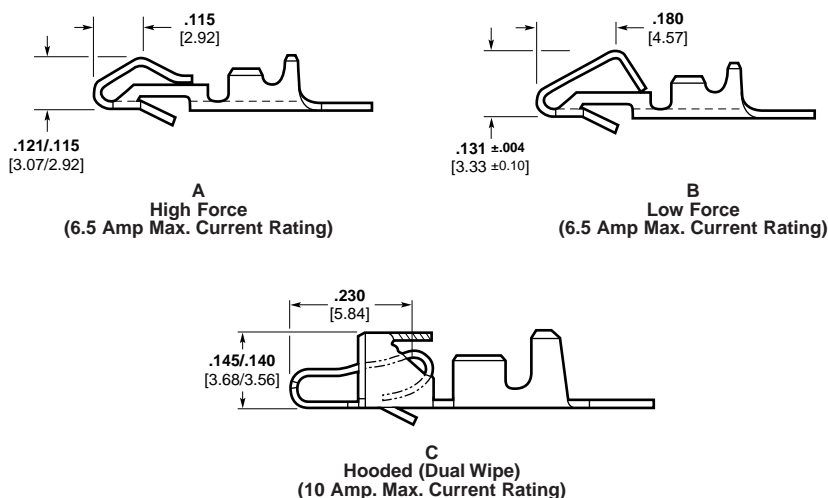
Connector Type & Wire Size	No. of Circuits	Dim. A	Dim. B	Dim. C	Connector Part Nos.
Standard UL94V-0, Tin Plated					
18 AWG [0.8-0.9 mm ²]	3	.500 [12.7]	.926 [23.52]	1.248 [31.7]	641293-3

SL-.156 Crimp Contacts

Contacts

Material and Finish

.012 [0.3] bright tin plated brass or phosphor bronze; .012 [0.3] pre-tin brass; or .012 [0.3] brass or phosphor bronze with .000030 [0.00076] gold over nickel (see chart)



Contact	Material and Finish	Part Numbers	
		Strip	Loose Piece
A	brass, bright tin plated	640252-1	640706-1
	brass, pre-tin plated	640252-2	640706-2
B	brass, bright tin plated	—	640707-1
	brass, pre-tin plated	350980-2	—
	brass, gold plated	350980-3	770258-1
C	phosphor bronze, bright tin plated	770476-1	770522-1
	phosphor bronze, gold plated	770476-2	770522-2

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156 Connectors and Headers; CST-100 Connectors and Headers and SL-156 Connectors

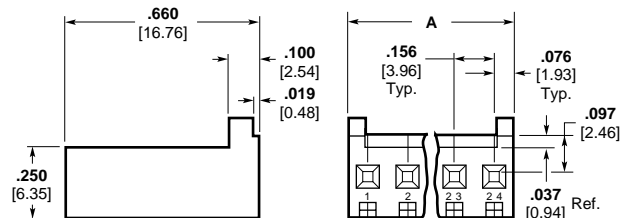
SL-156 Housings — Wire-to-Board

Housings

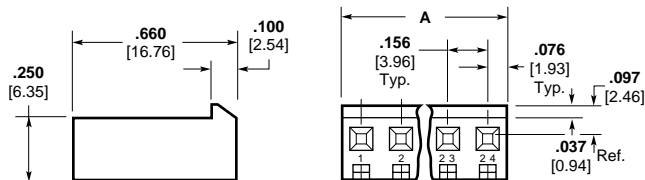
Material

UL94V-0 rated, type 6/6 nylon, white

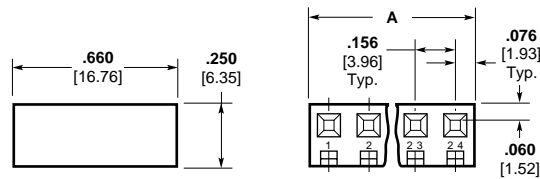
Printed Circuit Board Connectors (Continued)



With Locking Ramp/With Polarizing Tabs



With Locking Ramp/Without Polarizing Tabs



Without Locking Ramp/Without Polarizing Tabs

No. of Pos.	Dim. A	With Ramp/With Tabs	With Ramp/Without Tabs	Without Ramp/Without Tabs
1	.152 3.86	—	640250-1	640251-1
2	.308 7.82	770849-2	640250-2	640251-2
3	.465 11.81	770849-3	640250-3	640251-3
4	.620 15.75	770849-4	640250-4	640251-4
5	.777 19.74	770849-5	640250-5	640251-5
6	.933 23.70	770849-6	640250-6	640251-6
7	1.090 27.69	770849-7	640250-7	640251-7
8	1.246 31.65	770849-8	640250-8	640251-8
9	1.402 35.61	770849-9	640250-9	640251-9
10	1.558 39.57	1-770849-0	1-640250-0	1-640251-0
11	1.715 43.56	1-770849-1	1-640250-1	1-640251-1

No. of Pos.	Dim. A	With Ramp/With Tabs	With Ramp/Without Tabs	Without Ramp/Without Tabs
12	1.871 47.52	1-770849-2	1-640250-2	1-640251-2
13	2.027 51.49	1-770849-3	1-640250-3	1-640251-3
14	2.183 55.45	1-770849-4	1-640250-4	1-640251-4
15	2.340 59.44	—	1-640250-5	1-640251-5
16	2.496 63.40	1-770849-6	1-640250-6	—
18	2.808 71.32	—	1-640250-8	1-640251-8
19	2.965 75.31	—	—	1-640251-9
20	3.121 79.27	—	—	2-640251-0
22	3.433 87.20	—	2-640250-2	2-640251-2
24	3.746 95.15	—	2-640250-4	2-640251-4

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82056

MTA-100 and MTA-156
Connectors and Headers;
CST-100 Connectors and
Headers and SL-156
Connectors

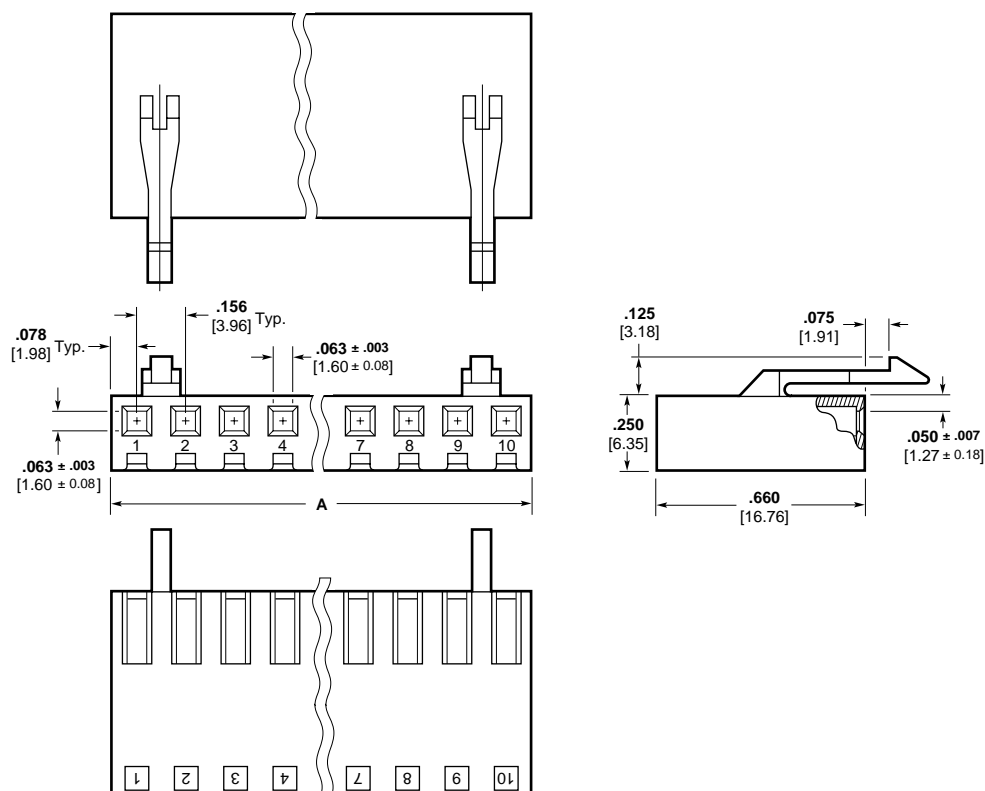
SL-156 Housings With
Through Board Latch

Housings

Material

UL94V-2 rated, type 6/6 nylon, white

Printed Circuit Board Connectors (Continued)



No. of Pos.	Dim. A	Latch Location Centered Between Pos.	Part Number
6	.936 23.77	3 and 4	770894-6

For Complete Product Information, Order Catalog 82056

Eurocard Connectors per
DIN 41612 and IEC 603-2Type B Right-Angle Pin
Assemblies with Solder Posts

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Brass

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in mating area, Tin Lead on tails, all over .000050 Nickel.

Printed Circuit Board Connectors (Continued)

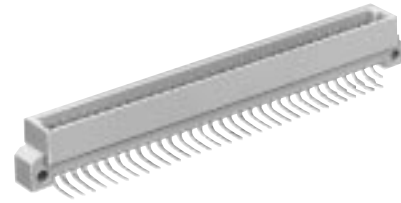
Standard Size

Number of Positions	Rows Loaded	DIN Level	Part Number
64	A,B	II	<u>536052-5</u> 536385-5 ¹

¹With Boardlocks

Half Size

Number of Positions	Rows Loaded	DIN Level	Part Number
32	A,B	II	536053-5

Type B Vertical Receptacle
Assemblies With Solder Posts
for Pc Board Mount

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in mating area, Tin Lead on tails, all over .000050 Nickel.

Standard Size

Number of Positions	Rows Loaded	DIN	Part Numbers	
			3.30 [.130] Post Length	4.57 [.180] Post Length
64	A,B	II	650860-5	<u>650861-5</u> 650861-4 ¹

¹.000030 Gold plating in contact area, Tin lead on tails, all over .000050 Nickel.

Half Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			3.30 [.130] Post Length	4.57 [.180] Post Length
32	A,B	II	<u>536446-5</u> 536460-5 ¹	<u>650858-5</u> —

¹With Boardlocks

Type B Vertical Receptacle
Assemblies with ACTION PIN
Posts for Pc Board Mount
(0.30 x 0.61 [.012 x .024])
(4.83 [.190] Post Length)

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in mating area, Tin Lead on tails, all over .000050 Nickel.

Standard Size (for PC Board Thicknesses 1.57 [.062] and Above)

Number of Positions	Rows Loaded	DIN Level	Part Number
64	A,B	II	650865-5



For Complete Product Information, Order Catalog 82721

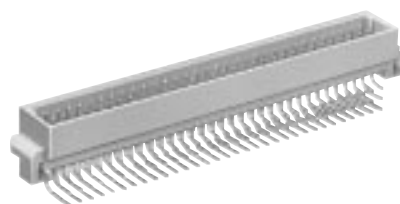
Eurocard Connectors per
DIN 41612 and IEC 603-2Type C Right-Angle Pin
Assemblies with Solder Posts
(with and without Boardlocks)

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts and Boardlocks — Brass

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in mating area, Tin Lead on tails, all over .000050 Nickel.



Printed Circuit Board Connectors (Continued)

Standard Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers		
			2.64 [.104] Post Length	3.30 [.130] Post Length	4.57 [.180] Post Length
96	A,B,C	II	650473-5	650947-5	148116-5
			650913-5 ¹	536405-5 ¹	—
			536010-5 ²	—	—
			536416-5 ^{1,2}	—	—
64	A,C	II	650473-9	650947-9	—
			650945-5	650951-5	—
			536356-5 ¹	—	—
			536011-5 ²	—	—

¹With Boardlocks²High Temperature Housing

Half Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			2.64 [.104] Post Length	3.30 [.130] Post Length
48	A,B,C	II	650478-5	650948-5
			650916-5 ¹	536407-5 ¹
32	A,C		640946-5	—

¹With Boardlocks

Expanded Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			2.64 [.104] Post Length	3.30 [.130] Post Length
120	A,B,C	II	650906-5	650949-5
			650914-5 ¹	—
150	A,B,C	II	650915-5 ¹	—

¹With BoardlocksType C Right-Angle Pin
Assemblies with Solder Posts
and Guides

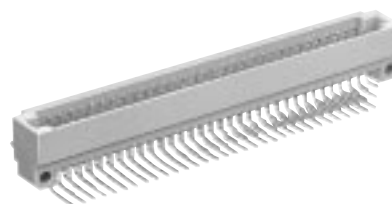
Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Brass

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in mating area, Tin Lead on tails, all over .000050 Nickel.

Number of Positions	Rows Loaded	DIN Level	Part Numbers
96	A, B, C	II	148003-5



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82721

**Eurocard Connectors per
DIN 41612 and IEC 603-2**

**Type C Right-Angle Pin
Assemblies with ACTION PIN
Posts for PC Board Mount
(0.64 [.025] Square)**

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

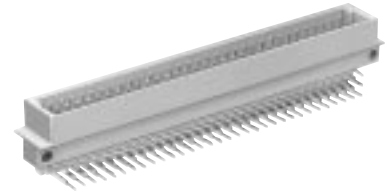
DIN II Plating — .000030 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

DIN III Plating — .000008 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

Printed Circuit Board Connectors (Continued)

Standard Size (for 1.57 [.062] Min. PC Board Thickness)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers
96	A,B,C	II	215605-4

**Type C Vertical Receptacle
Assemblies with Solder Posts
for PC Board Mount****Material:**

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in mating area, Tin Lead on tails, all over .000050 Nickel.

Standard Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers		
			2.49 [.098] Post Length	3.30 [.130] Post Length	4.57 [.180] Post Length
96	A,B,C	II	535089-5	535090-5	535043-5
			—	535090-4 ²	535043-4 ²
		III	536418-5 ¹	650963-5 ¹	536412-5 ¹
			—	650963-4 ^{2,1}	536412-4 ^{2,1}
64	A,C	II	—	535090-9	535043-9
			650458-5	650956-5	650408-5
			—	—	650408-4 ²
			536481-5 ¹	650983-5	—

¹With Boardlocks

²Contact Plating: .000030 Gold in mating area, Tin Lead on tails, All over .000050 Nickel.

Half Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers		
			2.49 [.098] Post Length	3.30 [.130] Post Length	4.57 [.180] Post Length
48	A,B,C	II	535091-5	535070-5	535071-5
			—	535070-4 ²	535071-4 ²
		III	536397-5 ¹	536484-5 ¹	—
			535091-9	—	—
32	A,C	II	—	—	650466-4 ²

¹With Boardlocks

²Contact Plating: .000030 Gold in mating area, Tin Lead on tails, All over .000050 Nickel.

Expanded Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers		
			2.49 [.098] Post Length	3.30 [.130] Post Length	4.57 [.180] Post Length
120	A,B,C	II	535097-5	535098-5	—
		III	—	535098-4 ¹	—
150	A,B,C	II	535097-9	—	—
			—	650405-5	650406-5

¹Contact Plating: .000030 Gold in mating area, Tin Lead on tails, All over .000050 Nickel.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82721

Eurocard Connectors per
DIN 41612 and IEC 603-2

Type C Vertical Receptacle
Assemblies with Solder Posts
(0.30 x 0.61 [.012 x .024])
and Guides
(3.30 [.130] Post Length)

Material:

Housing — Polyester, grey, 94V-0
rated

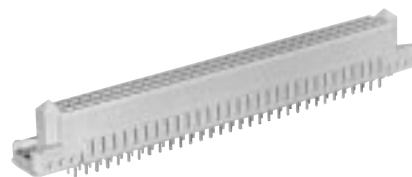
Contacts — Phosphor bronze

DIN II Plating — Gold Flash over
.000030 Palladium/Nickel in mating
area, Tin Lead on tails, all over .000050
Nickel.

Printed Circuit Board Connectors (Continued)

Standard Size
(for PC Board Thicknesses 1.57 [.062] and Above)

Number of Positions	Rows Loaded	DIN Level	Part Numbers
96	A,B,C	II	650998-5



Type C Vertical Receptacle
Assemblies with ACTION PIN
Posts for PC Board Mount
(0.30 x 0.61 [.012 x .024])

Material:

Housing — Polyester, grey, 94V-0
rated

Contacts — Phosphor bronze

DIN II Plating — Gold Flash over
.000030 Palladium/Nickel in mating
area, Tin Lead on tails, all over .000050
Nickel.

Standard Size (for PC Board Thicknesses 1.57 [.062] and Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers
96	A,B,C	II	535032-5
			535032-4 ²
		III	535056-5 ¹
			535056-4 ²
64	A,C	II	535032-9
			535059-5
			535059-4 ²

¹Without mounting ears.

²Contact Plating: .000030 Gold in mating area, Tin Lead on tails, All over
.000050 Nickel.



Half Size (for PC Board Thicknesses 1.57 [.062] and Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers
48	A,B,C	II	535034-5
			535034-4 ²
		III	535034-9
32	A,C	II	535068-5

Expanded Size (for PC Board Thicknesses 1.57 [.062] and
Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers
120	A,B,C	II	535079-5
150	A,B,C	II	535080-5

Connectors on this page are toolless (flat rock).

When they are installed using an SM-3 Machine a spacer of 26.67 [1.050] is
needed to make up height difference.

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82721

Eurocard Connectors per
DIN 41612 and IEC 603-2

Type C Vertical Receptacle
Assemblies with ACTION PIN
Posts for PC Board Mount
(0.64 [.025] Square)

Material:

Housing — Polyester, grey, 94V-0
rated

Contacts — Phosphor bronze

DIN II Plating — Gold Flash over
.000030 Palladium/Nickel in contact
mating area, Tin Lead on tails (unless
otherwise specified), all over .000050
Nickel.

DIN III Plating — .000008 Gold in
contact mating area, Tin Lead on tails
(unless otherwise specified), all over
.000050 Nickel.

Printed Circuit Board Connectors (Continued)

Standard Size (for PC Board Thicknesses 2.36 [.093] and Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			13 [.512] Post Length	17 [.669] Post Length
96	A,B,C	II	215912-4 ³	—
			1-215912-4 ^{1,3}	1-215614-4 ^{1,3}
			148057-5 ²	—
64	A,C	II	1-148057-5 ^{1,2}	1-148059-5 ^{1,2}
			148167-5	—

Type C Vertical Pin Housing
for Crimp Snap-In Pin
Contacts**Material:**

Housing — Polyester, grey, 94V-0
rated

Standard Size

Number of Positions	Part Number
96	166467-1

AMPMODU Mod. IV
Crimp Snap-In
Pin Contacts**Material:**

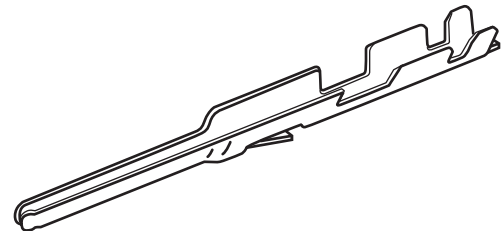
Contacts — Phosphor bronze

DIN II Plating — Gold Flash over
.000030 Palladium/Nickel in mating
area, Tin Lead on tails, all over .000050
Nickel.

DIN III Plating — .000008 Gold in
mating area, Tin Lead on tails, all over
.000050 Nickel.

Wire Size Range		Insulation Diameter (Max.)	DIN Levels	Part Numbers	
mm ²	AWG			Strip Form ¹	Loose Piece
0.12 - 0.4	26-22	1.60 [.063]	II	102095-3	166679-1
			III	102095-2	—

¹Strip form, 12,000 pieces per reel. For automatic tooling recommendation, consult AMP Incorporated.

**Note:**

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82721

**Eurocard Connectors per
DIN 41612 and IEC 603-2****Type C Vertical Receptacle
Housing for Crimp Snap-In
Receptacle Contacts****Material:**

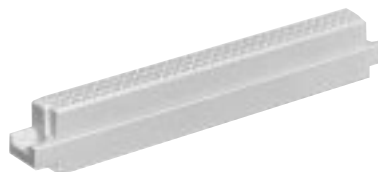
Housing — Polycarbonate, grey,
94V-1 rated or polyester (see chart)

Printed Circuit Board Connectors (Continued)**Standard Size**

Number of Positions	Part Numbers
96	925486-1

Half Size

Number of Positions	Part Number
48	926040-2

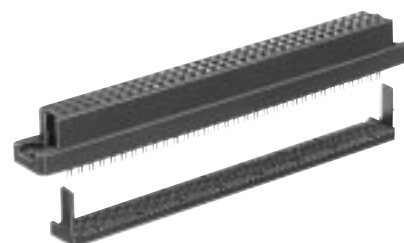
**Type C Receptacle
Assemblies EUROLATCH
Ribbon Cable Connectors,
Inverse Style****Receptacle Assemblies
with Cover
(Preassembled)****Material:**

Housing — Thermoplastic, black,
94V-0 rated

Contacts — Phosphor bronze, plated
0.00076 [.000030] gold in contact area,
0.00254 [.000100] min. bright tin-lead
on termination end, with entire contact
underplated 0.00127 [.000050] min.
nickel

Standard Size

Number of Positions	Rows Loaded	Part Numbers
64	A, C	746603-1

**Cable Specifications:**

64 conductor

0.05mm² [30 AWG] solid

0.08-0.09mm² [28 AWG] solid or
stranded

0.12-0.15mm² [26 AWG] solid or
stranded

Thickness, 0.89 ± 0.08 [.035 ± .003]

Conductor centerline, 1.27 [.050]

**Type F Right-Angle Pin
Assemblies with Solder Posts****Material:**

Housing — Polyester, grey, 94V-0
rated

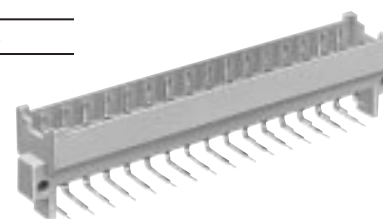
Contacts — Phosphor bronze

DIN II Plating — .000030 Gold in
mating area, Tin Lead on tails, all over
.000050 Nickel.

DIN III Plating — .000015 Gold in
mating area, Tin Lead on tails, all over
.000050 Nickel.

Standard Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers MFBL Z32
48	Z,B,D	II	2-164045-4



For Complete Product Information, Order Catalog 82721

Eurocard Connectors per
DIN 41612 and IEC 603-2Type F Vertical Receptacle
Assemblies with Wrap Type
and Solder Posts

Material:

Housing — Polycarbonate, grey, 94V-1 rated or polyester (see chart)

Contacts — Phosphor bronze

DIN II Plating — .000030 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

DIN III Plating — .000015 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

Printed Circuit Board Connectors (Continued)

Number of Positions	Post Type	Rows Loaded	DIN Levels	Part Numbers
48	4 [.157] Solder	Z,B,D	II	166733-4

Type F Vertical Receptacle
Assemblies with ACTION PIN
Posts (0.64 [.025] Square)

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

DIN II Plating — .000030 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

DIN III Plating — .000015 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

Standard Size (for PC Board Thicknesses 1.57 [.062] and Above)

Number of Positions	Rows Loaded	DIN Levels	4 [.157] Post Length
48	Z,B,D	II	215334-4

Type F Vertical Receptacle
Assemblies with ACTION PIN
Posts (1.00 [.039] Square)

Material:

Housing — Polyester, grey, 94V-0 rated (except where noted)

Contacts — Phosphor bronze

DIN II Plating — .000030 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

DIN III Plating — .000015 Gold in mating area, Tin Lead on tails, all over .000050 Nickel.

Standard Size (for PC Board Thicknesses 2.36 [.093] and Above)

Number of Positions	Rows Loaded	DIN Levels	6 [.236] ¹ Post Length
48	Z,B,D	II	166648-4
		III	2-166648-4 ²

¹Pre-notched to break off at 6.00 [.236] from bottom of connector.

²Extended ends of posts already broken off (only for 2-166648-4).



For Complete Product Information, Order Catalog 82721

Eurocard Connectors per
DIN 41612 and IEC 603-2Type F Vertical Receptacle
Housings for Crimp Snap-In
Receptacle Contacts

Material:

Housing — Polyester, grey, 94V-0 rated

Printed Circuit Board Connectors (Continued)

Standard Size

Number of Positions	Part Numbers
48	166569-1



Crimp Snap-In Contacts

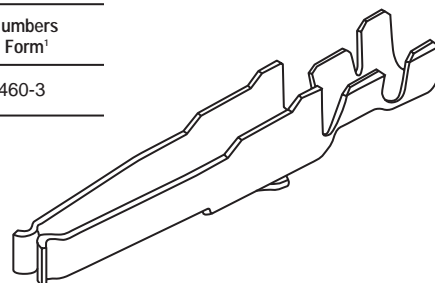
Material:

Phosphor bronze

DIN II Plating — .000030 Gold in contact area over .000050 Nickel, remainder .000050 Nickel.

DIN III Plating — .000015 Gold in contact area over .000050 Nickel, remainder .000050 Nickel.

Wire Size Range		Insulation Diameter	DIN Levels	Part Numbers Strip Form ¹
mm ²	AWG			
0.12-0.6	26-20	1.10-1.80 [.043-.071]	II	166460-3

High Current Contacts for
Type M Receptacle
Assemblies

High Current Contacts

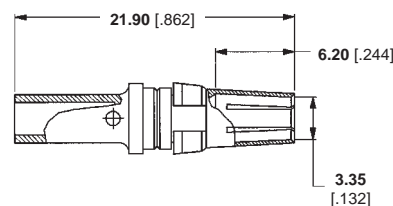
Material and Finish:

Contacts — Copper alloy, gold over nickel plated

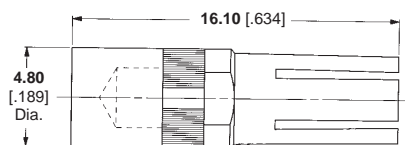
Retaining Ring — Copper alloy

AWG	Contact Rated Current (Amperes)	Solder Part Number
12-14	20	100082-1

Female Power Contacts for Cable Termination



Female Power Contact for PC Board Mount



Part Number 148375-1
(40 ampere rated current)

For Complete Product Information, Order Catalog 82721

Eurocard Connectors per
DIN 41612 and IEC 603-2Type Q Right-Angle
Receptacle Assemblies with
Solder Posts and MFB
Contacts

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

Contact Plating — Gold Flash in contact area, Tin Lead on tails.

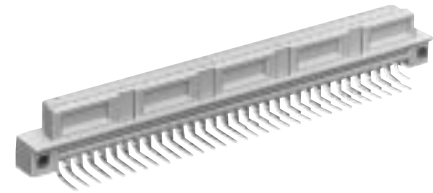
DIN II Plating — .000030 Gold in contact area, Gold Flash on remainder, all over .000050 Nickel.

DIN III Plating — .000015 Gold in contact area, Gold Flash on remainder, all over .000050 Nickel.

Printed Circuit Board Connectors (Continued)

Standard Size

Number of Positions	Rows Loaded	DIN Level	Part Number
64	A,B	III	174253-2

Type R Vertical Pin
Assemblies with Solder Posts

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Brass

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in contact area, Tin Lead on tails, all over .000050 Nickel.

DIN III Plating — Gold Flash in contact area, Tin Lead on tails, all over .000050 Nickel.

Standard Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			3.30 [.130] Post Length	4.57 [.180] Post Length
96	A,B,C	II	650908-5	650470-5
64	A,C	II	536035-5	—
			650933-5	650934-5

*With Boardlocks

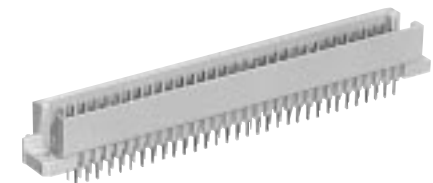
Half Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			3.30 [.130] Post Length	4.57 [.180] Post Length
48	A,B,C	II	650479-5	650477-5
32	A,C	II	536421-5	—
			—	650936-5

*With Boardlocks

Expanded Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			3.30 [.130] Post Length	4.57 [.180] Post Length
120	A,B,C	II	650919-5	—

Type R Vertical Pin
Assemblies with Solder Posts
and Guides

Material:

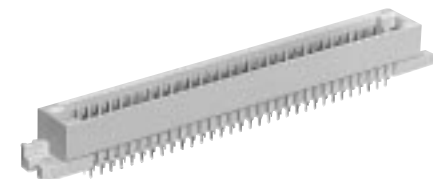
Housing — Polyester, grey, 94V-0 rated

Contacts — Brass

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in contact mating area, Tin Lead on tails, all over .000050 Nickel.

Standard Size

Number of Positions	Rows Loaded	DIN Level	Part Number
96	A,B,C	II	148004-5



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82721

Eurocard Connectors per
DIN 41612 and IEC 603-2Type R Vertical Pin
Assemblies with ACTION PIN
Posts (0.64 [.025] Square)

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts — Phosphor bronze

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in contact area, Tin Lead on tails (unless otherwise specified), all over .000050 Nickel.

DIN III Plating — Gold Flash in contact area, Tin Lead on tails, all over .000050 Nickel.

Printed Circuit Board Connectors (Continued)

Standard Size (for PC Board Thicknesses 2.36 [.093] and Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			6.35 [.250] Post Length	13.23 [.521] Post Length
96	A,B,C	II	650889-5	650909-5
			—	1-650909-4 ¹
64	A,C	II	650912-5	1-650930-4 ¹

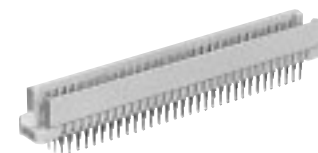
¹Precious metal plating in contact area and for 5.08 [.200] from tip of post; gold flash on remainder of post.

Half Size (for PC Board Thicknesses 2.36 [.093] and Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			6.35 [.250] Post Length	13.23 [.521] Post Length
48	A,B,C	II	650918-5	—
32	A,C	II	650931-5	—

Expanded Size (for PC Board Thicknesses 2.36 [.093] and Above)

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			6.35 [.250] Post Length	13.23 [.521] Post Length
120	A,B,C	II	650921-5	650920-5
150	A,B,C	II	650924-5	—

Type R Right-Angle
Receptacle Assemblies with
Solder Posts
(with and without Boardlocks)

Material:

Housing — Polyester, grey, 94V-0 rated

Contacts and Boardlocks — Phosphor bronze

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in contact area, Tin Lead on tails, all over .000050 Nickel.

DIN III Plating — Gold Flash in contact area, Tin Lead on tails, all over .000050 Nickel.

Standard Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			2.79 [.110] Post Length	4.24 [.167] Post Length
96	A,B,C	II	650461-4 ²	650462-4 ²
			650461-5	650462-5
			650895-4 ^{2,1}	—
		III	650895-5 ¹	—
			650461-9	—
64	A,C	II	650870-4 ²	—
			650870-5	—
			650897-4 ^{2,1}	—
			650897-5 ¹	—

Half Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			2.79 [.110] Post Length	4.24 [.167] Post Length
48	A,B,C	II	650868-4 ²	—
			650868-5	—
		III	650893-5 ¹	—
			650868-9	—
32	A,C	II	650867-5	—

Expanded Size

Number of Positions	Rows Loaded	DIN Levels	Part Numbers	
			2.79 [.110] Post Length	4.24 [.167] Post Length
150	A,B,C	II	650875-5	—
			650959-5 ¹	—
120	A,B,C	II	650874-4 ²	—
			650874-5	—

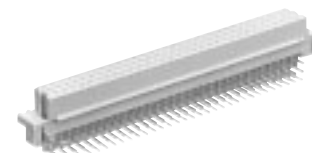
Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

¹With Boardlocks

²Contact plating .000030 Gold in contact area, tin lead on tails, all over .000050 Nickel.

For Complete Product Information, Order Catalog 82721



Eurocard Connectors per DIN 41612 and IEC 603-2

Type R Right-Angle Receptacle Assemblies with Solder Posts and Guides

Material:

Housing — Polyester, grey, 94V-0 rated

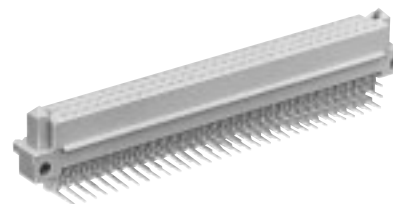
Contacts — Phosphor bronze

DIN II Plating — Gold Flash over .000030 Palladium/Nickel in contact area, Tin Lead on solder tails, all over .000050 Nickel.

Printed Circuit Board Connectors (Continued)

Standard Size

Number of Positions	Rows Loaded	DIN Level	Part Number
96	A,B,C	II	650995-5

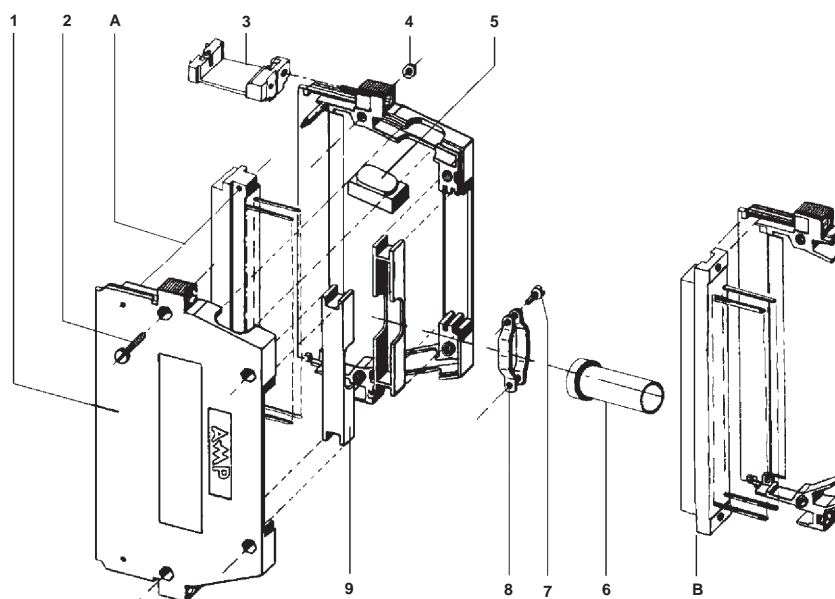


Two-piece Cable Clamp Assemblies

Kit parts are packaged unassembled

Part Details

Item	Description
A;B	Pin Assembly; Receptacle Assembly (Show for ref. only)
1	Cover (shell half)
2	Screw M 2.5 [.10] x ...DIN 84
3	Guide Bracket (not supplied in kit)
4	Hex. nut M 2.5 [.10] DIN 439
5	Cable outlet closing plate
6	Cable Boot
7	Screw M 2.5 [.10] x ...DIN 84
8	Strain Relief Clamp
9	Fixture for 180° Cable outlet



Part Number 826196-1

Keying Systems

Type B, C, D, F, R and Q Connector Keying

Material:

Housing — Polycarbonate, red, 94V-1 rated

Pin Assembly Keying Strip

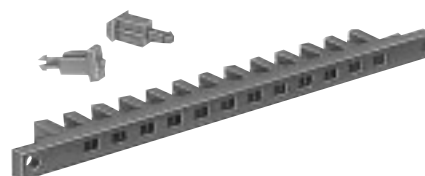
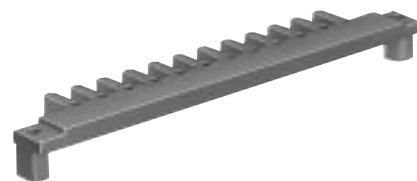
Connector Type	Part Numbers
C,D,F ¹ ,R	926495-1

¹For Type F cable mount only.

Receptacle Assembly Keying Strip

Connector Type	Part Number
B,C,D,F,Q,R	926495-2 ¹

¹Two Keying plugs are moulded to the strip, additional quantities of plugs can be ordered separately



For Complete Product Information, Order Catalog 82721

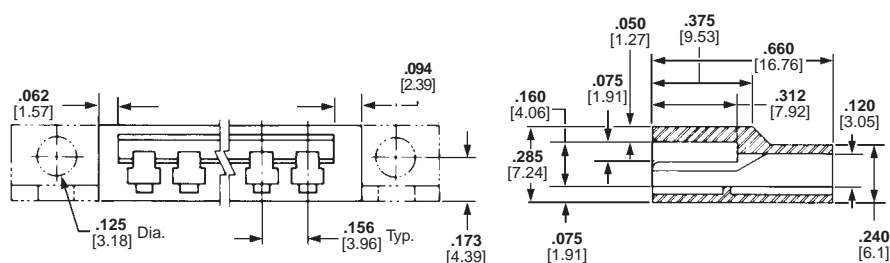
Bifurcated Leaf Connectors

Printed Circuit Board Connectors (Continued)

Housings for Single-Sided
PC Boards
(Without Mounting Ears)

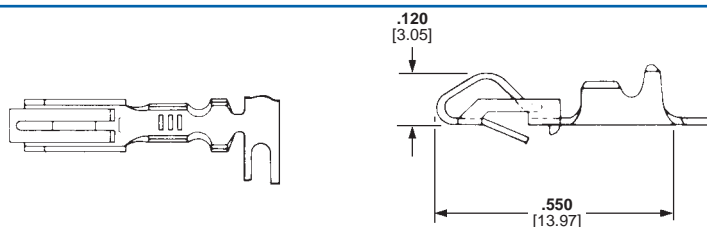
Material:

Unreinforced polyester thermoplastic,
94V-0 rated, natural



No. of Circuits	Part Numbers
2	640136-2
4	640136-4
6	640136-6
9	640136-9

Crimp, Snap-In Contacts



Wire Size AWG/mm ²	Ins. Dia.	Material	Stock Thickness	Finish	Contact Part No	
					Loose Piece	Strip Form
24-18 [0.2-0.9]	.100 [2.54]	Brass	.012 [0.3]	Bright Tin Plated	350011-1	61668-1
		Phosphor Bronze	.012 [0.3]	Pre-Tinned	—	61668-2
		Phosphor Bronze	.012 [0.3]	Selective Gold Plated	—	61668-4

For Complete Product Information, Order Catalog 65459

CT (Common Termination) Connector System Wire-to-Board Connectors

MT Connectors (2mm Pitch)

Receptacle Assemblies (Wire Application Side)

Material and Finish:

Housing—UL94V-0 rated, glass-

filled P.B.T., see note below for color

Contact—Pre-tinned phosphor bronze

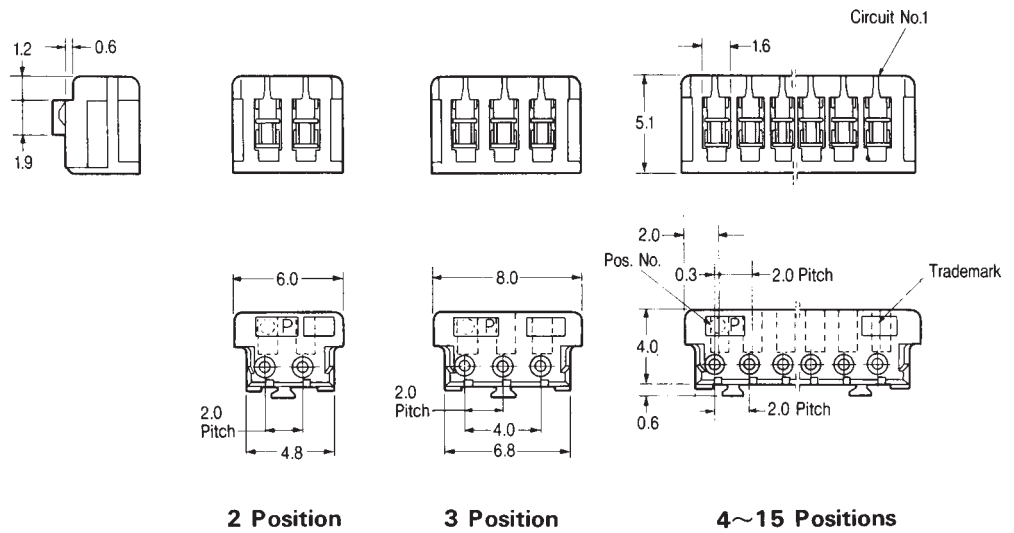
Wire Size: AWG #28-26

(0.08-0.15mm²)

Insulation Dia.: AWG #28-26

(0.85-1.05mm)

Printed Circuit Board Connectors (Continued)



2 Position

3 Position

4~15 Positions

No. of Pos.	Part Number of Receptacle Assembly AWG #28-26 ¹
8	173977-8
9	173977-9
10	1-173977-0
11	1-173977-1
12	1-173977-2
13	1-173977-3
14	1-173977-4
15	1-173977-5

¹The color of housing is natural. Other colors available include blue, yellow and black.

For Complete Product Information, Order Catalog 1242172

CT (Common Termination) Connector System Wire-to-Board Connectors

Double Row Arrangement Type
Post Header

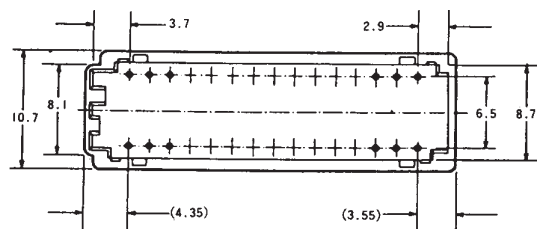
Vertical Mount Type Without
and With Polarizing Boss
(PC Board Application Side)

Material and Finish:

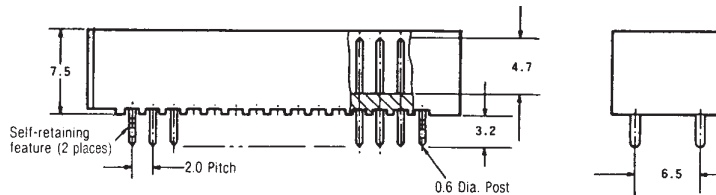
Housing—UL94V-0 rated, 6/6 nylon,
see note below for color

Post Contact—Tin-plated brass

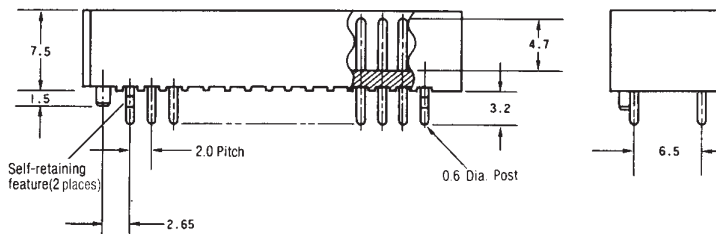
Printed Circuit Board Connectors (Continued)



Without Boss



With Boss



No. of Pos.	Part No. of Post Head	
	Without Polarizing Boss	With Polarizing Boss
18	—	1-178342-8
20	2-175132-0	2-178342-0
22	2-175132-2	2-178342-2
24	—	2-178342-4
26	—	2-178342-6
28	—	2-178342-8
30	3-175132-0	3-178342-0

For Complete Product Information, Order Catalog 1242172

CT (Common Termination) Connector System Wire-to-Board Connectors

Post Header Assemblies (For MT and Crimp Type)

Wire-to-Wire Post Header Assembly (Panel Mounting Side)

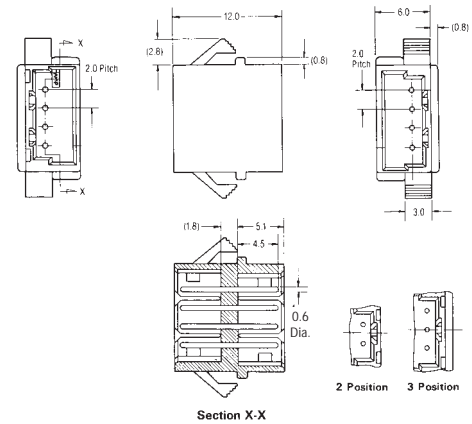
Material and Finish:

Housing—UL94V-0 rated, 6/6 nylon
Post Contact—Tin-lead brass

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Number of Post Header ¹
2	175694-2
3	175694-3
4	175694-0
5	175694-1
6	175694-2
7	175694-3
8	175694-4
9	175694-4
10	1-175694-0
11	1-175694-1
12	1-175694-2

¹The color of housing is natural. Other colors available include blue, yellow and black.



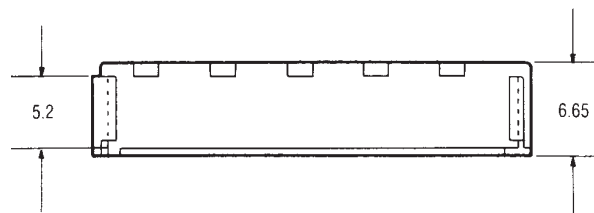
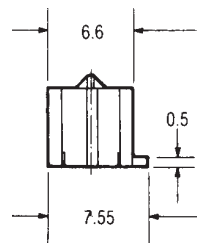
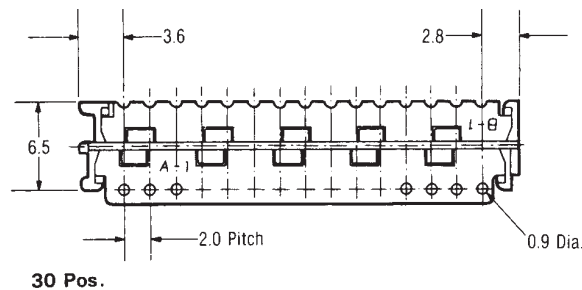
Double Row Arrangement

Receptacle Connector Captivating Holder (Wire Application Side)

30 Positions
Part Number: 3-175133-0

Material:

6/6 nylon



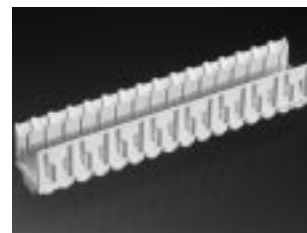
For Complete Product Information, Order Catalog 1242172

**Z-PACK 2mm FB
(Futurebus+) Connectors**

4 Row, Signal Modules,
Vertical Pin Assemblies
(Fixed-Board Connector),
2mm x 2mm Circuit Grid

Printed Circuit Board Connectors (Continued)**Vertical Pin Assemblies with Solder Leads**

Number of Positions	Part Numbers	
	Solder Lead Length of 4.25mm	
	Mating Post Lengths (mm)	
	5.00	6.50
24	536513-1	536501-1
48	536513-2	536501-2
96	536513-3	536501-3
192	536513-4	536501-4

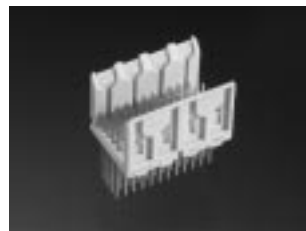
**Vertical Pin Assemblies with Press-Fit Leads**

Number of Positions	Part Numbers	
	Lead Length of 4.25mm	
	Mating Post Lengths (mm)	
	5.00	6.50
24	536514-1	1-536504-1
48	536514-2	536504-2
72	—	1-536504-2
96	536514-3	536504-3
192	536514-4	1-536504-4
264	—	1-536504-1

4 Row, Signal Modules, Vertical
Feed-Through Pin Assemblies
(Fixed-Board Connector),
2mm x 2mm Circuit Grid

16mm Wide Body Pin
Assemblies
with Feed-Through Compliant
Press-Fit Leads

Part Number: **536526-2**
Number of Positions — 48
Mating Post Length — 6.50
Pressed-Fit Lead Length — 13.60

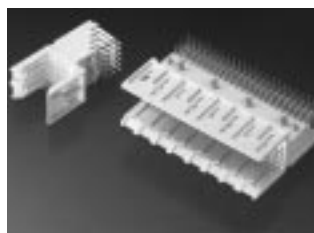
**Material and Finish:**

Housing — Liquid crystal polymer
Pin Contacts — Phosphor bronze,
entire contact plated gold flash over
0.0008 min. palladium nickel on mating
surfaces, with entire contact underplat-
ed .00013 nickel

4 Row, Signal Modules, Right-
Angle Pin Assemblies
(Free-Board Connector),
2mm x 2mm Circuit Grid

16mm Wide Body
Right-Angle Pin Assemblies
with Solder Leads

Part Number: **223513-4**
Number of Positions — 192

**Material and Finish:**

Housing — Liquid crystal polymer
Pin Contacts — Phosphor bronze,
duplex plated gold flash over 0.0008
min. palladium-nickel on mating sur-
face, 0.0038 min. tin-lead on solder
lead, with entire contact underplated
0.0013 nickel

Note:
BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 65358

Z-PACK 2mm FB (Futurebus+) Connectors

4 Row, Signal Modules, Right-Angle Receptacle Assemblies (Free-Board Connector), 2mm x 2mm Circuit Grid

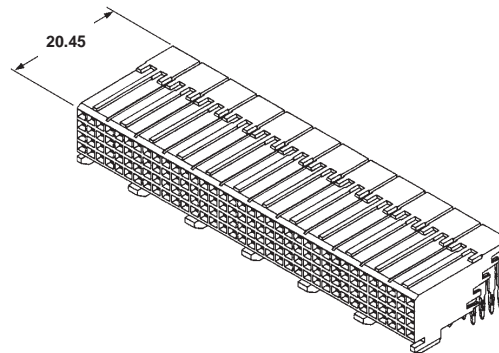
Receptacle Assemblies with Solder Leads and Compliant Press-Fit Leads

Material and Finish:

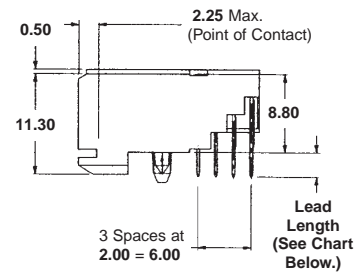
Housing — Liquid crystal polymer

Receptacle Contacts — Copper alloy 18C, duplex plated gold flash over 0.0008 min. palladium-nickel on mating surface, 0.0038 min. tin-lead on solder lead, with entire contact underplated 0.0013 nickel

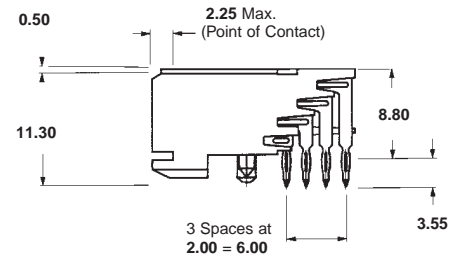
Printed Circuit Board Connectors (Continued)



No. of Positions	Part Numbers		
	with Solder Leads		with Press-Fit Leads
	2.73 Lead Length	3.53 Lead Length	
24	536507-1	536510-1	536511-1
48	536507-2	536510-2	536511-2
72	1-536507-1	—	—
96	536507-3	536510-3	536511-3
120	536507-6	—	—
144	—	536510-5	—
168	—	—	536511-8
192	536507-4	536510-4	536511-4
216	—	—	1-536511-0



Solder Leads



Compliant Press-Fit Leads

4 Row, Power Modules, Vertical Pin Assemblies (Fixed-Board Connector), 2mm x 2mm Circuit Grid

16mm Wide Body Pin Assemblies with Solder Leads and Compliant Press-Fit Leads (8 Positions)

Material and Finish:

Housing — Liquid crystal polymer

Pin Contacts — Phosphor bronze, duplex plated gold flash over 0.0008 min. palladium-nickel on mating surface, 0.0038 min. tin-lead on solder lead, with entire contact underplated 0.0013 nickel

No. of Positions	Mating Post Lengths	Part Numbers	
		4.25 Solder Leads	Press-Fit Leads
8	6.50	536600-1	536603-1



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65358

Z-PACK 2mm FB (Futurebus+) Connectors

4 Row, Power Modules, Right-Angle Receptacle Assemblies (Free-Board Connector), 2mm x 2mm Circuit Grid

Receptacle Assemblies with Solder Leads and Compliant Press-Fit Leads (8 Positions)

Material and Finish:

Housing — Liquid crystal polymer

Receptacle Contacts — Phosphor bronze, duplex plated gold flash over 0.0008 min. palladium-nickel on mating surface, 0.0038 min. tin-lead on solder lead, with entire contact under-plated 0.0013 nickel

Printed Circuit Board Connectors (Continued)

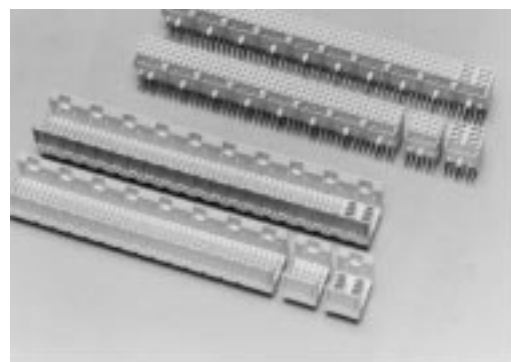
No. of Positions	Part Numbers		
	with Solder Leads		with Press-Fit Leads
	2.73 Lead Length	3.53 Lead Length	
8	536607-1	536613-1	536614-1



Monoblock Hybrid Connectors

Part Number: 536716-2

Configuration — 48-8-96



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65358

Z-PACK 2mm HM Hard Metric Interconnection System

Vertical Male Connectors, 5 Row, Types A, B and C

Vertical Male Connectors

Material and Finish:

Glass filled polyester housing gray, UL94 V-0 rated

Phosphor-bronze signal contacts

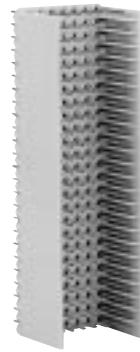
Contact area 0.8µm Au over 1.3µm Ni

ACTION PIN 0.5µm Sn/Pb over 1.3µm Ni

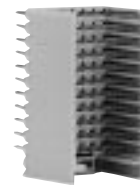
Printed Circuit Board Connectors (Continued)



Type A

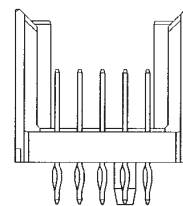


Type B

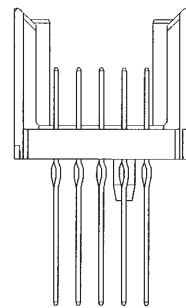


Type C

Connector Type	Part Numbers		
	Short Tail		Feedthrough
	5 Row	5+2 Row	5+2 Row
A	100143-1	100668-1	106509-1
B	100141-1	100669-1	106510-1
C	100159-1	106081-1	—



Short Tail



Feedthrough

Right Angle Female Connectors, 5 Row, Types A, B and C

Right Angle Female Connectors

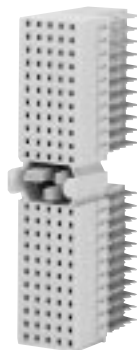
Material and Finish:

Glass filled polyester housing gray, UL94 V-0 rated

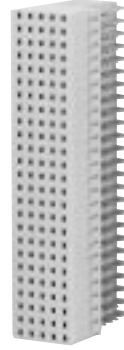
Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

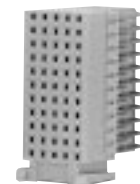
ACTION PIN 0.5µm Sn/Pb over 1.3µm Ni



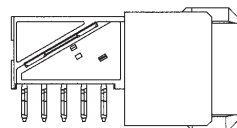
Type A



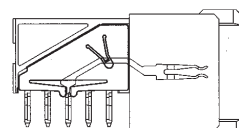
Type B



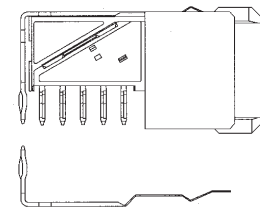
Type C



Standard



Reduced Cross Talk



With Upper Shield Attached
Separate Lower Shield

Connector Type	Part Numbers			
	Standard	Reduced Cross Talk	Std with Upper Shield	Lower Shield
A	100147-1	100623-1	—	338108-2
B	100145-1	100624-1	352069-1	338110-2
C	100161-1	—	352115-1	—

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65911

Z-PACK 2mm HM Hard Metric Interconnection System

Vertical Male Connectors, 8 Row, Types A and B

Vertical Male Connectors

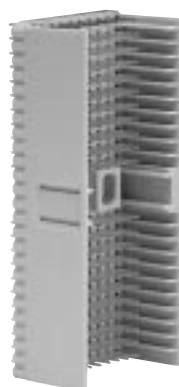
Material and Finish:

Glass filled polyester housing gray, UL94 V-0 rated

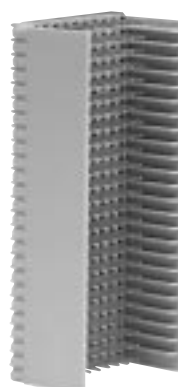
Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

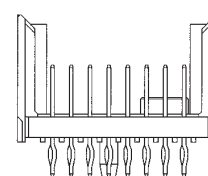
ACTION PIN 0.5µm Sn/Pb over 1.3µm Ni



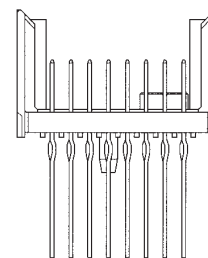
Type A



Type B



Short Tail



Feedthrough

Connector Type	Part Numbers	
	Short Tail	
	8 Row	8+2 Row
A	646346-1	—
B	646347-1	646357-1

Right Angle Female Connectors, 8 Row, Types A and B

Right Angle Female Connectors

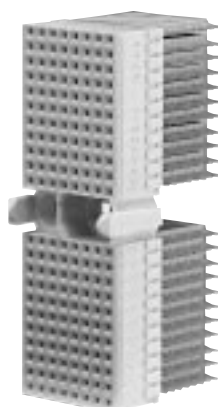
Material and Finish:

Glass filled polyester + LCP housing gray, UL94 V-0 rated

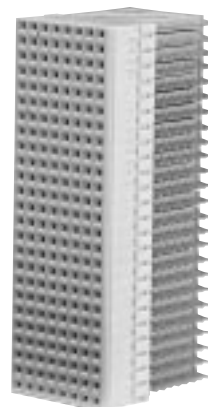
Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

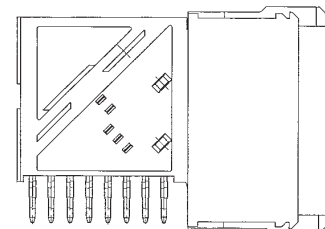
ACTION PIN 0.5µm Sn/Pb over 1.3µm Ni



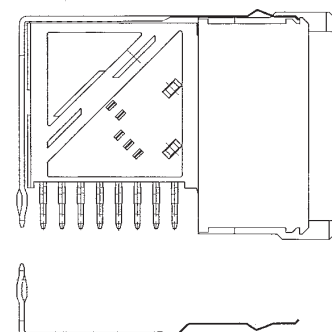
Type A



Type B



Standard



With Shields

Connector Type	Part Numbers		
	Standard	Upper Shield	Lower Shield
A	646352-1	—	—
B	646353-1	9-352155-2	9-352156-2

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65911

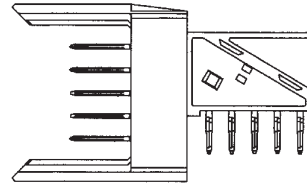
Z-PACK 2mm HM Hard Metric Interconnection System**Right Angle Male Connectors, 5 Row, Types A, B and C****Right Angle Male Connectors****Material and Finish:**

Glass filled polyester housing gray, UL94 V-0 rated

Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

ACTION PIN 0.5µm Sn/Pb over 1.3µm Ni

Printed Circuit Board Connectors (Continued)**Type A Shown****Standard Version**

Connector Type	Part Numbers
	Standard
A	106015-1
B	106014-1
B 22col	352131-1
C	106012-1

Vertical Female Connectors**Material and Finish:**

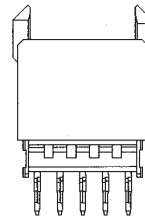
Glass filled polyester housing.

Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

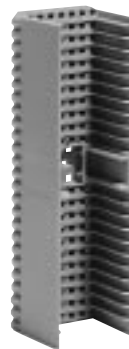
ACTION PIN 0.5µm Sn/Pb over 1.3µm Ni

Connector Type	Part Numbers
A	106773-1
B	106774-1
C	106775-1

**Type A Shown****Type B and C Male Shrouds****Z I F Shrouds****Material and Finish:**

Glass filled polyester housing, gray, UL94 V-0 rated

Shroud Type	Part Numbers
	5 row
B	106138-2
C	106182-2

**Type A Shown****Note:****BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.**For Complete Product Information, Order Catalog 65911**

Z-PACK 2mm HM Hard Metric Interconnection System

Spacers for Male Shrouds

Spacers

Part Number: 106457-2

Thickness: 0.9 [.035]

Material and Finish:

Polyester, gray, UL94 V-0 rated



Type A

Backplane Connectors with 6 DIN Cavities

DIN Contacts

Part Number: 100745-1

Material and Finish:

Glass filled polyester housing.

Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

ACTION PIN 0.5µm Sn/Pb over

1.3µm Ni



Type L

Daughter Board Connectors with 6 DIN Cavities

DIN Contacts

Part Number: 100746-1

Material and Finish:

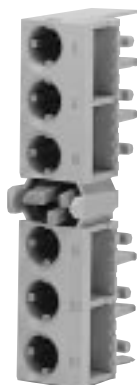
Glass filled polyester housing, gray, UL94 V-0 rated.

Phosphor-bronze signal contacts

Contact area 0.8µm Au over 1.3µm Ni

ACTION PIN 0.5µm Sn/Pb over

1.3µm Ni

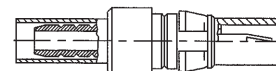


Type L

Coaxial Contacts for Connectors

Coaxial Contacts for Cable Termination

Part Number: 100080-2

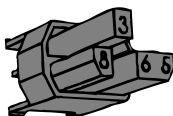


Coding Keys and Contact Loading Variants

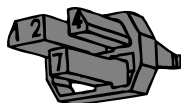
Coding Key Sets with Combinations of Matching Colors and Complementary Numbering

Material and Finish:

Glassfilled Polyamide 6.6.



Key for Male Connectors



Key for Female Connectors

Color	RAL ¹ Number	Male Connector		Female Connector	
		Code No.	Key Part No.	Code No.	Key Part No.
Nut Brown	8011	1236	100525-3	4578	100526-3
Strawberry Red	3018	1248	100525-9	3567	100526-9
Blue Lilac	4005	1356	2-100525-0	2478	2-100526-0
Reseda Green	6011	2578	5-100525-4	1346	5-100526-4
Steel Blue	5011	3478	6-100525-1	1256	6-100526-1
Pastel Orange	2003	—	—	1247	6-100526-3

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

¹ RAL is a Trademark of the Central Organisation for product assurance in Germany.

For Complete Product Information, Order Catalog 65911

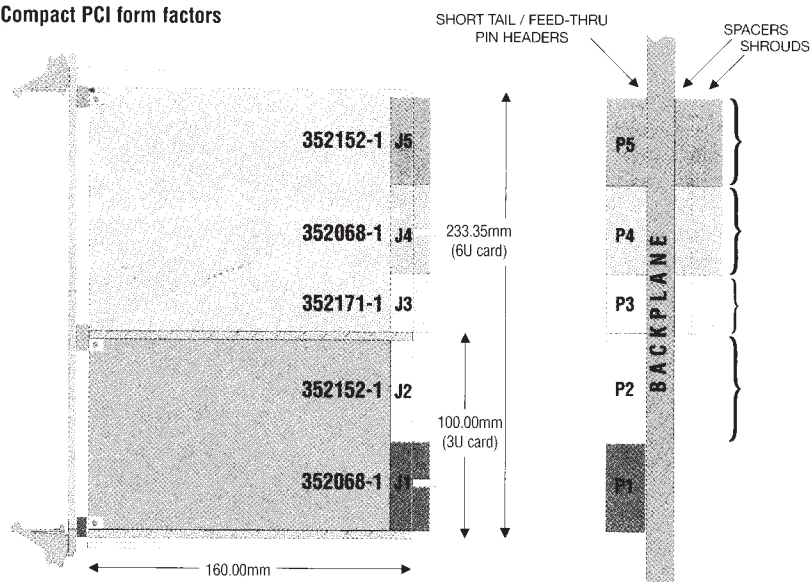
Z-PACK 2mm HM Hard
Metric Interconnection
System

Compact PCI and VME 64

Compact PCI and VME 64
Extensions

Printed Circuit Board Connectors (Continued)

Compact PCI form factors



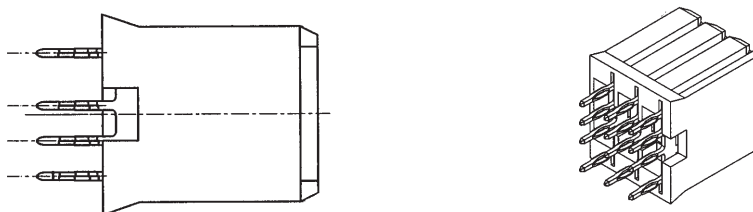
VME Extension Components	Part Number
Backplane Connectors (P0)	
19 column type B header	352033-1
19 column type B header, midplane	352127-1

Compact PCI Components	Part Number
Backplane	
22 column type A header (P1 and P4)	188834-1
22 column type A header, midplane (P1 and P4)	188578-1
Shroud for above	106137-2
22 column type B header (P2 and P5)	188835-1
22 column type B header, midplane (P2 and P5)	352128-1
Shroud for above	352130-2
3.3v key for header P1 and P4	5-100525-6
5v key for header P1 and P4	3-100525-2
System Slot (^) and Peripheral Slot (O) Adapters	
22 col type A shielded receptacle (J1 and J4)	352068-1
22 col type B shielded receptacle (J2 and J5)	352152-1
19 col type B shielded receptacle (J3)	352171-1
3.3v key for receptacle J1 and J4	5-100526-6
5v key for receptacle J1 and J4	3-100526-2

Universal Power Module

Vertical Receptacle

Part Number: 223955-2



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65911

Z-PACK 2mm HM Hard Metric Interconnection System

Universal Power Module

Right Angle Header

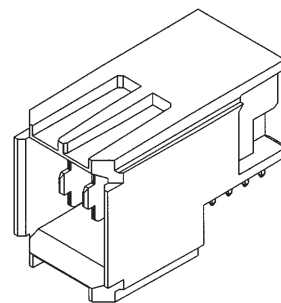
Material and Finish:

Housing — Liquid crystal polymer, natural color

Contacts — Phosphor bronze, plated 0.00127 [.000050] min. gold in mating area, 0.00050 [.000020] min. tin-lead on ACTION PIN post area, with entire contact underplated 0.00127 [.000050] min. nickel

Printed Circuit Board Connectors (Continued)

Blade Length Dimensions			Right-Angle Header Part Numbers
Position A	Position B	Position C	
10.90 [.429]	10.90 [.429]	10.90 [.429]	223961-1
9.30 [.366]	10.90 [.429]	9.30 [.366]	223963-1
9.30 [.366]	10.90 [.429]	7.68 [.302]	223964-1
9.30 [.366]	7.68 [.302]	9.30 [.366]	223965-1



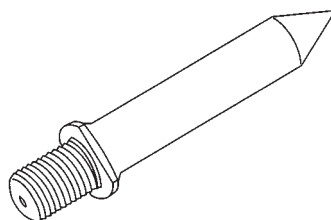
Guiding Hardware

Guide Pin

Part Number: 223956-1

Material and Finish:

Passivated stainless steel.



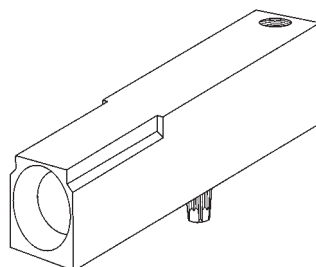
Guiding Hardware

Female Guide Module

Part Number: 223957-1

Material and Finish:

Zinc alloy, chromate conversion coated.



Guiding Hardware

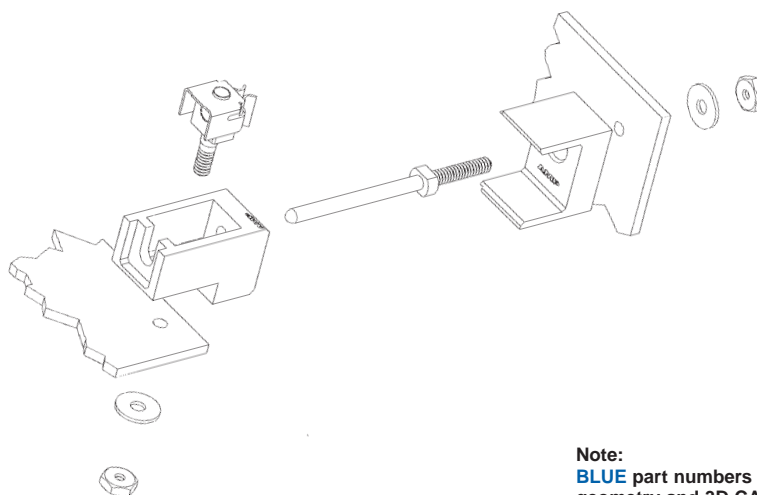
Static Discharge Guide Pins

Material and Finish:

Housing — Glass filled polyester gray, UL94 V-0 rating

Contacts — Pin Brass
Receptacle Copper alloy Plating,
0.8µm Au in contact area over
0.8µm min Ni

Type	Part Numbers
Pin Contact	532828-5
Pin Contact Housing	646274-1
Rec Contact Housing	646273-1



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

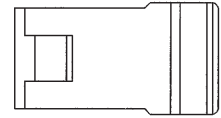
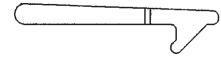
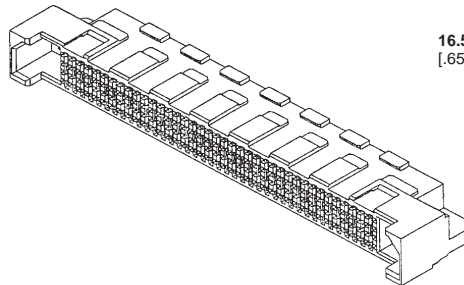
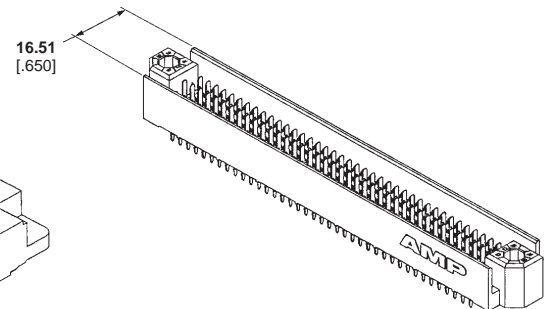
For Complete Product Information, Order Catalog 65911

Z-PACK 2mm HM Hard Metric Interconnection System**5 Column Male Shrouds for Cable Connectors****Male Shroud****Part Number:** 106961-1**Material:**

Glass filled polyester, gray; rating UL94V-0

**Printed Circuit Board Connectors** (Continued)**5 Column Male Shrouds for Cable Connectors****Snap Latches****Part Number:** 620729-1**Material:**

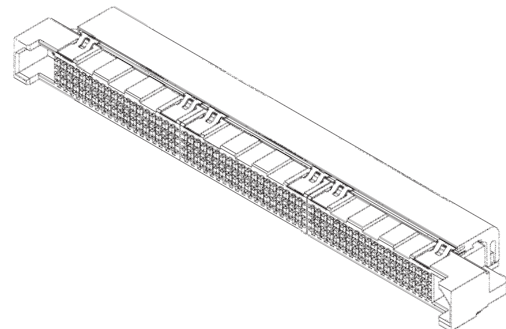
Glass filled polyester, gray; rating UL94V-0

**For Complete Product Information, Order Catalog 65911****Z-PACK Stripline 100 Discretely Molded Receptacle and Pin Assemblies****Receptacle Assembly****Pin Assembly**

No. of Positions	Receptacle Assembly	Pin Assembly	
	4.19 [.165] Solder Leads	3.68 [1.45] ACTION PIN Contact Leads	3.68 [1.45] Solder Leads
180	646243-4	646244-4	646245-4
220	646243-5	—	646245-5

Z-PACK Stripline 100 Modular Receptacle Assemblies**4.19 [.165] Solder Lead Length**

No. of Positions	Part Numbers
260	646236-2
300	646236-4
340	646236-6

**Note:**

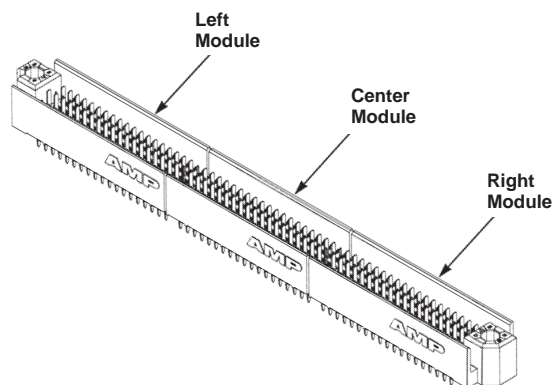
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65194

Z-PACK 2mm FB (Futurebus+) Connectors

Z-PACK Stripline 100
Modular Vertical Pin
Assemblies with ACTION PIN
Thin Stock Contacts

Printed Circuit Board Connectors (Continued)



Lead Length	Power/Ground Blade Length	Module Selection		
		Left Module 80 Pos.	Center Module 80 Pos.	Right Module 60 Pos.
3.68 [.145]	6.02 [.237]	646239-2	646238-2	646237-1
13.59 [.535]	6.02 [.237]	—	646188-2	—

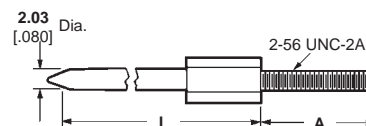
Z-PACK Stripline 100 Guidance, Power and Keying Hardware and Applications

Guide/Power Pins

Material and Finish:

Brass, plated 0.00076 [.000030]
gold over 0.00127 [.000050] min.
nickel (unless indicated otherwise)

Dimensions		Part Numbers
A	L	
	1.025 [26.04]	533082-1
.375 [9.52]	1.025 [26.04]	533082-3
	1.195 [30.35]	533082-4
.475 [12.06]	1.195 [30.35]	533082-6
.475 [12.06]	1.025 [26.04]	533082-9

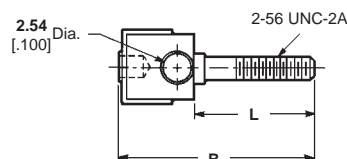


Guide Pin/Power Receptacles

Material and Finish:

Brass, plated 0.00076 [.000030]
gold in contact area and gold flash
on remainder, with entire contact
underplated 0.00127 [.000050]
min. nickel

Dimensions		Part Numbers
B	L	
.678 [17.22]	.425 [10.80]	532924-1
.578 [14.68]	.325 [8.26]	532924-3
.538 [13.67]	.285 [7.25]	532924-4



Power Guide Pins

Dimensions		Part Numbers
A	B	
.560 [14.22]	1.025 [26.04]	1-533082-1

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 65194

High-Density Stacking Connector (for VESA® FPD1™ & FPD1-1b Applications)

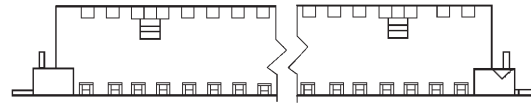
Material and Finish

Housing — Liquid-crystal polymer

Contacts — Phosphor Bronze tin-lead over nickel plating

Printed Circuit Board Connectors (Continued)

No. of Pos.	Part Numbers	
	Without Guide Posts w/o Vacuum Cover	
21	—	
31	120549-1	
41	120549-2	
51	—	



For Complete Product Information, Order Catalog 889035

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.6mm Free Height
Receptacles, 0.6 [.024] Pitch

4H (4mm) Stacking Height

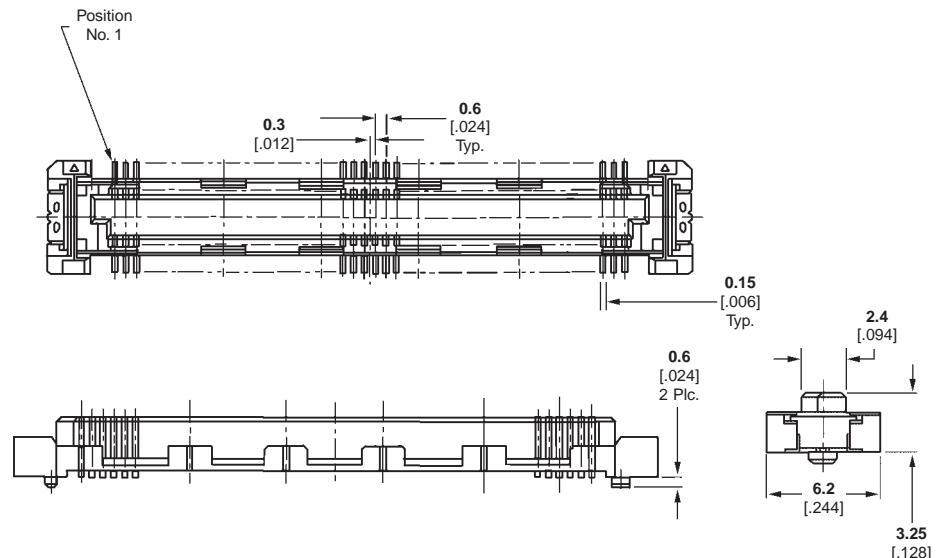
Note: All receptacles include common ground contacts that mate with standard plug assemblies or GIGA plug assemblies with ground plates.

Material and Finish:

Housing — High temperature thermoplastic, 94V-0 rated

Signal Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00005 [.000002] min. gold on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

Ground Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel



Stacking Height	No. of Positions	Part Numbers	
		Tray Packaged	Tape Packaged
4H	50	316077-3	—
	80	—	353190-6
	140	1-316077-0	1-353190-0

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.6mm Free Height GIGA Plugs, 0.6 [.024] Pitch

4H (4mm), 6H (6mm) and 8H (8mm) Stacking Heights

Note: All GIGA plugs include ground plates that mate with receptacles with common ground contacts..

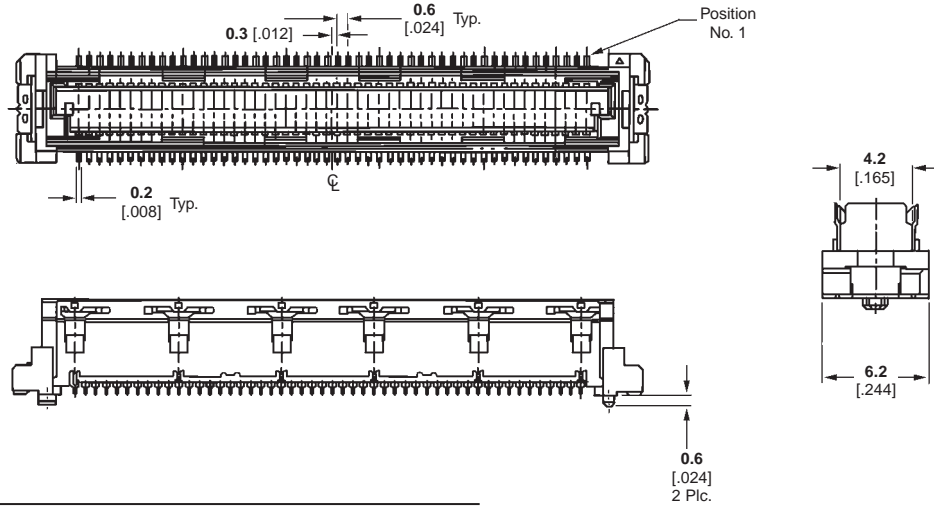
Material and Finish:

Housing — High temperature thermoplastic, 94V-0 rated

Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

Ground Plates — Phosphor bronze, plated 0.00300-0.00500 [.000120-.000200] tin-lead over 0.00050 [.000020] copper

Printed Circuit Board Connectors (Continued)



Stacking Height	No. of Positions	Part Numbers	
		Tray Packaged	Tape Packaged
4H	50	316076-3	—
	140	—	1-353184-0
8H	140	—	1-353188-0

0.6mm Free Height Bridge Receptacle, 0.6 [.024] Pitch

4H (4mm) Double Row Stacking Height

Part Number: 1-353206-0 (280-Position)

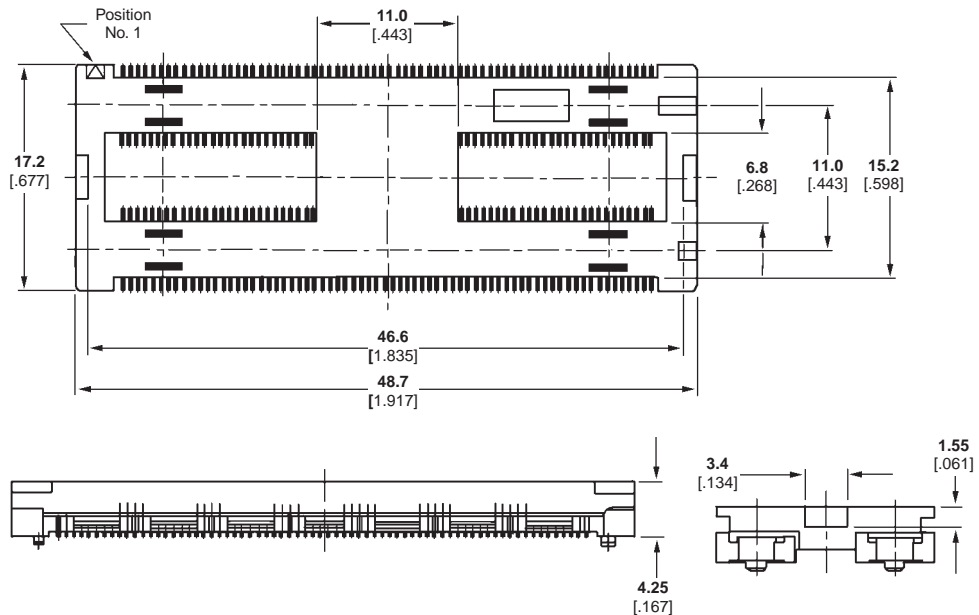
Note: Receptacle includes common ground contacts that mate with standard plug assemblies or GIGA plug assemblies with ground plates.

Material and Finish:

Housing — High temperature thermoplastic, 94V-0 rated

Signal Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00005 [.000002] min. gold on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

Ground Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel



For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.6mm Free Height Standard Bridge Plugs, 0.6 [.024] Pitch

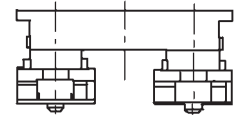
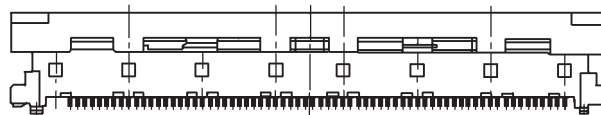
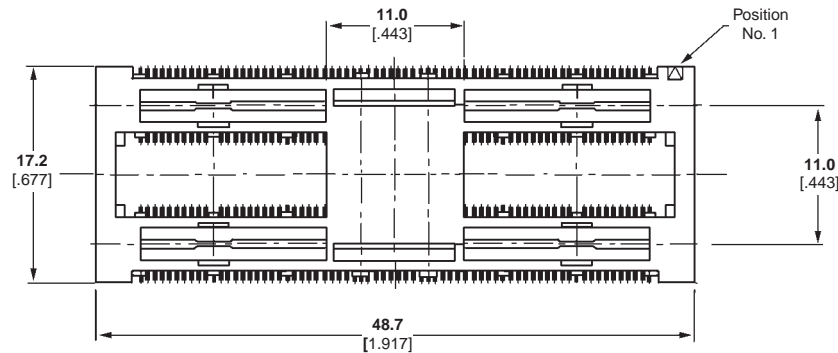
4H (4mm), 6H (6mm) and 8H (8mm) Double Row Stacking Heights

280 Positions

Material and Finish:

Housing — High temperature thermoplastic, 94V-0 rated

Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel



Stacking Height	Part Numbers (Tape Packaged)
4H	1-353284-0

0.6mm Free Height GIGA Bridge Plugs, 0.6 [.024] Pitch

4H (4mm), 6H (6mm) and 8H (8mm) Double Row Stacking Heights

280 Positions

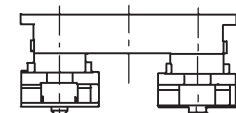
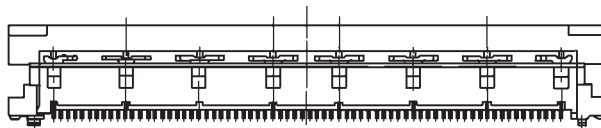
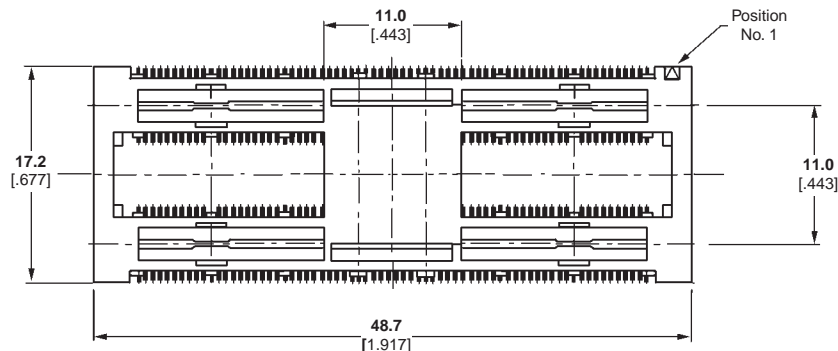
Note: All GIGA plugs include ground plates that mate with receptacles with common ground contacts.

Material and Finish:

Housing — High temperature thermoplastic, 94V-0 rated

Contacts — Copper alloy; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

Ground Plates — Phosphor bronze, plated 0.00300-0.00500 [.000120-.000200] tin-lead over 0.00050 [.000020] copper



Stacking Height	Part Numbers (Tape Packaged)
4H	1-353231-0
6H	1-353232-0
8H	1-353233-0

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

MITCOR Vertical Plugs, 0.64
[.025] Pitch

6.60 [.260]
Stacking Height

Material and Finish:

Housing — Liquid crystal polymer,
black

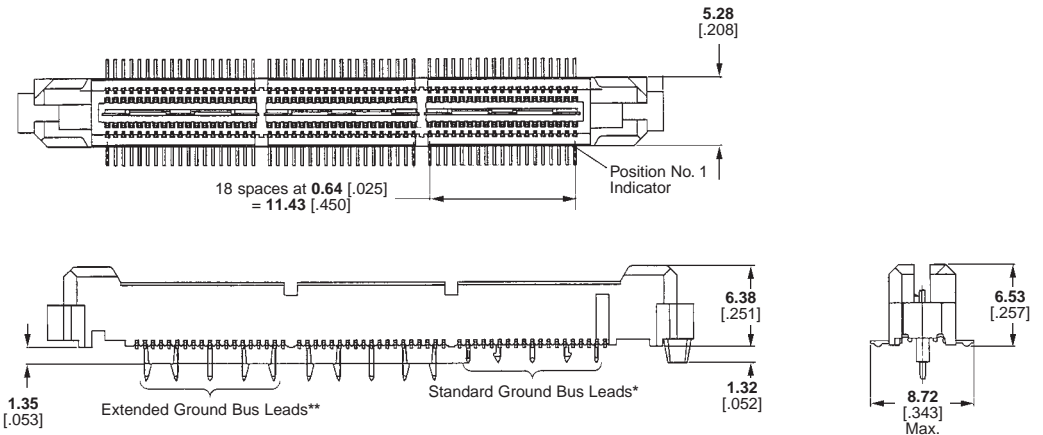
Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex
plated 0.00076 [.000030] min. gold in
mating area, 0.00381 [.000150] min.
tin-lead on leads, with entire contact and
ground bus underplated 0.00178
[.000070] min. nickel

Contacts and Ground Bus — Duplex
plated 0.000013 [.000005] min. gold
over 0.00076 [.000030] min. palladium-
nickel in mating area, 0.00381
[.000150] min. tin-lead on leads, with
entire contact and ground bus under-
plated 0.00178 [.000070] min. nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Plug Part Numbers	
	Gold Plating	Palladium-Nickel Plating
38	—	767056-1
76	767007-9	—
114	1-767007-0	—
152	1-767007-1	—
190	1-767007-2	—
228	1-767007-3	—

MITCOR Vertical Plugs, 0.64
[.025] Pitch

10.92 [.430]
Stacking Height

Material and Finish:

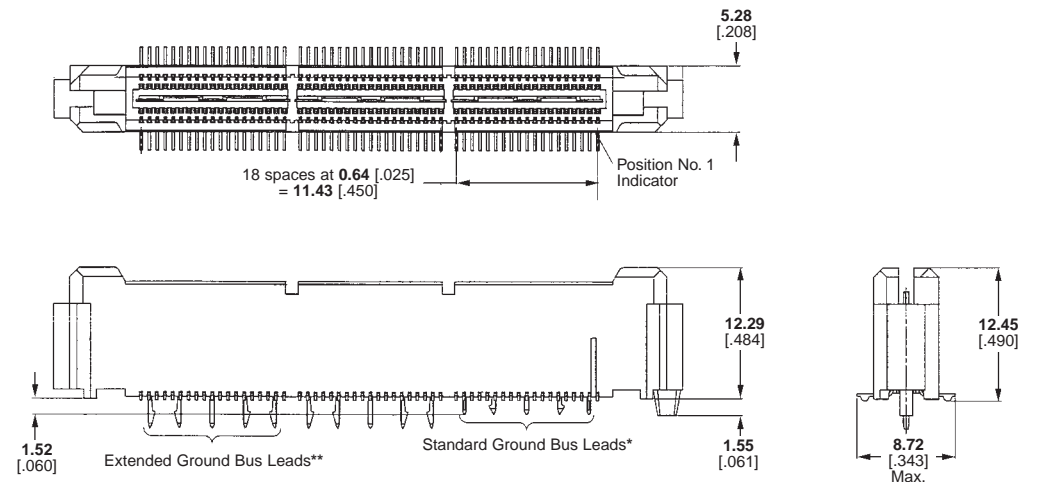
Housing — Liquid crystal polymer,
black

Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex
plated 0.00076 [.000030] min. gold in
mating area, 0.00381 [.000150] min.
tin-lead on leads, with entire contact and
ground bus underplated 0.00178
[.000070] min. nickel

Contacts and Ground Bus — Duplex
plated 0.000013 [.000005] min. gold
over 0.00076 [.000030] min. palladium-
nickel in mating area, 0.00381
[.000150] min. tin-lead on leads, with
entire contact and ground bus under-
plated 0.00178 [.000070] min. nickel



No. of Positions	Plug Part Numbers	
	Gold Plating	Palladium-Nickel Plating
38	767003-8	—
76	767003-9	—
114	1-767003-0	—
152	1-767003-1	—
190	1-767003-2	—
266	1-767003-4	—

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

MICTOR Vertical Plugs, 0.64
[.025] Pitch

12.57 [.495]
Stacking Height

Material and Finish:

Housing — Liquid crystal polymer,
black

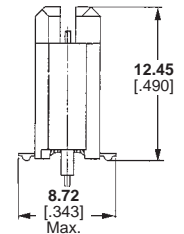
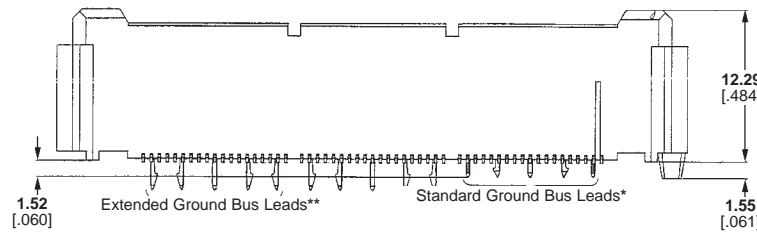
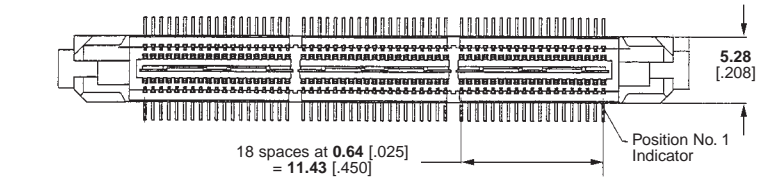
Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex
plated 0.00076 [.000030] min. gold in
mating area, 0.00381 [.000150] min.
tin-lead on leads, with entire contact and
ground bus underplated 0.00178
[.000070] min. nickel

Contacts and Ground Bus — Duplex
plated 0.000013 [.000005] min. gold
over 0.00076 [.000030] min. palladium-
nickel in mating area, 0.00381
[.000150] min. tin-lead on leads, with
entire contact and ground bus under-
plated 0.00178 [.000070] min. nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Plug Part Numbers
	Gold Plating
76	767005-9
114	1-767005-0
152	1-767005-1

MICTOR Vertical Plugs, 0.64
[.025] Pitch

17.96 [.707]
Stacking Height

Material and Finish:

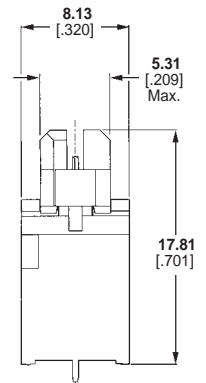
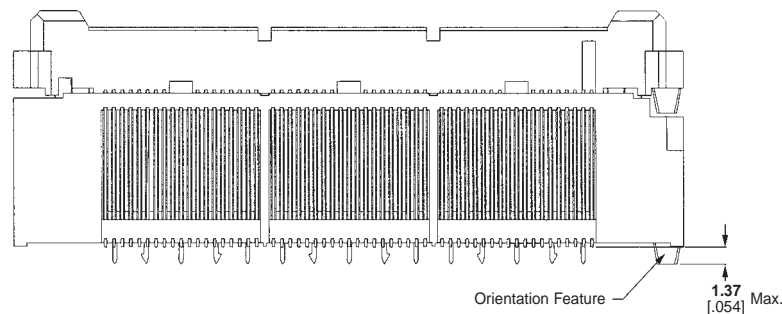
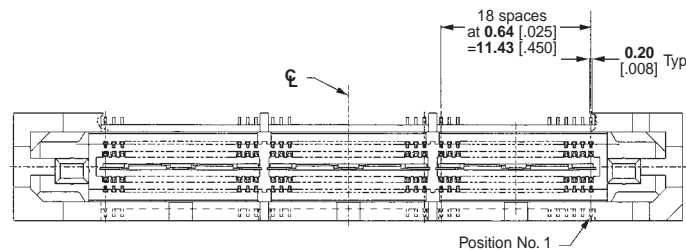
Housing — Liquid crystal polymer,
black

Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex
plated 0.00076 [.000030] min. gold in
mating area, 0.00381 [.000150] min.
tin-lead on leads, with entire contact and
ground bus underplated 0.00178
[.000070] min. nickel

Contacts and Ground Bus — Duplex
plated 0.000013 [.000005] min. gold
over 0.00076 [.000030] min. palladium-
nickel in mating area, 0.00381
[.000150] min. tin-lead on leads, with
entire contact and ground bus under-
plated 0.00178 [.000070] min. nickel



No. of Positions	Plug Part Numbers
	Gold Plating
114	767025-3
266	767025-7

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

MICTOR Vertical Plugs, 0.64
[.025] Pitch

18.75 [.738]
Stacking Height

Material and Finish:

Housing — Liquid crystal polymer, black

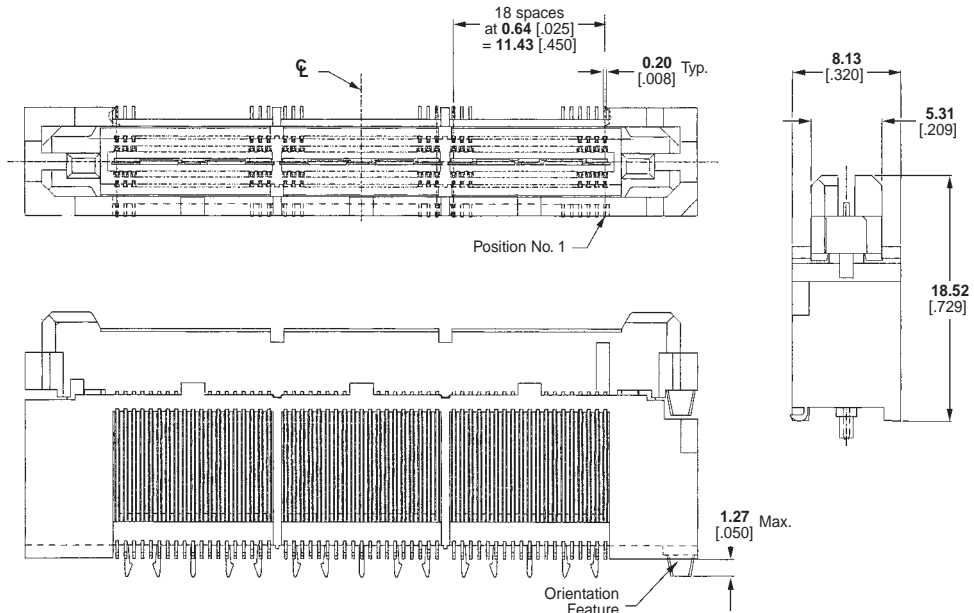
Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex plated 0.00076 [.000030] min. gold in mating area, 0.00381 [.000150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [.000070] min. nickel

Contacts and Ground Bus — Duplex plated 0.000013 [.000005] min. gold over 0.00076 [.000030] min. palladium-nickel in mating area, 0.00381 [.000150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [.000070] min. nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Plug Part Numbers Gold Plating
114	767042-3
190	767042-5

MICTOR Vertical Plugs, 0.64
[.025] Pitch

20.02 [.788]
Stacking Height

Material and Finish:

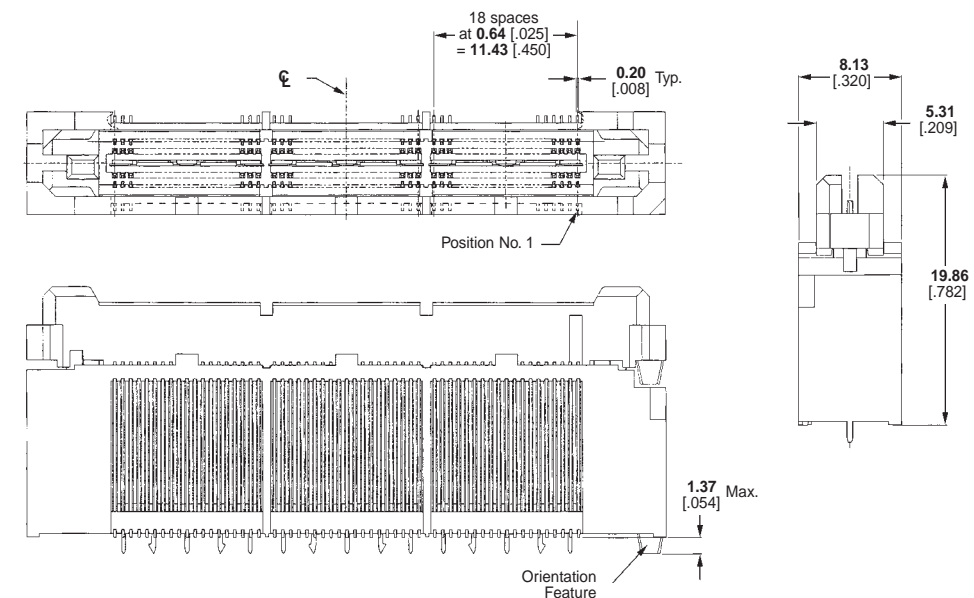
Housing — Liquid crystal polymer, black

Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex plated 0.00076 [.000030] min. gold in mating area, 0.00381 [.000150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [.000070] min. nickel

Contacts and Ground Bus — Duplex plated 0.000013 [.000005] min. gold over 0.00076 [.000030] min. palladium-nickel in mating area, 0.00381 [.000150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [.000070] min. nickel



No. of Positions	Plug Part Numbers Gold Plating
152	767032-4
266	767032-7

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

MICTOR Vertical Plugs, 0.64
[.025] Pitch

22.86 [.900]
Stacking Height

Material and Finish:

Housing — Liquid crystal polymer,
black

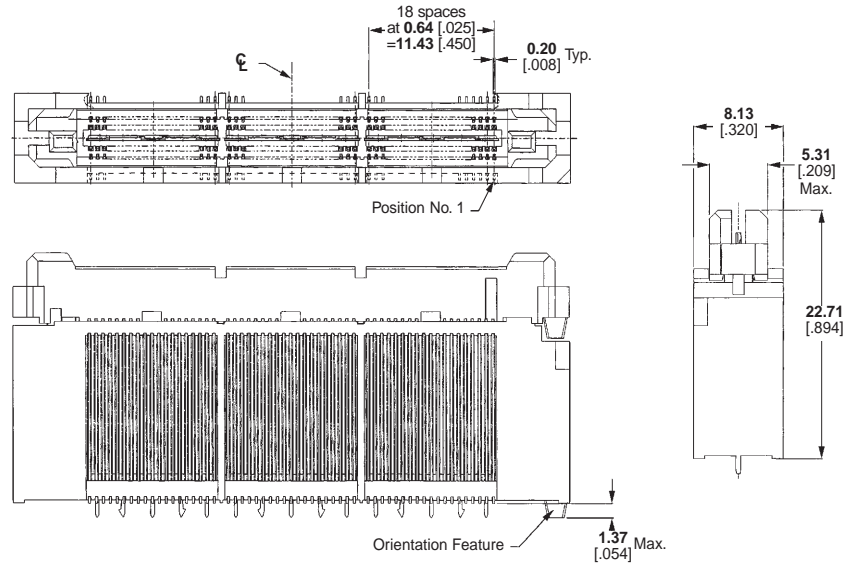
Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex
plated 0.00076 [.000030] min. gold in
mating area, 0.00381 [.000150] min.
tin-lead on leads, with entire contact and
ground bus underplated 0.00178
[.000070] min. nickel

Contacts and Ground Bus — Duplex
plated 0.000013 [.000005] min. gold
over 0.00076 [.000030] min. palladium-
nickel in mating area, 0.00381
[.000150] min. tin-lead on leads, with
entire contact and ground bus under-
plated 0.00178 [.000070] min. nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Plug Part Numbers	
	Gold Plating	
114	767017-3	

MICTOR Vertical Receptacles,
0.64 [.025] Pitch

Material and Finish:

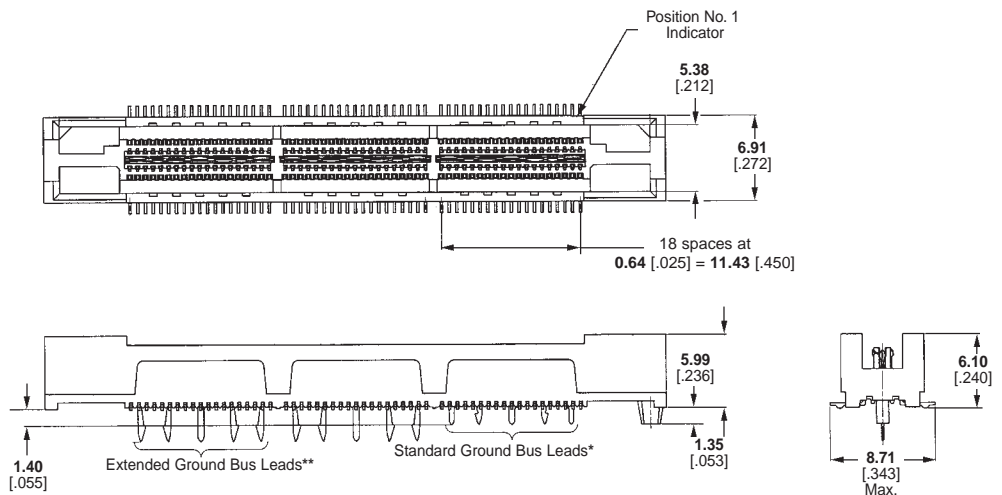
Housing — Liquid crystal polymer,
black

Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex
plated 0.00076 [.000030] min. gold in
mating area, 0.00381 [.000150] min.
tin-lead on leads, with entire contact and
ground bus underplated 0.00178
[.000070] min. nickel

Contacts and Ground Bus — Duplex
plated 0.000013 [.000005] min. gold
over 0.00076 [.000030] min. palladium-
nickel in mating area, 0.00381
[.000150] min. tin-lead on leads, with
entire contact and ground bus under-
plated 0.00178 [.000070] min. nickel



No. of Positions	Plug Part Numbers	
	Gold Plating	Palladium-Nickel Plating
38	2-767004-2	767054-1
76	2-767004-3	—
114	2-767004-4	—
152	2-767004-5	—
190	2-767004-6	—
228	2-767004-7	—
266	2-767004-8	767054-7

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

MITOR Right-Angle Plugs

Material and Finish:

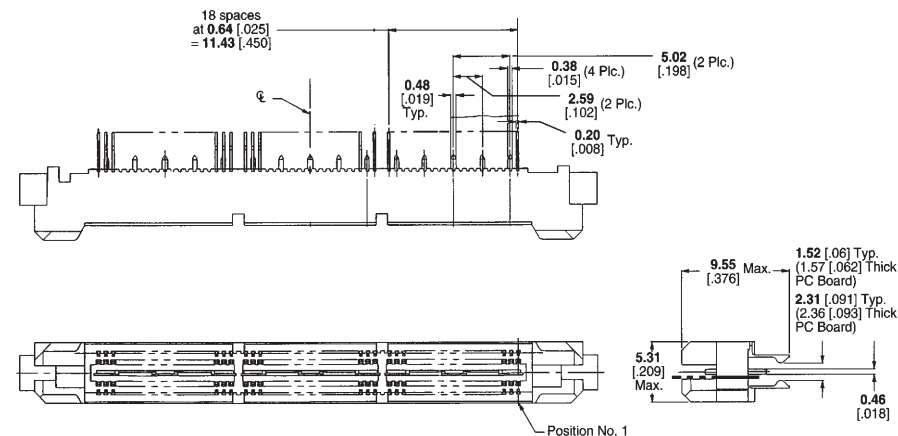
Housing — Liquid crystal polymer, black

Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex plated 0.00076 [0.00030] min. gold in mating area, 0.00381 [0.00150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [0.00070] min. nickel

Contacts and Ground Bus — Duplex plated 0.000013 [0.000005] min. gold over 0.00076 [0.00030] min. palladium-nickel in mating area, 0.00381 [0.00150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [0.00070] min. nickel



No. of Positions	Part Numbers		
	1.57 [0.062] PC Boards Gold Plating	Palladium-Nickel Plating	2.36 [0.093] PC Boards Palladium-Nickel Plating
38	—	767055-1	—
114	767006-3	—	—
190	767006-5	—	767039-5
228	767006-6	—	767039-6
266	—	—	767039-7

MITOR Right-Angle Receptacles

Material and Finish:

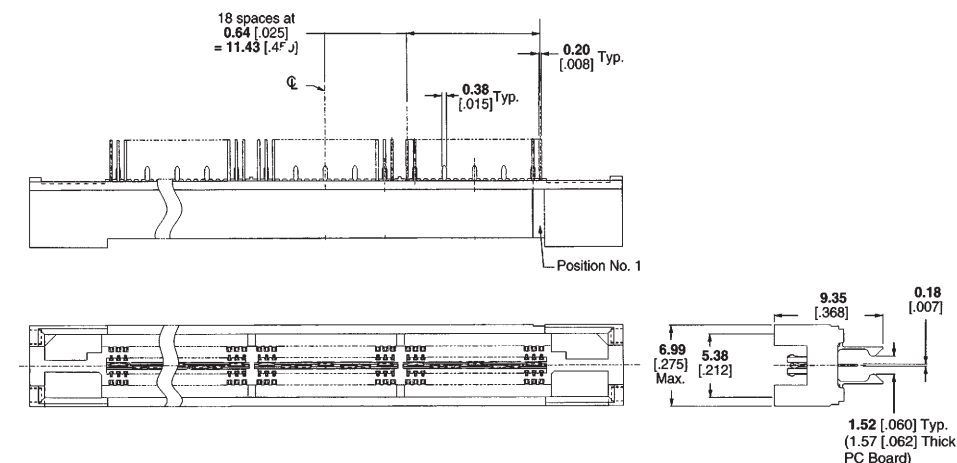
Housing — Liquid crystal polymer, black

Contacts — Beryllium copper

Ground Bus — Phosphor bronze

Contacts and Ground Bus — Duplex plated 0.00076 [0.00030] min. gold in mating area, 0.00381 [0.00150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [0.00070] min. nickel

Contacts and Ground Bus — Duplex plated 0.000013 [0.000005] min. gold over 0.00076 [0.00030] min. palladium-nickel in mating area, 0.00381 [0.00150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [0.00070] min. nickel



No. of Positions	Part Numbers (Palladium-Nickel Plating)
38	767044-1
76	767044-2

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65194

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.8mm Fine Stack Plugs and Caps, 0.8 [.031] Pitch

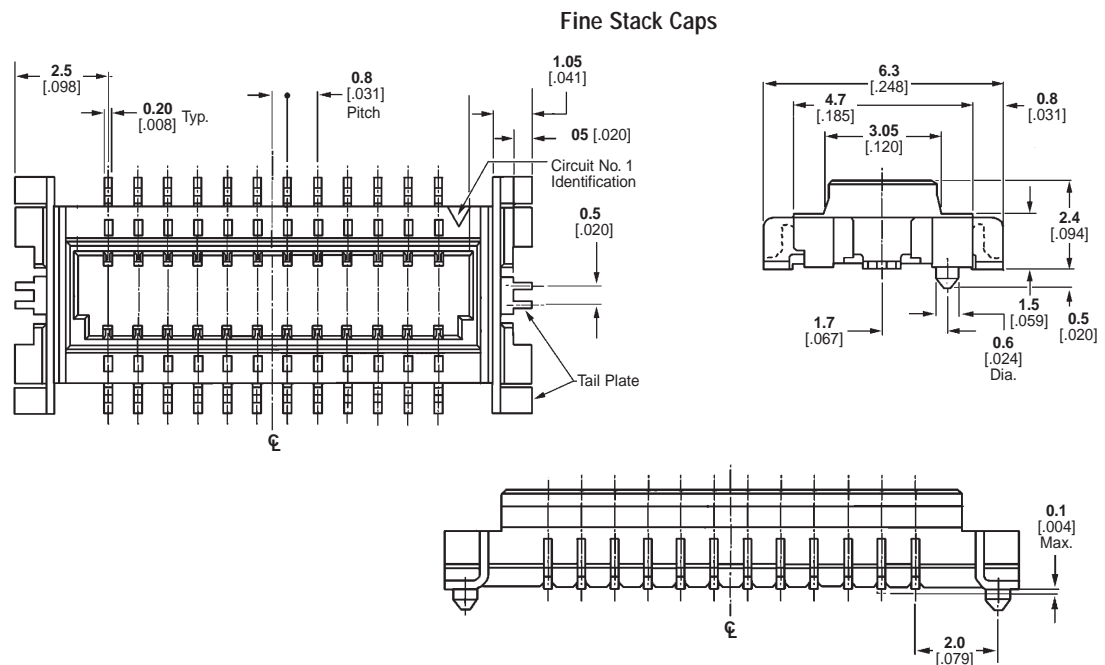
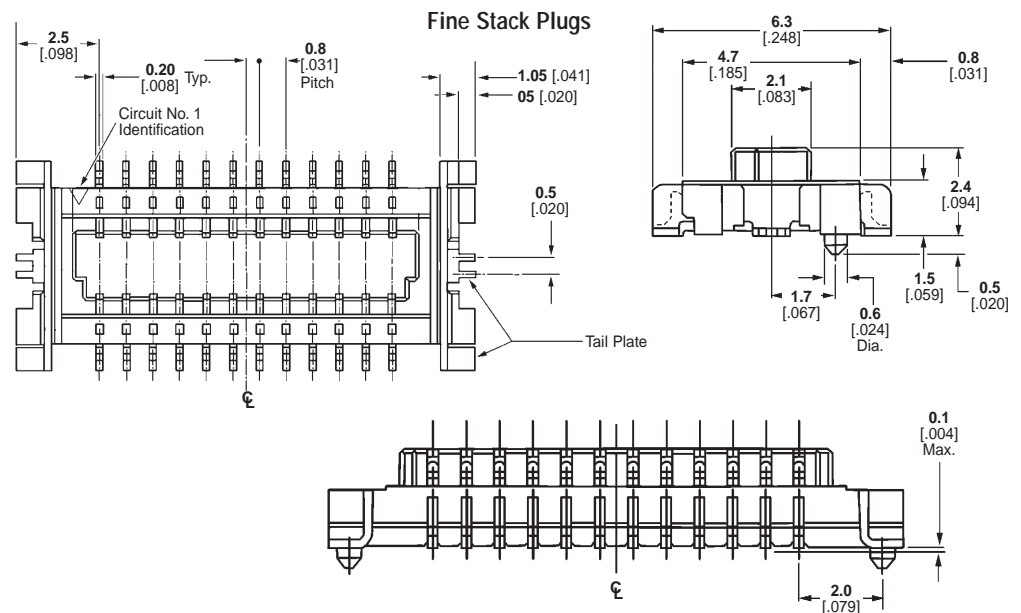
3.0 [.118] Stacking Height

Material and Finish:

Housing — 6T nylon, high heat resistant resin

Contacts — Phosphor bronze, plated AMP-DURAGOLD or tin-lead on contact area (see chart), tin-lead on solder leads, with entire contact underplated nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Keyed	With Boss	Plug Part Numbers		Cap Part Numbers	
			Tin Plated Contacts	Gold Plated Contacts	Tin Plated Contacts	Gold Plated Contacts
16	Yes	Yes	1-179396-6	—	1-767044-1	—
	Yes	No	—	—	1-179403-6	—
24	Yes	Yes	2-179396-4	—	—	—
40	Yes	Yes	4-179396-0	4-179701-0	4-179397-0	4-179703-0

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.8mm Fine Mate Receptacles and Tabs, 0.8 [.031] Pitch

4.0 [.157] and 4.5 [.177] Stacking Heights

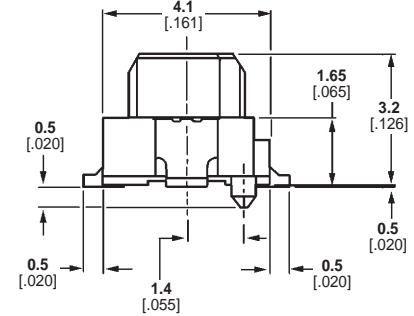
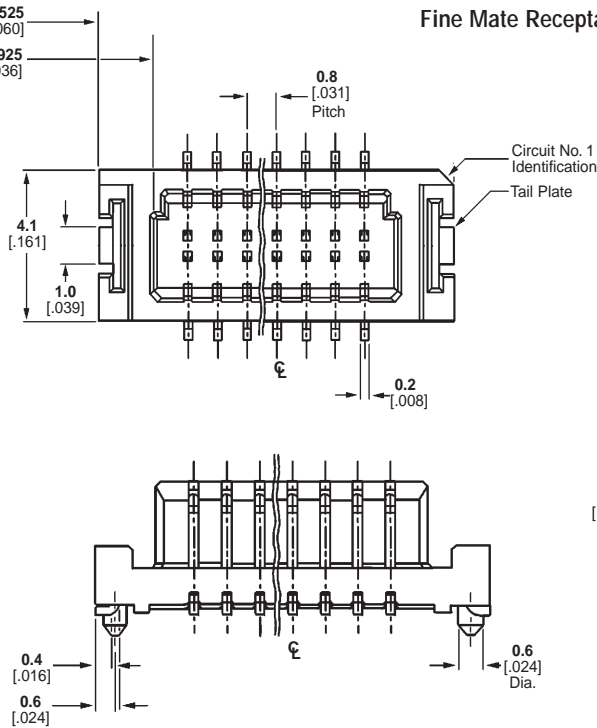
Material and Finish:

Housing — 6T nylon, high heat resistant resin

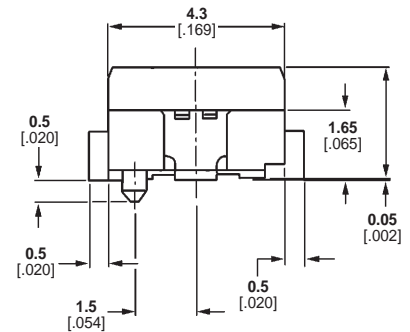
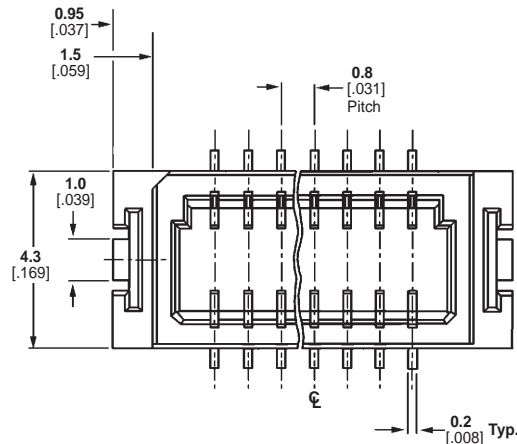
Contacts — Copper alloy, plated AMP-DURAGOLD or tin-lead on contact area (see chart), tin-lead on solder leads, with entire contact underplated nickel

Printed Circuit Board Connectors (Continued)

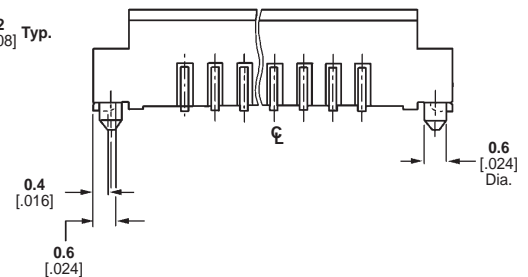
Fine Mate Receptacles



Fine Mate Tabs



No. of Positions	Keyed	With Boss	Receptacle Part No. Gold Plated Contacts	Tab Part No. Gold Plated Contacts
50	Yes	Yes	5-316464-0	5-316466-0
60	Yes	Yes	6-917408-0	6-316514-0



For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.8mm Free Height Vertical Plugs, 0.8 [.031] Pitch

Material and Finish:

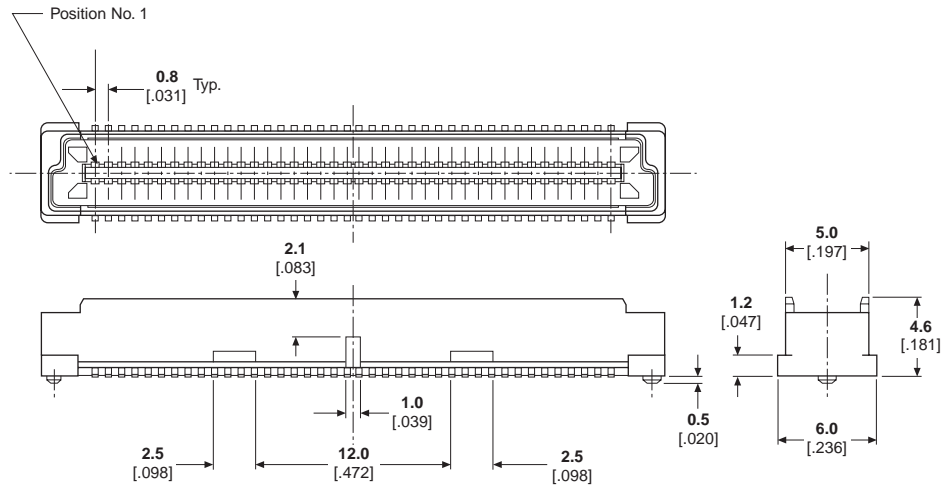
Housing — High temperature thermo-plastic, natural color, 94V-0 rated

Contacts — Brass; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

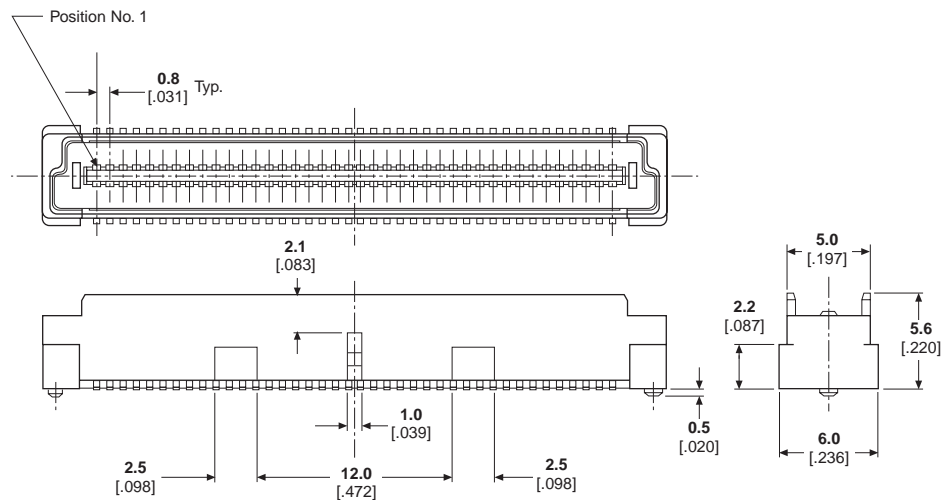
See page 214 for part numbers.

Printed Circuit Board Connectors (Continued)

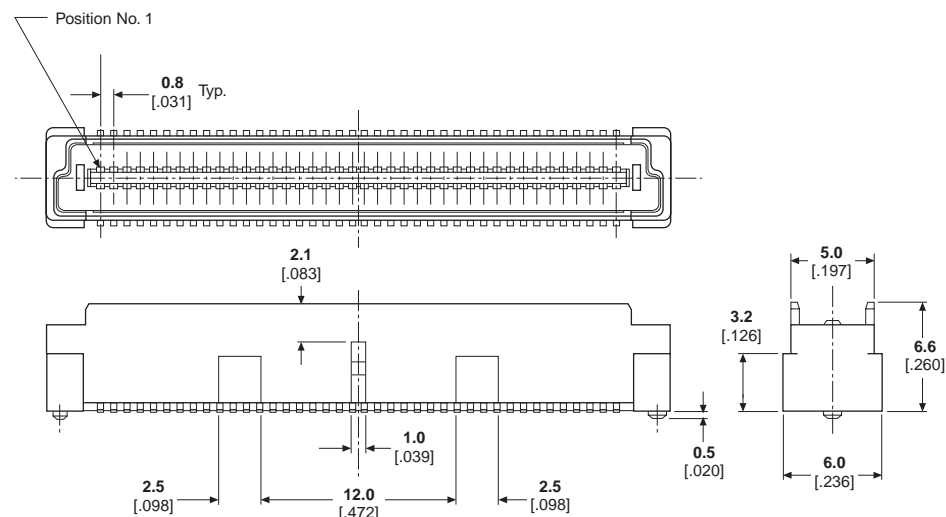
5mm Plugs for 5 [.197], 9 [.354] and 13 [.512] Stacking Heights



6mm Plugs for 6 [.236], 10 [.394] and 14 [.551] Stacking Heights



7mm Plugs for 7 [.276], 11 [.433] and 15 [.591] Stacking Heights



For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.8mm Free Height Vertical Plugs, 0.8 [.031] Pitch

Material and Finish:

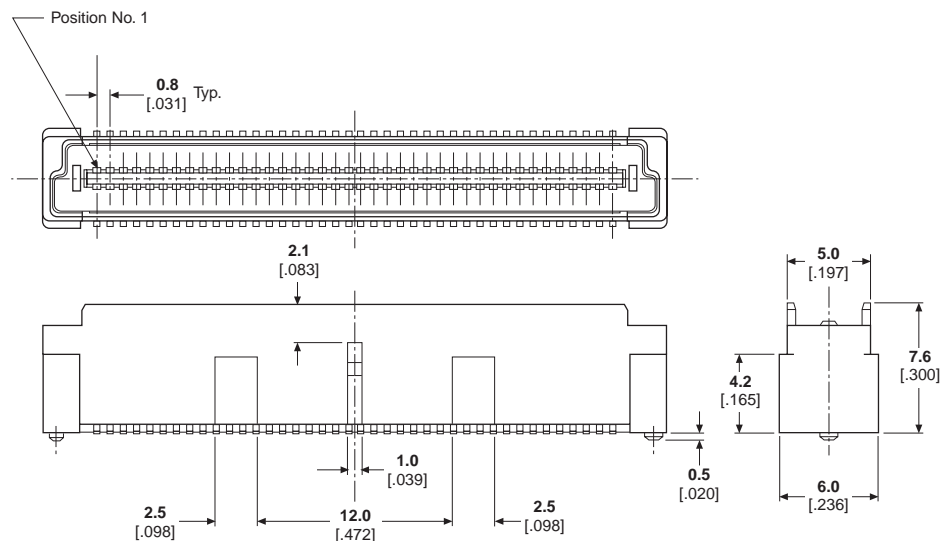
Housing — High temperature thermo-plastic, natural color, 94V-0 rated

Contacts — Brass; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

See page 213 for specifications.

Printed Circuit Board Connectors (Continued)

8mm Plugs for 8 [.315], 12 [.472] and 16 [.630] Stacking Heights



No. of Positions	5mm Part Numbers		6mm Part Numbers		7mm Part Numbers		8mm Part Numbers	
	Tube Packaged	Tape Packaged ¹	Tube Packaged	Tape Packaged ¹	Tube Packaged	Tape Packaged ¹	Tube Packaged	Tape Packaged ¹
40	177984-1	177986-1	179029-1	—	179030-1	—	—	3-177986-1
60	177984-2	—	179029-2	—	—	2-177986-2	179031-2	3-177986-2
80	177984-3	177986-3	—	—	—	—	179031-3	—
100	177984-4	—	179029-4	—	179030-4	—	—	3-177986-4
120	177984-5	177986-5	179029-5	—	179030-5	2-177986-5	179031-5	—
140	177984-6	—	—	—	179030-6	—	179031-6	—
160	177984-7	—	—	—	—	—	—	—
200	1-177984-0	—	—	—	1-179030-0	—	—	—

¹With steel cover for automatic placement.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.8mm Free Height Vertical Receptacles, 0.8 [.031] Pitch

Material and Finish:

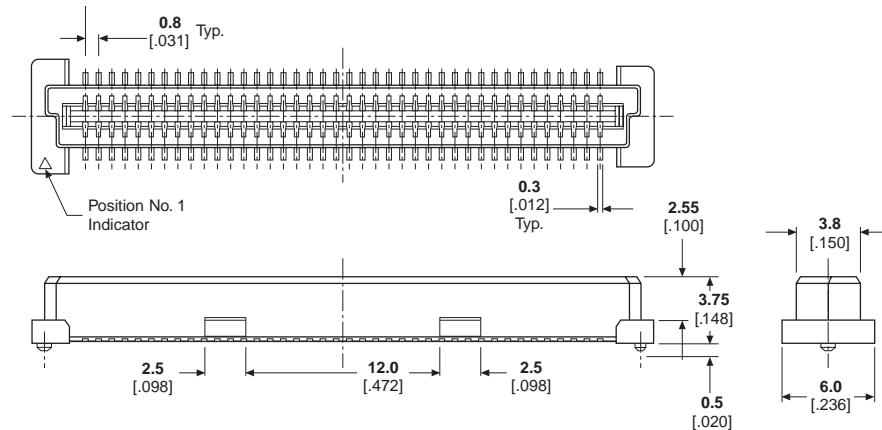
Housing — High temperature thermo-plastic, natural color, 94V-0 rated

Contacts — Beryllium copper; duplex plated 0.00020 [.000008] min. gold on contact area, 0.00100 [.000039] min. tin-lead on solder area, with entire contact underplated 0.00130 [.000051] min. nickel

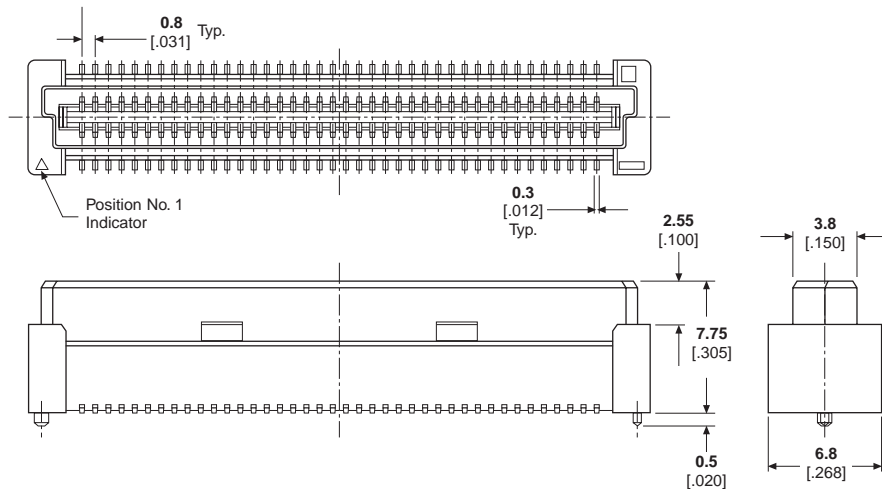
See page 216 for part numbers.

Printed Circuit Board Connectors (Continued)

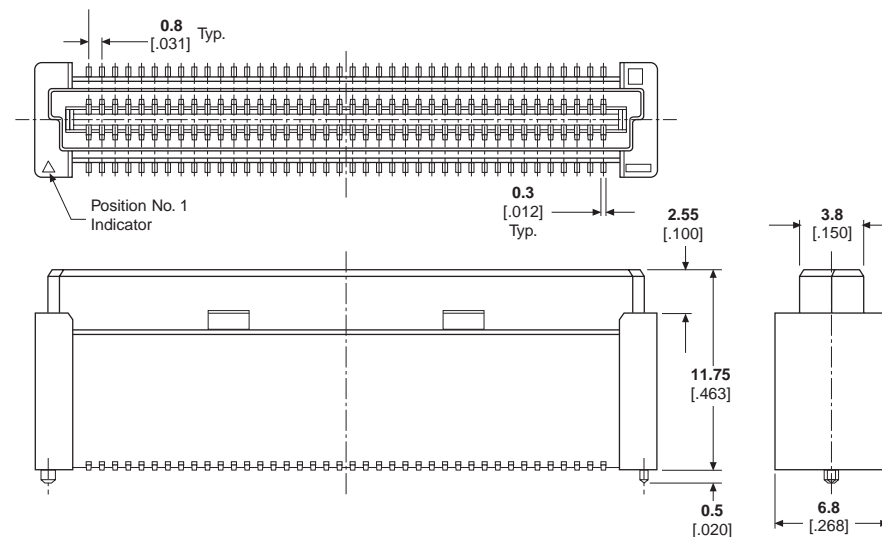
5mm Receptacles for 5 [.197], 6 [.236], 7 [.276] and 8 [.315] Stacking Heights



9mm Receptacles for 9 [.354], 10 [.394], 11 [.433] and 12 [.472] Stacking Heights



13mm Receptacles for 13 [.512], 14 [.551], 15 [.591] and 16 [.630] Stacking Heights



For Complete Product Information, Order Catalog 889092

Fine Pitch SMT Stacking Connectors (Parallel Board-to-Board)

0.8mm Free Height Vertical Receptacles, 0.8 [.031] Pitch

See page 215 for part numbers.

Printed Circuit Board Connectors (Continued)

No. of Positions	5mm Part Numbers		9mm Part Numbers		13mm Part Numbers
	Tube Packaged	Tape Packaged ¹	Tube Packaged	Tape Packaged ¹	Tube Packaged
40	177983-1	177985-1	5-179009-1	—	5-179010-1
60	177983-2	177985-2	5-179009-2	—	5-179010-2
80	177983-3	177985-3	5-179009-3	5-179180-3	5-179010-3
100	177983-4	—	5-179009-4	—	5-179010-4
120	177983-5	177985-5	5-179009-5	—	5-179010-5
140	177983-6	—	5-179009-6	—	5-179010-6
160	177983-8	—	5-179009-7	—	—
200	1-177983-0	—	5-179009-8	—	—

¹With steel cover for automatic placement.

1.0mm FH (IEEE 1386) Connectors



Board-to-Board Stacking Heights (By Receptacle/Plug Combinations)

No. of Positions	Stacking Height	Part Numbers		
		With Locating Posts	With Vacuum Cover	
		Plug	Receptacle	Plug
64	8 [.315]	—	120528-1	—
	9 [.354]	120526-1	120528-1	—
	10 [.394]	120527-1	120528-1	—
	11 [.433]	120526-1	—	—
	12 [.472]	120527-1	—	—
	13 [.512]	120527-1	—	—
	14 [.551]	120526-1	120531-1	—
	15 [.591]	120527-1	120531-1	120534-1
84	8 [.315]	—	120528-2	—
	9 [.354]	—	120528-2	120533-2
	10 [.394]	—	120528-2	120534-2
	11 [.433]	—	—	120533-2
	12 [.472]	—	—	120534-2
	13 [.512]	—	—	120534-2
	14 [.551]	—	—	120533-2
	15 [.591]	—	—	120534-2

Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889092

Mini-Box .050 [1.27] Centerline Connectors

Mini-Box Receptacle Assemblies for Flow Soldering

Housing Material—In accordance with MIL-M-24519 per MIL-C-55302. GLCP-30F, liquid crystal polymer

Contact Material and Finish—Commercial receptacle—Beryllium copper per QQ-C-533 or ASTM B768 plated .000030 [0.00076] min. gold in the mating area, .000100 [0.00254] min. tin-lead in the terminating area over .000030 [0.00076] min. nickel on the entire contact; Military receptacle — Beryllium copper per QQ-C-533 or ASTM B768 plated .000050 [0.00127] min. gold in the mating area, .000100 [0.00254] min. tin-lead in the terminating area over .000030 [0.00076] min. nickel on the entire contact

Printed Circuit Board Connectors (Continued)

No. of Pos.	Assemblies Part Nos.		Military Assemblies Part Nos.		
	Commercial	Epoxy Sealed ¹	M55302/	Unsealed	Sealed
128	—	534175-1	119-11	1-530745-1	2-530745-2
110	—	—	119-10	1-530745-0	—
100	530720-7	—	119-09	—	2-530745-0
80	530720-5	—	119-07	530745-7	1-530745-8
60	—	—	119-05	530745-5	—
50	—	—	119-04	530745-4	—

¹Same contact material and finish per military receptacle



Mini-Box Pin Header Assemblies

Commercial Pin Header Assemblies

Housing Material—In accordance with MIL-M-24519 per MIL-C-55302. GLCP-30F, liquid crystal polymer

Contact Material and Finish—Brass per QQ-B-626 plated .000030 [0.00076] min. gold in the contact area, .000100 [0.00254] min. tin-lead on the tail over .000050 [0.00127] min. nickel on the entire contact.

No. of Pos.	Style I Straddle Mount
100	530719-7



Style I

Military Pin Header Assemblies

Housing Material—In accordance with MIL-C-55302

Contact Material and Finish—Brass per QQ-B-626 plated .000050 [0.00127] min. gold in the contact area, .000100 [0.00254] min. tin-lead on the tail over .000050 [0.00127] min. nickel on the entire contact.

No. of Pos.	Style II - Straddle Mt. w/ Pin Protect.		Style III - Right Angle	
	MIL-C-55302/	AMP Part No.	MIL-C-55302/	AMP Part No.
128	—	—	117-11	2-530743-2
100	—	—	117-09	2-530743-0
90	—	—	117-08	1-530743-9
80	—	—	117-07	1-530743-8
50	—	—	117-04	1-530743-5
20	118-12	1-531803-2	—	—



Style II



Style III

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 296350

Mini-Box .050 [1.27] Centerline Connectors

Printed Circuit Board Connectors (Continued)

Extended Mini-Box Receptacle Assemblies

Part Number: **534179-4**
No. of Positions: 160

Housing Material—Liquid crystal polymer

Contact Material and Finish—Beryllium copper per QQ-C-533 or ASTM B768 plated .000050 [0.00127] min. gold in the mating area, .000100 [0.00254] min. tin-lead in the terminating area over .000030 [0.00076] min. nickel on the entire contact



Mini-Box Receptacle Assemblies with 4 Cavities

Housing Material: In accordance with MIL-C-55302

Contact Material and Finish (Vertical): Beryllium copper per QQ-C-533 or ASTM B768 plated .000030 [0.00076] min. gold in the contact area, .000100 [0.00254] min. tin-lead in the termination area over .000030 [0.00076] min. nickel on the entire contact

Contact Material and Finish (Right Angle): Brass per QQ-B-626 plated .000030 [0.00076] min. gold in the contact area, .000100 [0.00254] min. tin-lead on the post over .000030 [0.00076] min. nickel on the entire contact

No. of Box Contact Pos.	No. of Coaxial Cavities	Vertical Part Number	Right Angle Part Number
90	4	532797-1	532796-1



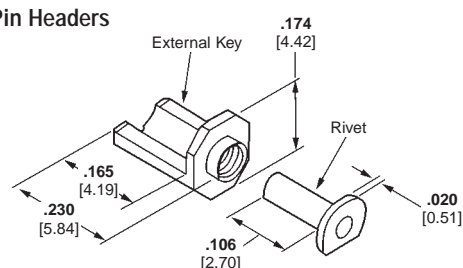
Vertical



Right Angle

Mini-Box and Extended Mini-Box Connector Keying Hardware

Pin Headers



External Key Kit No. 530721-4

Kit includes 2 each of the following:

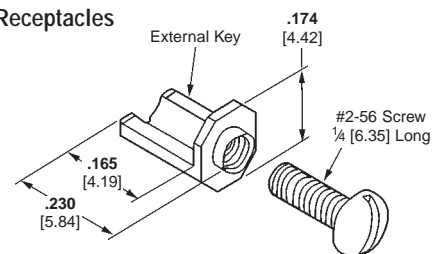
Keys—AMP Part No. 530721-1

Military Part No. M55302/31-06

Rivets—AMP Part No. 534164-2

Material: Passivated Stainless Steel

Receptacles



External Key Kit No. 530721-3

Kit includes 2 each of the following:

Keys—AMP Part No. 530721-1

Military Part No. M55302/31-06

#2-56 Screws, .250 [6.35] Long

Material: Passivated Stainless Steel

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 296350

Mini-Box .050 [1.27] Centerline Connectors

Receptacle Assemblies for Flow Soldering

Commercial Receptacle Assemblies

Housing Material—In accordance with MIL-C-55302 or MIL-M-24519 type GLCP-30F

Contact Material and Finish—Beryllium copper per QQ-C-533 Channel Contact, Posted Contact and Card Extender Contact—Plated .000030 [0.00076] gold in contact area, .000100 [0.00254] tin-lead on the tails over .00030 [0.00076] nickel on the entire contact.
Solder Eyelet Contact—Plated .000030 [0.00076] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .00030 [0.00076] nickel on the entire contact.

Printed Circuit Board Connectors (Continued)

No. of Pos.	.014 x .019 [0.36 x 0.48] Channel Contacts
	AMP Part No.
150	531813-2



Military Receptacle Assemblies

Housing Material—In accordance with MIL-C-55302 or MIL-M-24519 type GLCP-30F

Contact Material and Finish—Beryllium copper per QQ-C-533 Channel Contact, Posted Contact and Card Extender Contact—Plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .00030 [0.00076] nickel on the entire contact.
Solder Eyelet Contact—Plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .00050 [0.00127] nickel on the entire contact.

No. of Pos.	Solder Eyelet Contacts	
	MIL-Part No. M55302/	AMP Part No.
50	24-62	531129-6



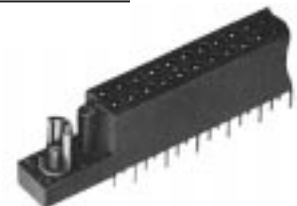
Box .100 [2.54] Centerline Connectors

Military Receptacle Assemblies

Housing Material—In accordance with MIL-C-55302

Contact Material and Finish—Beryllium copper per MIL-C-55302 Channel Contact, Posted Contact and Card Extender Contact—Plated .000050 [0.00127] gold in contact area, .000100 [0.00254] tin-lead on the tails over .00030 [0.00076] nickel on the entire contact.
Solder Eyelet Contact—Plated .000050 [0.00127] gold in contact area, in accordance with MIL-C-55302 .000100 [0.00254] tin-lead on tails over .00050 [0.00127] nickel on the entire contact.

No. of Pos.	.014 x .019 [0.36 x 0.48] Channel Contacts		Solder Eyelet Contacts		.010 x .020 [0.25 x 0.51] Posted Contacts	
	MIL-Part No. M55302/	AMP Part No.	MIL-Part No. M55302/	AMP Part No.	MIL-Part No. 55302/	AMP Part No.
70	27-95	530340-5	—	—	—	—
60	27-94	530340-4	—	—	—	—
50	27-93	530340-3	—	—	—	—
40	—	—	27-101	530758-2	—	—
30	27-91	530340-1	—	—	27-109	530776-1



For Complete Product Information, Order Catalog 296350

Box .100 [2.54] Centerline Connectors

Printed Circuit Board Connectors (Continued)

Right Angle Pin Header Assemblies for Flow Soldering

Military Pin Header:

Contact Material and Finish—Brass per QQ-B-626 plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000050 [0.00127] nickel on the entire contact

Housing Material—In accordance with MIL-C-55302 or MIL-M-24519 type GLCP-30F

No. of Pos.	Standard Housing		Housing with Interfacial Gasket	
	MIL Part No. M55302/	AMP Part No.	MIL Part No. M55302/	AMP Part No.
110	110-18	531721-9	—	—
100	110-17	531721-8	—	—
80	110-15	531721-6	—	—
70	110-14	531721-5	—	—
50	110-12	531721-3	—	—
40	110-11	531721-2	—	—
30	110-10	531721-1	110-19	531722-1



Crimp Type Pin Contact:

Material—Brass

Finish— .000050 [0.00127] gold over .000050 [0.00127] nickel

Wire Range—26-22 AWG [0.12-0.4mm²]

Ins. Dia. Range— .036-.054 [0.91-1.37]

Extraction Tool—Part No. 91156-1

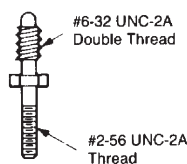
Loose Piece

Military Part No. M55302/113-05
AMP Part No. 530750-5



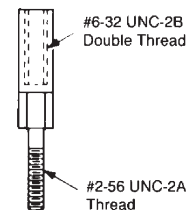
Fixed Jackscrews

Material: Passivated stainless steel



Male

Military Part No. M55302/113-14
AMP Part No. 531141-3
(Nut supplied by customer)



Female

Military Part No. M55302/113-13
AMP Part No. 531141-4
(Nut supplied by customer)

Crimp Type Receptacle Contacts

Material—Phosphor bronze

Finish—Gold over nickel
(See chart for gold thickness)

Wire Range	Insulation Range	Loose Piece	
		.000030 [0.00076] Gold	.000050 [0.00127] Gold
26-22 AWG 0.15-0.3mm ²	.036-.054 0.91-1.37	531216-2	531216-4



For Complete Product Information, Order Catalog 296350

Box .100 [2.54] Centerline Connectors**Printed Circuit Board Connectors (Continued)****3-Row Right Angle Pin Header Assemblies**

Housing Material—In accordance with MIL-C-55302 or MIL-M-24519 type GLCP-30F

Contact Material and Finish—Commercial Flow Solder Contact—Brass per QQ-B-626 plated .000030 [0.00076] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000050 [0.00127] nickel on the entire contact; Military Flow Solder Contact—Brass per QQ-B-626 plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000050 [0.00127] nickel on the entire contact; Wrap-Type Contact—Phosphor bronze plate .000050 [0.00127] gold over .000030 [0.00076] nickel on the entire contact

No. of Pos.	Flow Solder Contacts				
	Commercial Part No.		MIL-Part No. M55302/129	AMP MIL Part No.	
	Sealed	Unsealed		Sealed	Unsealed
180	—	—	-15	446852-6	531133-6
150	—	—	-13	446852-4	531133-4
120	—	—	-11	446852-3	—
90	—	531137-1	-09	—	531133-1

**Keying Hardware****External Keys****Receptacle Key**

For use with Receptacles

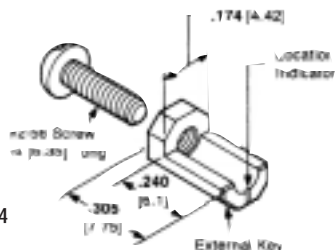
Kit No. 530341-3

Kit includes 2 each of the following:
Keys, passivated stainless steel

AMP Part No. 530341-1

Military Part No. M55302/31-04

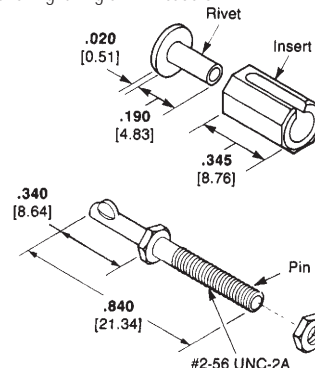
Screws, #2-56 .250 [6.35] long

**Guide Keys****Guide Keying Pin and Insert**

For use with 2- and 3-row Receptacles and Right Angle Pin Headers

Part No. 531713-1

Nut, #2-56

**Pin Header Key**

For use with 2-row Straddle Mount Pin Headers

Kit No. 530341-4¹

Kit includes 2 each of the following:
Keys, passivated stainless steel

AMP Part No. 530341-1

Military Part No. M55302/31-04

Rivets, nickel plated brass

AMP Part No. 530347-1

Military Part No. M55302/31-05

Pin Header Key

For use with 2-, 3-, and 4-row Pin Headers

Kit No. 530341-5¹

Kit includes 2 each of the following:
Keys, passivated stainless steel

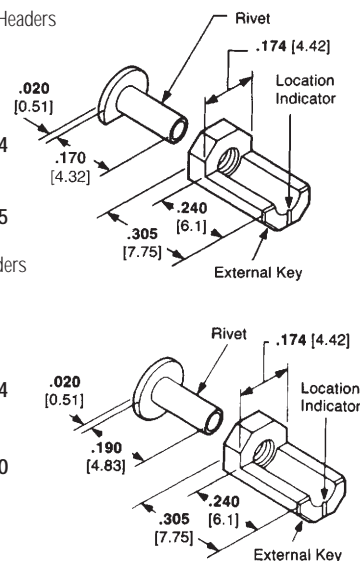
AMP Part No. 530341-1

Military Part No. M55302/31-04

Rivets, nickel plated brass

AMP Part No. 530347-3

Military Part No. M55302/31-10



¹Rivet Clinching Tools:

2-Row Pin Headers—Tool Part No. 91117-1

(See instruction sheet 408-7803)

3-Row Pin Headers—Tool Part No. 91117-3

(See instruction sheet 408-6626)

4-Row Pin Headers—Tool Part No. 92-0800-003

For Complete Product Information, Order Catalog 296350

High Speed, Controlled Impedance Two-Piece Connectors (Micro-Strip Interconnection Systems)

Micro-Strip Vertical Plugs with Guides (Board-to-Board)

10.92 [.430]
Stacking Height

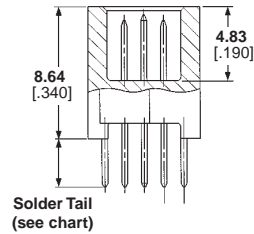
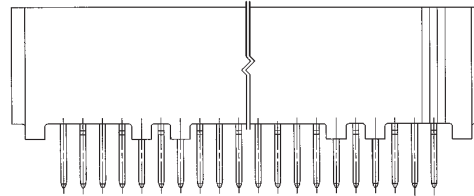
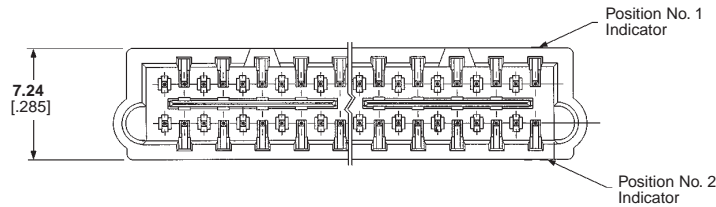
Material and Finish:

Housing — High-temperature thermoplastic, flame retardant

Bus Bar — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire bus underplated 0.00127 [.000050] nickel

Signal Pin — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire contact underplated 0.00127 [.000050] nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Part Numbers	
	2.41 [.095] Solder Tail	3.18 [.125] Solder Tail
40	536280-1	536272-1
60	536280-2	536272-2
80	536280-3	536272-3
100	536280-4	536272-4
120	536280-5	536272-5
140	536280-6	536272-6
180	536280-8	536272-8

Micro-Strip Vertical Plugs with ACTION PIN Contacts (Board-to-Board)

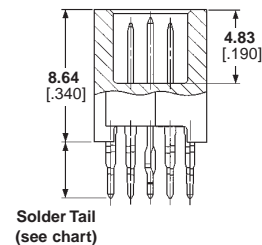
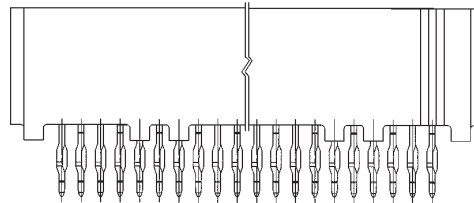
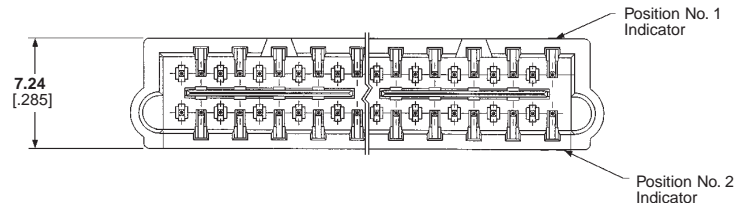
10.92 [.430]
Stacking Height

Material and Finish:

Housing — High-temperature thermoplastic, flame retardant

Bus Bar — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire bus underplated 0.00127 [.000050] nickel

Signal Pin — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire contact underplated 0.00127 [.000050] nickel



No. of Positions	Part Numbers	
	3.68 [.145] ACTION PIN Tail	
100	536274-4	

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65194

High Speed, Controlled Impedance Two-Piece Connectors (Micro-Strip Interconnection Systems)

Micro-Strip Vertical Plugs with Guides and ACTION PIN Contacts (Board-to-Board)

10.92 [.430]
Stacking Height

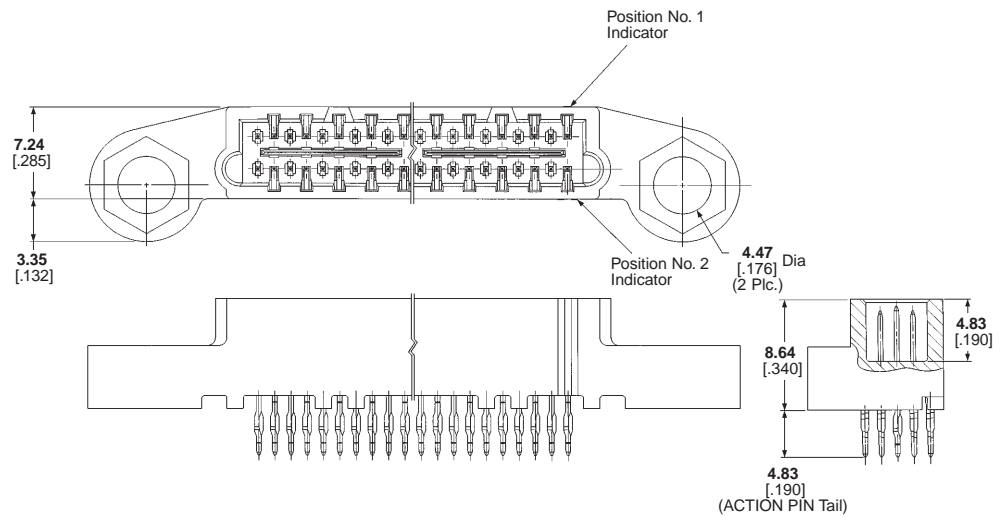
Material and Finish:

Housing — High-temperature thermoplastic, flame retardant

Bus Bar — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire bus underplated 0.00127 [.000050] nickel

Signal Pin — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire contact underplated 0.00127 [.000050] nickel

Printed Circuit Board Connectors (Continued)



No. of Positions	Part Numbers
160	536276-1
240	536276-5

Micro-Strip Vertical Plugs (Board-to-Board)

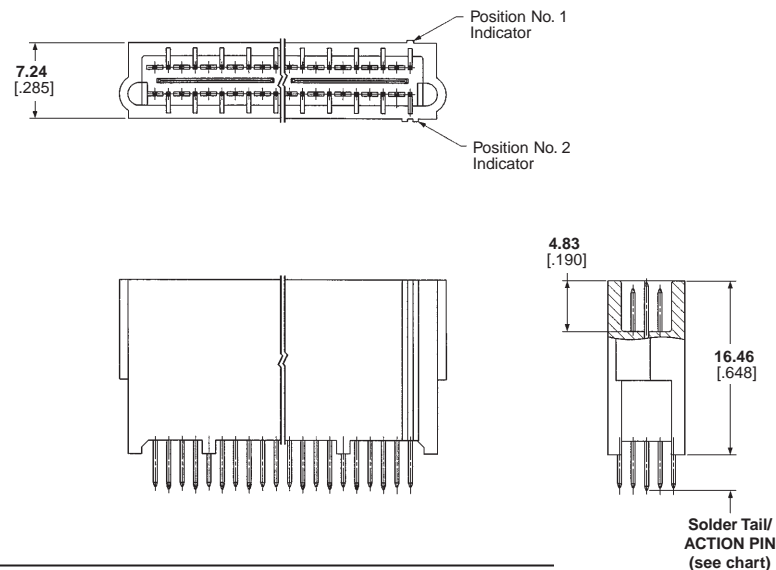
18.75 [.738]
Stacking Height

Material and Finish:

Housing — High-temperature thermoplastic, flame retardant

Bus Bar — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire bus underplated 0.00127 [.000050] nickel

Signal Pin — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire contact underplated 0.00127 [.000050] nickel



No. of Positions	Part Numbers		
	2.41 [.095] Solder Tail	3.18 [.125] Solder Tail	3.68 [.145] ACTION PIN Tail
40	—	149011-1	—
60	149009-2	149011-2	—
80	149009-3	149011-3	—
100	149009-4	149011-4	149013-4
120	149009-5	149011-5	—

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65194

High Speed, Controlled Impedance Two-Piece Connectors (Micro-Strip Interconnection Systems)

Micro-Strip Vertical Receptacles, Right Angle Receptacles and Right Angle Receptacles with Guides (Board-to-Board)

Material and Finish:

Housing — High-temperature thermoplastic, flame retardant

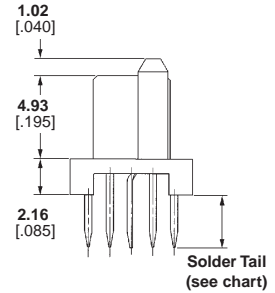
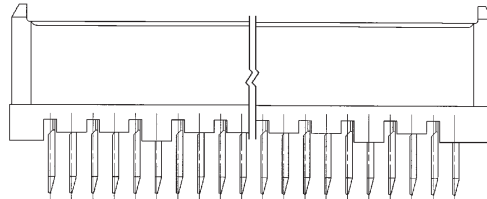
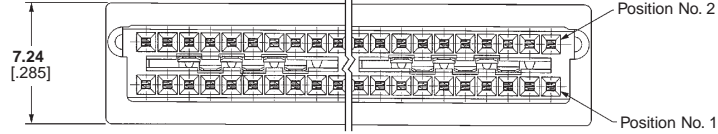
Receptacle Bus — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire bus underplated 0.00127 [.000050] nickel

Receptacle Contact — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire contact underplated 0.00127 [.000050] nickel

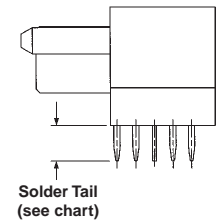
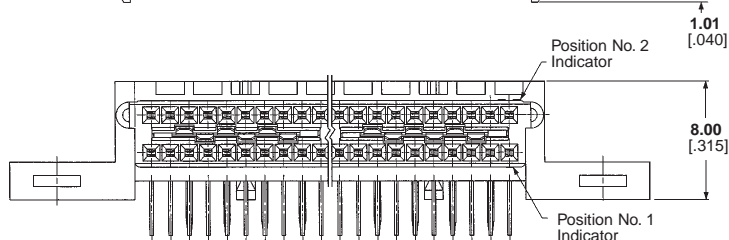
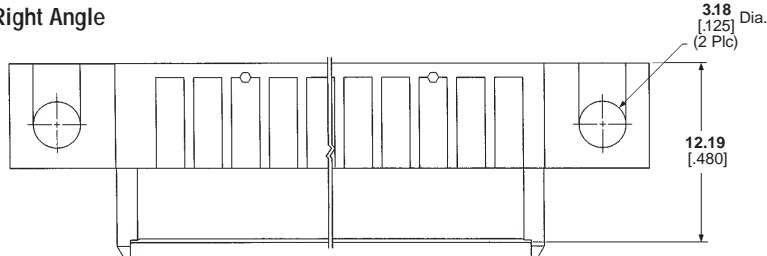
Note: See page 225 for part numbers.

Printed Circuit Board Connectors (Continued)

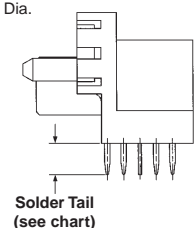
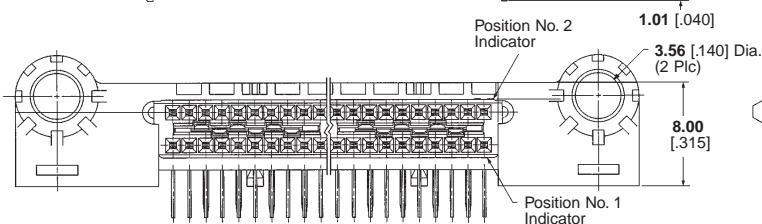
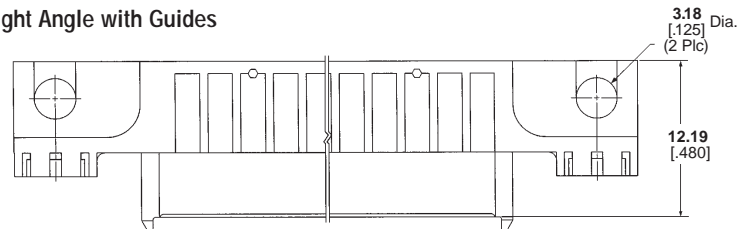
Vertical



Right Angle



Right Angle with Guides



For Complete Product Information, Order Catalog 65194

High Speed, Controlled Impedance Two-Piece Connectors (Micro-Strip Interconnection Systems)

Note: See page 224 for specifications.

Printed Circuit Board Connectors (Continued)

No. of Positions	Vertical Receptacles			Right Angle Receptacles	Right Angle Receptacles w/Guides	
	2.41 [.095] Solder Tail	3.18 [.125] Solder Tail	4.57 [.180] Solder Tail	2.41 [.095] Solder Tail	2.41 [.095] Solder Tail	3.18 [.125] Solder Tail
40	536279-1	536254-1	—	536295-1		
60	536279-2	—	—	—		
80	536279-3	536254-3	—	536295-3		
100	536279-4	536254-4	536255-4	—		
120	536279-5	536254-5	—	—		
140	536279-6	—	—	—		
160	—	—	—	536295-7		149031-1
180	536279-8	536254-8	—	—	536296-5	
200	—	—	—	—		
240	—	—	—	—		149031-2

Micro-Strip Extended Vertical Receptacle (Board-to-Board)

Material and Finish:

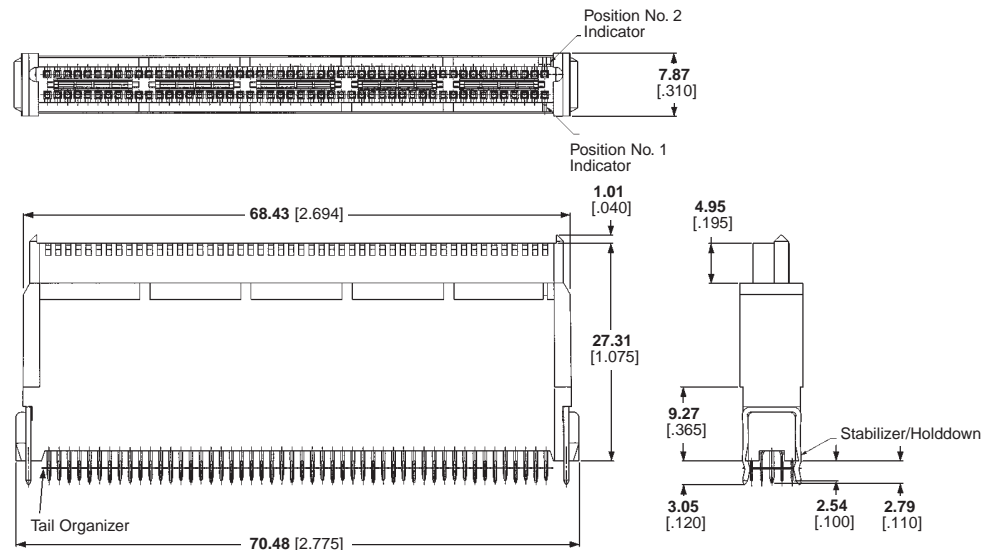
Housing — High-temperature thermo-plastic, flame retardant

Tail Organizer — Polyester film tape

Receptacle Bus — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire bus underplated 0.00127 [.000050] nickel

Receptacle Contact — Phosphor bronze; duplex plated 0.00076 [.000030] gold in mating area, 0.00254 [.000100] tin-lead in terminating area, with entire contact underplated 0.00127 [.000050] nickel

Stabilizer/Holddown — Phosphor bronze; plated 0.00254 – 0.00635 [.000100 – .000300] tin-lead over 0.00127 – 0.00254 [.000050 –



Part Number **121496-4** (100 Positions)

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65194

PC Card Connectors

Printed Circuit Board Connectors (Continued)

Smart Card Connectors

For .030 [0.76] Smart Cards,
Low Profile PC Board Mount

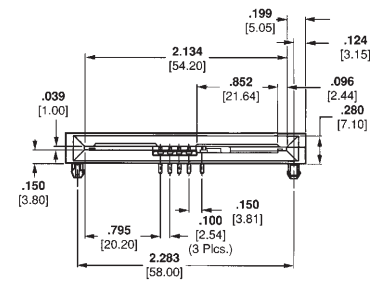
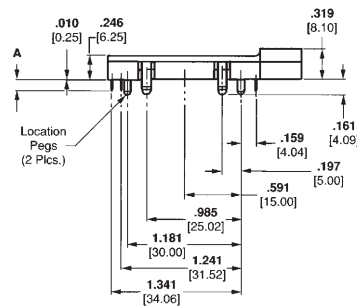
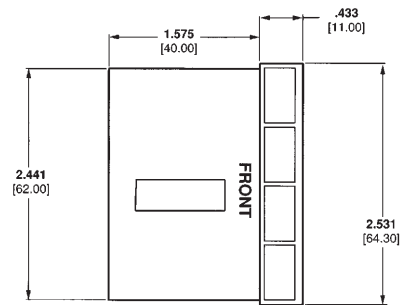
Material and Finish:

Housing — High-temperature thermo-plastic, black

Signal and Switch Active Member Contacts — Phosphor bronze

Switch Post — Brass

All Contacts — Duplex plated .000030 [0.00076] min. gold in mating area, .000100 [0.00254] min. tin-lead on solder tails, with entire contact underplated .000050 [0.00127] min. nickel



Mating Face (with Card Scoop)

Dim.	Part Numbers
A	With Card Scoop
.134 [3.40]	145207-3

For Complete Product Information, Order Catalog 82619

Receptacle Assembly, Short
Leads, Surface-Mount, -.041
[-.016] Offset

68 Positions

Part Numbers:

146229-1 (Tube Packaged),

146322-1 (Tape Packaged)

Material and Finish:

Housing — Glass-filled liquid crystal polymer, black

Contacts — Beryllium copper; duplex plated 0.00076 [0.00030] minimum gold in mating area, 0.00254 [0.00100] tin-lead on solder tail, with entire contact underplated 0.00127 [0.00050] minimum nickel



Receptacle Assembly, Long
Leads, Surface-Mount, -.041
[-.016] Offset

68 Positions

Part Numbers:

146230-1 (Tube Packaged),

146231-1 (Tape Packaged)

Material and Finish:

Housing — Glass-filled liquid crystal polymer, black

Contacts — Beryllium copper; duplex plated 0.00076 [0.00030] minimum gold in mating area, 0.00254 [0.00100] tin-lead on solder tail, with entire contact underplated 0.00127 [0.00050] minimum nickel



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

CardBus Receptacle Assembly, Surface-Mount, -0.41 [-.016] Offset

68 Positions

Part Numbers:

146777-2 (Tape Packaged)

Material and Finish:

Housing — Glass-filled liquid crystal polymer, black

Contacts — Beryllium copper; duplex plated 0.00076 [.000030] minimum gold in mating area, 0.00254 [.000100] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel

Shield — Brass; duplex plated 0.00076 [.000030] minimum gold in mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire shield underplated 0.00127 [.000050]

Printed Circuit Board Connectors (Continued)

Pin Header, Single Slot, Standard Height, Top Board Thru-Hole Mount

68 Positions

Part Number **535653-1**

Material and Finish:

Housing and Organizer — Liquid crystal polymer, black

Contacts — Brass; duplex plated 0.00076 [.000030] minimum gold on mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel



Guide Rails for Single Slot, Standard Height Pin Headers

Left and Right Guide Rails with Thru-Hole Holddowns

Part Numbers:

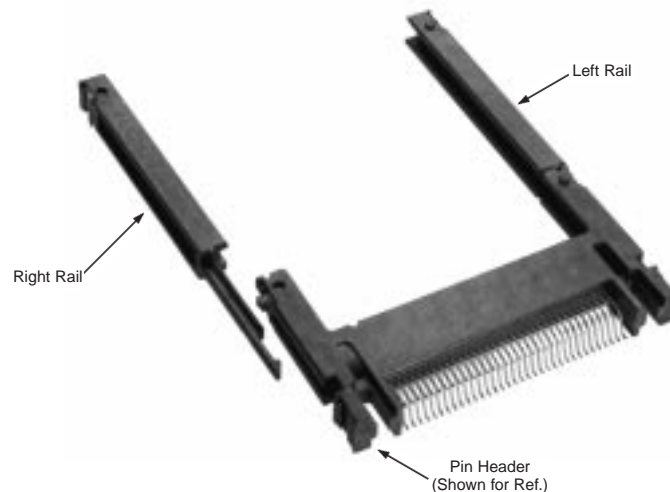
Left Guide Rail **535664-1**

Right Guide Rail **535664-2**

Material and Finish:

Rails — Liquid crystal polymer, black

Holddowns — Phosphor bronze, tin plated



Ejector Assembly for Single Slot, Standard Height Pin Headers

Right Button Ejector¹

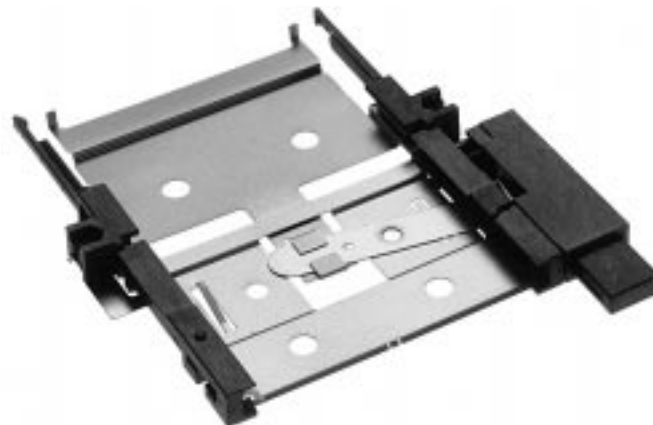
Part Number **146021-1**

Material and Finish:

Rails, Shroud and Button — Liquid crystal polymer, black

Ejector, Rail Plate and Lever — Stainless steel

¹For top board-mount applications. Also can be used as left button ejector for bottom board-mount applications.



Note:
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

Pin Header, Single Slot,
Raised Height, Top Board
Thru-Hole Mount

68 Positions

Part Number **535655-1**

Material and Finish:

Housing and Organizer — Liquid crystal polymer, black

Contacts — Brass; duplex plated 0.00076 [.000030] minimum gold on mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel

Printed Circuit Board Connectors (Continued)



Pin Header, Single Slot,
Raised Height, Top Board
Surface-Mount

68 Positions

Part Number **535657-1**

Material and Finish:

Housing — Liquid crystal polymer, black

Contacts — Brass; duplex plated 0.00076 [.000030] minimum gold on mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel



Guide Rails for Single Slot,
Raised Height Pin Headers

Left and Right Guide Rails
with Thru-Hole Holddowns

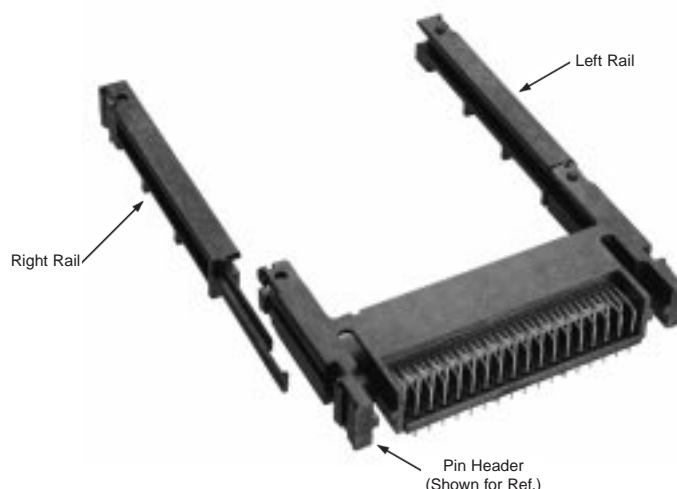
Part Numbers:

Left Guide Rail **535661-1**

Material and Finish:

Rail — Liquid crystal polymer, black

Holddowns — Phosphor bronze, tin plated



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

Printed Circuit Board Connectors (Continued)

Ejector Assembly for Single Slot, Raised Height Pin Headers

Left Button Ejector¹Part Number **146020-1**

Material and Finish:

Rails, Shroud and Button — Liquid crystal polymer, black

Ejector, Rail Plate and Lever— Stainless steel

¹For top board-mount applications. Also can be used as right button ejector for bottom board-mount applications.Right Button Ejector¹Part Number **146022-1**

Material and Finish:

Rails, Shroud and Button — Liquid crystal polymer, black

Ejector, Rail Plate and Lever— Stainless steel

¹For top board-mount applications. Also can be used as left button ejector for bottom board-mount applications.

Pin Header, Vertical, Top Board Surface-Mount

68 Positions with Locating Feature

Part Number **146733-1**
(Keyed for 5 Volt Cards)

Material and Finish:

Housing — Liquid crystal polymer, black

Contacts — Brass; duplex plated 0.00076 [.000030] minimum gold on mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel



Pin Header, Double Slot, Standard Height, Top Board Thru-Hole Mount

136 Positions

Part Numbers:

146027-1 (No Holddowns)**146028-1** (2 Rear Holddowns)

Material and Finish:

Housing and Organizer — Liquid crystal polymer, black

Contacts — Brass; duplex plated 0.00076 [.000030] minimum gold on mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel



Ejector Assembly for Double Slot, Standard Height Pin Headers

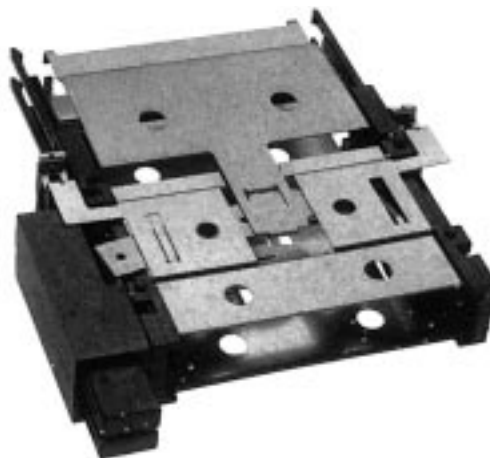
Ejector with Buttons on Same Side (Right or Left)

Part Number **146036-1**

Material and Finish:

Rails, Shroud and Button — Liquid crystal polymer, black

Ejector, Rail Plate and Lever— Stainless steel



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

**Pin Header, Double Slot,
Raised Height, Top Board
Thru-Hole Mount**

136 Positions

Part Number 146046-1

Material and Finish:

Housing and Organizer — Liquid crystal polymer, black

Contacts — Brass and phosphor bronze; duplex plated 0.00076 [.000030] minimum gold on mating area, 0.00381 [.000150] minimum tin-lead on solder tail, with entire contact underplated 0.00127 [.000050] minimum nickel

Stacking Clips — Phosphor bronze,



Printed Circuit Board Connectors (Continued)

**Ejector Assembly for Double
Slot, Raised Height Pin
Headers**

Right Button Ejector

Part Number 146049-1

Material and Finish:

Rails, Shroud and Buttons — Liquid crystal polymer, black

Ejector, Rail Plate and Lever — Stainless steel



**PC CardBus Pin Header,
Double Slot with Left and
Right Ejector Buttons, Top
Board Surface-Mount**

136 Positions

Part Number 900276-1

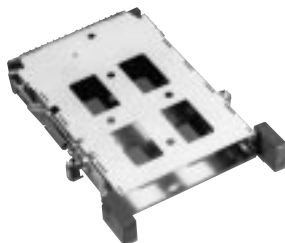
Material and Finish:

Ejector Frame, Push Bar, Arm Bar and Slider — Stainless steel

Ejector Buttons —PBT, gray

Pin Header Housing —Liquid crystal polymer

Pin Header Contacts and Ground Plate — Copper alloy, duplex plated 0.00030 [.000012] minimum gold on mating area, 0.00200 [.000079] minimum tin-lead on solder tails, with entire contact underplated 0.00127 [.000050] minimum nickel



**PC CardBus Pin Header,
Double Slot with Left Pivoting
Ejector Buttons,
Top Board Surface-Mount**

136 Positions

Part Number 316351-2

Material and Finish:

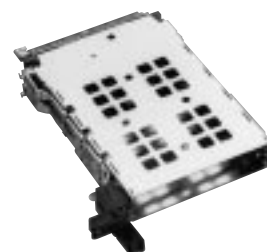
Ejector Frame, Push Bar, Arm Bar and Slider — Stainless steel

Ejector Buttons —PBT, black

Insulator Sheet —Clear polyester film

Pin Header Housing —Liquid crystal polymer

Pin Header Contacts and Ground Plate — Copper alloy, duplex plated 0.00030 [.000012] minimum gold on mating area, 0.00200 [.000079] minimum tin-lead on solder tails, with entire contact underplated 0.00127 [.000050] minimum nickel



For Complete Product Information, Order Catalog 65701

PC Card Connectors

Printed Circuit Board Connectors (Continued)

PC CardBus Pin Header,
Double Slot with Right Ejector
Button, Bottom Board Surface-
Mount

136 Positions

Part Number 316350-1
(Black Ejector Buttons)

Material and Finish:

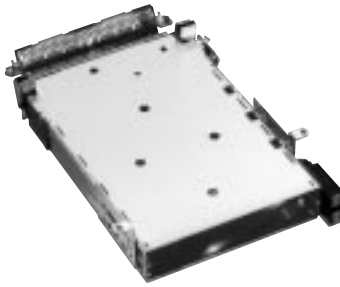
**Ejector Frame, Push Bar, Arm Bar
and Slider** — Stainless steel

Ejector Buttons —PBT, black

Insulator Sheet —Clear polyester
film

Pin Header Housing —Liquid crystal
polymer

**Pin Header Contacts and Ground
Plate** — Copper alloy, duplex plated
0.00030 [.000012] minimum gold on
mating area, 0.00200 [.000079]
minimum tin-lead on solder tails, with
entire contact underplated 0.00127
[.000050] minimum nickel



PC CardBus Pin Header,
Double Slot with Power
Ejector, Bottom Board Surface-
Mount

136 Positions

Part Number 900440-1

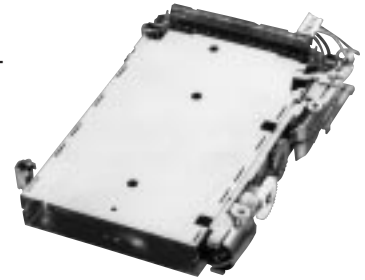
Material and Finish:

**Ejector Frame, Push Bar, Arm Bar
and Slider** — Stainless steel

Ejector Buttons —PBT, black

Pin Header Housing —Liquid crystal
polymer

**Pin Header Contacts and Ground
Plate** — Copper alloy, duplex plated
0.00030 [.000012] minimum gold on
mating area, 0.00200 [.000079]
minimum tin-lead on solder tails, with
entire contact underplated 0.00127
[.000050] minimum nickel



PC CardBus Pin Header,
Double Slot with Right
Pivoting Ejector Buttons,
Edge Mount or Board Cutout
Required, Surface-Mount

136 Positions

Part Number 900322-1

Material and Finish:

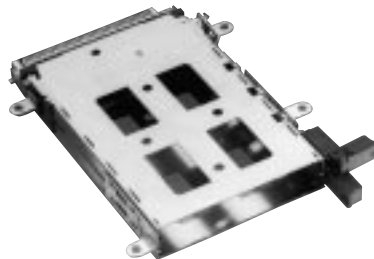
**Ejector Frame, Push Bar, Arm Bar
and Slider** — Stainless steel

Ejector Buttons —PBT, gray

Insulator Sheet —Clear polyester
film

Pin Header Housing —Liquid crystal
polymer

**Pin Header Contacts and Ground
Plate** — Copper alloy, duplex plated
0.00030 [.000012] minimum gold on
mating area, 0.00200 [.000079]
minimum tin-lead on solder tails, with
entire contact underplated 0.00127
[.000050] minimum nickel



PC CardBus Pin Header,
Double Slot with Right
Pivoting Ejector Buttons,
Edge Mount or Board Cutout
Required, Surface-Mount

136 Positions

Part Number 900472-1

Material and Finish:

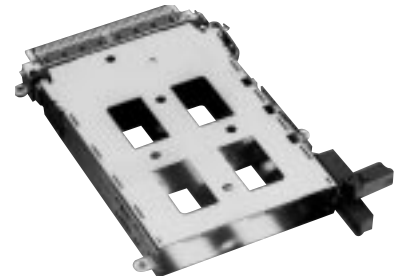
**Ejector Frame, Push Bar, Arm Bar
and Slider** — Stainless steel

Ejector Buttons —PBT, gray

Insulator Sheet —Clear polyester
film

Pin Header Housing —Liquid crystal
polymer

**Pin Header Contacts and Ground
Plate** — Copper alloy, duplex plated
0.00030 [.000012] minimum gold on
mating area, 0.00200 [.000079]
minimum tin-lead on solder tails, with
entire contact underplated 0.00127
[.000050] minimum nickel



For Complete Product Information, Order Catalog 65701

PC Card Connectors

0.6mm FPC Connectors, 0.6
[.024] Pitch

152 Positions

Part Numbers:

316725-1 (Mounts Above
PC Board)

353140-1 (Mounts Below
PC Board)



Material and Finish:

Housing — Liquid crystal polymer,
milk white, 94V-0 rated

Contacts — Copper alloy, plated gold
over nickel

Solder Pegs — Copper alloy, tin/lead
over nickel

Series I Frame Kits, Type II
Unshielded, 0.4 [.016] Offset
PCB

Material:

Frame Assembly — Stainless steel
and liquid crystal polymer, black,
94V-0 rated

Cover — Stainless steel

No. of Positions	Recessed Areas ¹	Frame Kit Part Numbers ²
9	No	557920-3
15	No	557920-4

¹Recess areas are located on the frame assembly and cover. They will accommodate a label size of 38.80 [1.528] x 64.0 [2.52] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal space between the board and covers by 0.076 [.003].

²UL recognition and CSA certification not applicable.



INFOPORT Series I I/O
Receptacle Assemblies,
Type II, Keyed

9 and 15 Positions

Material and Finish:

Housing — Liquid crystal polymer,
black

Contacts — Phosphor bronze, duplex
plated 0.00127 [.000050] minimum
gold in contact area, 0.00381 [.000150]
minimum tin-lead on solder tines, with
entire contact underplated 0.00254
[.000100] minimum nickel

Detention Clips — Carbon steel,
plated 0.00050 [.000020] minimum tin-
lead over 0.00500 [.000200] minimum
nickel

Note:

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

No. of Positions (Keyed)	Receptacle Assembly Part Numbers
9	557908-1¹
15	557908-2¹

¹Tray packaged



For Complete Product Information, Order Catalog 65701

PC Card Connectors

INFOPORT Series I Plug Assemblies, Keyed

9 and 15 Positions

Material and Finish:

Housing — Liquid crystal polymer, black

Contacts — Phosphor bronze, duplex plated 0.00127 [.000050] minimum gold in contact area, 0.00381 [.000150] minimum tin-lead on solder tines, with entire contact underplated 0.00254 [.000100] minimum nickel

Detention Clips — Carbon steel, plated tin-lead over nickel

Strain Relief — Thermoplastic molding compound, black, 94V-0 rated

Printed Circuit Board Connectors (Continued)

No. of Positions (Keyed)	Plug Assembly Part Numbers
15	557715-2



Series II Frame Kits, Type II for Shielded Connectors, 0.4 [.016] Offset PCB

Material:

Frame Assembly — Stainless steel and liquid crystal polymer, black, 94V-0 rated

Cover — Stainless steel

Lightpipe — Polycarbonate molding compound, clear

No. of Pos.	Voltage	Recessed Areas ¹	Frame Kit Part Numbers ²
15	5V68	Yes	558133-1
33	5V68	Yes	558133-3
		No	558133-5

¹Recess areas are located on the frame assembly and cover. They will accommodate a label size of 38.80 [1.528] x 64.0 [2.52] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal space between the board and covers by 0.076 [.003].

²UL recognition and CSA certification not applicable.



INFOPORT Series II Headers, Type II, Shielded, 0.8 [.031] Centerline

15 and 33 Positions

Material and Finish:

Housing — Glass-filled nylon, black, 94V-0 rated

Contacts — Phosphor bronze, duplex plated 0.00025 [.000010] minimum gold over 0.00102 [.000040] minimum palladium nickel in contact area, 0.00381 [.000150] minimum tin-lead on solder tines, with entire contact underplated 0.00127 [.000050] minimum nickel

Shield — Copper alloy, tin-lead plated

No. of Positions	Keying Option (See Below)	Header Part Numbers Tray Packaged
33	2	558134-2



Keying Option 2



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

INFOPORT Series II Cable Connectors, Shielded, 0.8 [.031] Centerline

15 and 33 Positions

Material and Finish:

Housing and External Cover — Thermoplastic, black, 94V-0 rated

Contacts — Phosphor bronze, duplex plated 0.00025 [.000010] minimum gold over 0.00102 [.000040] minimum palladium nickel in contact area, 0.00127 [.000050] minimum tin-lead on solder tines, with entire contact underplated 0.00127 [.000050] minimum nickel

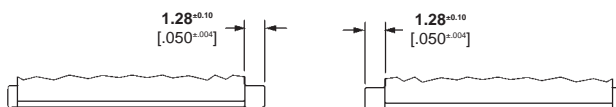
Shield — Stainless steel

Latches — Stainless Steel

Printed Circuit Board Connectors (Continued)

No. of Positions	Keying (See Below)	Cable Connector Part Numbers ¹
15	1	558126-2
33	2	558126-4

¹UL recognition and CSA certification pending.



Keyed 1

Keyed 2



Series III Frame Kits, Type II, Shielded

Material:

Frame Assembly — Stainless steel and liquid crystal polymer, black, 94V-0 rated

Cover — Stainless steel

Frame Kit Components	Recessed Areas ¹	Part Numbers ²	
		Uninsulated	Insulated
Frame Assembly	Yes	558877-1	569494-1
Cover	Yes	558879-1	—

¹Recess areas are located on the frame assembly and cover. They will accommodate a label size of 38.80 [1.528] x 64.0 [2.52] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal spacing between the board and covers by 0.076 [.003].

²UL recognition and CSA certification not applicable.



Series III Sonic Weld, Single Port Frame Kits, Type II

Material:

Frame Assemblies — Stainless steel and nylon molding compound, black

Frame Kit Components	Recessed Keying	Areas ¹	Insulated	Part Numbers ²
Top Frame Assembly	5V	Yes	No	406063-1
Bottom Frame Assembly	5V	Yes	Yes	406062-3

¹Recess areas are located on the top and bottom frame assemblies. They will accommodate a label size of 38.80 [1.528] x 66.80 [2.51] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal spacing between the board and covers by 0.08 [.003].

²UL recognition and CSA certification not applicable.



Series III Sonic Weld, Dual Port Frame Kits, Type II

Material:

Frame Assemblies — Stainless steel and nylon molding compound, black

Frame Kit Components	Keying	Recessed Areas ¹	Insulated	Part Numbers ²
Top Frame Assembly	5V	No	Yes	406143-4

¹Recess areas are located on the top and bottom frame assemblies. They will accommodate a label size of 38.80 [1.528] x 66.80 [2.51] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal spacing between the board and covers by 0.08 [.003].

²UL recognition and CSA certification not applicable.



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

Series III Sonic Weld, CardBus Frame Kits, Type II

Material:

Frame Assemblies — Stainless steel and nylon molding compound, black

Printed Circuit Board Connectors (Continued)

Frame Kit Components	Keying	Recessed Areas ¹	Insulated	Part Numbers ²
Top Frame Assembly	Low Voltage	Yes	Yes	406349-3
Bottom Frame Assembly	Low Voltage	Yes	Yes	406062-7

¹Recess areas are located on the top and bottom frame assemblies. They will accommodate a label size of 38.80 [1.528] x 66.80 [2.51] with a maximum thickness of 0.076 [0.003]. The recess area reduces the internal spacing between the board and covers by 0.08 [0.003].

²UL recognition and CSA certification not applicable.



INFOPORT Series III Headers, Shielded

15 Positions

Material and Finish:

Housing — Glass-filled nylon molding compound, black, 94V-0 rated

Contacts — Phosphor bronze, duplex plated 0.00025 [0.00010] minimum gold over 0.00102 [0.00040] minimum palladium nickel over 0.00005 [0.00002] minimum gold in contact area, 0.00381 [0.00150] minimum tin-lead on solder tines, with entire contact underplated 0.00127 [0.00050] minimum nickel

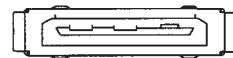
Shield — Stainless steel, tin-lead plated

Striker Plate — Stainless steel

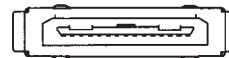
Keying Option	0.4 [.016] offset ¹		0 offset ²
	Tape and Reel Packaged	Tray Packaged	Tape and Reel Packaged
1	5-558556-1	558556-1	—
2	5-558556-3	—	—
3	—	—	5-569331-4

¹Distance from connector centerline to bottom surface of solder tails is 0.4 [.016].

²Distance from connector centerline to bottom surface of solder tails is 0.



Keying Option 1



Keying Option 2



Keying Option 3



0.4 [.016] offset



Dual Port, 0 offset

INFOPORT Series III Cable Connectors

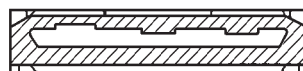
8 and 15 Positions

Material and Finish:

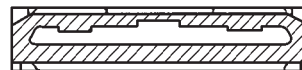
Housing — Nylon molding compound, black

Contacts — Phosphor bronze, duplex plated 0.00025 [0.00010] minimum gold over 0.00102 [0.00040] minimum palladium nickel over 0.00005 [0.00002] minimum gold in contact area, 0.00381 [0.00150] minimum tin-lead on solder tines, with entire contact underplated 0.00127 [0.00050] minimum nickel

No. of Positions	Keying Options	Part Numbers
15	1	558666-1
	2	558666-4



Keying Option 1



Keying Option 2



Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

PC Card Connectors

INFOPORT Series III Connector
Shield Kits (Squeeze-to-Release)

Material:

Shield — Stainless steel

Printed Circuit Board Connectors (Continued)

Cable Exit	Shield Kit Part Numbers ³
Small ¹	558790-1
Large ²	558790-2

¹Accommodates cable O.D. of 3.429 [.135] minimum, 3.81 [.150] maximum.²Accommodates cable size of 5.715 [.225] x 3.683 [.145] oval.³Kits are shipped unassembled.INFOPORT Series III Cable
Connector Slip-On Boots
(Squeeze-to-Release)

Material:

Housing — Polyphenylene oxide molding compound, black

AMP Logo	Part Numbers
Yes	558665-1
No	558665-2

Frame Kits, Type I, 0.8 [.031]
Offset PCB (for Memory Card
Applications)

Material:

Frame Assembly — Stainless steel and liquid crystal polymer molding compound, black, 94V-0 rated

Cover — Stainless steel

Key Identification	Recessed Areas ¹	Frame Kit Part Numbers ²
5V68	Yes	558138-1

¹Recess areas are located on the top and bottom covers. They will accommodate a label size of 38.80 [1.528] x 64.0 [2.52] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal spacing between the board and covers by 0.076 [.003].²UL recognition and CSA certification not applicable.Frame Kits, Type II, Centered or
0.4 [.016] Offset PCB
(for Memory Card Applications)

Material:

Frame Assembly — Stainless steel and liquid crystal polymer molding compound, black, 94V-0 rated

Cover — Stainless steel

Key Identification	PCB Location	Recessed Areas ¹	Cover Part Numbers	Frame Assembly Part Numbers ²
5V68	Offset	Yes	558895-1	558894-1

¹Recess areas are located on the top and bottom covers. They will accommodate a label size of 38.80 [1.528] x 64.0 [2.52] with a maximum thickness of 0.076 [.003]. The recess area reduces the internal spacing between the board and covers by 0.076 [.003].²UL recognition and CSA certification not applicable.

Note:

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 65701

Ribbon and Flexible Flat Cable Products

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AMP-LATCH Receptacle Connectors

AMP-LATCH Novo Receptacles

Feature — Dual Beam Phosphor Bronze Contacts with Gold-over-Nickel plating

Center and Military Polarization

Material and Finish

Housing, Cover & Strain Relief — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated gold on mating end, bright tin-lead on termination end all over nickel under-plating

Military Polarization

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated gold on mating end, bright tin-lead on termination end all over nickel under-plating

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos.	Strain Reliefs	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated
10	499252-5	746288-1	746285-1
14	499252-9	746288-2	746285-2
16	499252-8	746288-3	746285-3
20	499252-2	746288-4	746285-4
24	1-499252-0	746288-5	746285-5
26	499252-3	746288-6	746285-6
30	1-499252-2	746288-7	746285-7
34	499252-6	746288-8	746285-8
40	499252-1	746288-9	746285-9
50	499252-4	1-746288-0	1-746285-0
60	499252-7	1-746288-1	1-746285-1
64	1-499252-3	1-746288-2	1-746285-2



AMP-LATCH Novo Connector with Center and Military Polarization

No. of Pos.	Strain Reliefs	.000030 [0.00076] Gold Plated	.000015 [0.00038] Gold Plated
10	499252-5	746290-1	499997-1
14	499252-9	746290-2	499997-2
16	499252-8	746290-3	499997-3
20	499252-2	746290-4	499997-4
24	1-499252-0	746290-5	499997-5
26	499252-3	746290-6	499997-6
30	1-499252-2	746290-7	499997-7
34	499252-6	746290-8	499997-8
40	499252-1	746290-9	499997-9
50	499252-4	1-746290-0	1-499997-0
60	499252-7	1-746290-1	—
64	1-499252-3	1-746290-2	—



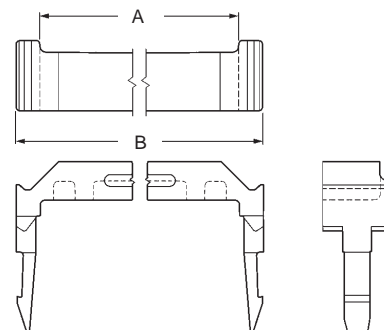
AMP-LATCH Novo Connector with Military Polarization

Strain Relief for Novo Receptacles

Material and Finish

Thermoplastic, 94V-0 rated, black

No. of Pos.	Dimensions		Strain Relief Part No.
	A	B	
10	.520 13.21	.680 17.27	499252-5
14	.720 18.29	.880 22.35	499252-9
16	.820 20.83	.980 24.89	499252-8
20	1.020 25.91	1.180 29.97	499252-2
24	1.220 30.99	1.380 35.05	1-499252-0
26	1.320 33.53	1.480 37.59	499252-3
30	1.520 38.61	1.680 42.67	1-499252-2
34	1.720 43.69	1.880 47.75	499252-6
40	2.020 51.31	2.180 55.37	499252-1
44	2.220 56.39	2.380 60.45	1-499252-1
50	2.520 64.01	2.680 68.07	499252-4
60	3.020 76.71	3.180 80.77	499252-7
64	3.220 81.79	3.380 85.85	1-499252-3



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

AMP-LATCH Card Edge Connectors – Without Mounting Ears, With Split Single Beam Contacts

Material and Finish

Housing & Cover — Thermoplastic 94V-0 rated, black

Contacts — Phosphor bronze, duplex plated:

A. .000015 [0.00038] min. gold on mating end, .000100 - .000200 [0.00254 - 0.00508] bright tin-lead on termination end

B. Same as **A** with .000030 [0.00076] min. gold

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos.	Plating Code	Connectors (Pre-Assembled)	
		Without Mounting Ears	Without Ears With Molded Key ¹
10	B	111109-8	—
16	B	1-111109-0	—
20	B	111109-6	—
30	A	111110-4	—
34	A	—	111112-3
40	B	111109-2	—
50	B	111109-1	—

¹Intercontact keying plug is molded between positions 3, 4, 5 and 6.



AMP-LATCH Card Edge Connector Without Mounting Ears

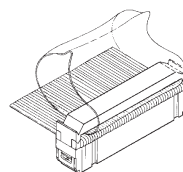
AMP-LATCH Ribbon Cable Connectors - Accessories

Pull Tabs, Permanent (for Receptacles and Pin Connectors)

Material —

Natural color PVC, 94-VTM-1 rating (thin material)

No. of Pos.	Part No.
—	88450-1
10	88450-2
14	88450-3
16	88450-4
20	88450-5
24	88450-6
26	88450-7
30	1-88450-2
34	88450-8
40	88450-9
50	1-88450-0
60	1-88450-1



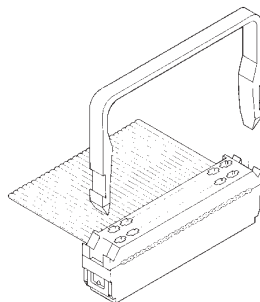
Note: This pull tab is installed manually between the cover and strain relief.

Pull Tabs, Snap-In (for Receptacles without Strain Relief)

50-Positions—Part No. 1-746601-1

Material —

Thermoplastic, 94V-0-rated, black

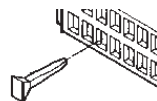
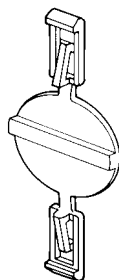


Polarizer, Snap-In (for Pin Connectors, Universal Pin and Pinless Headers and Low Profile Pin Headers)

Part No. 499991-2
(Packaged 50 per bag)
Part No. 499991-3
(Packaged 1000 per box)

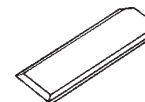
Material —

Thermoplastic, 94V-0 rated, black



Material:
Black Thermoplastic, 94V-0 rated

Keying Plug (for Novo Receptacles)
Part No. 499712-1
Alternate Configuration with 10 Keying Plugs Per Comb
Part No. 104072-1



Material:
Black Thermoplastic, 94V-0 rated

Keying Plug (for Card Edge Connectors)
Part No. 499712-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

Universal I/O Pin Connectors
without Mounting Ears

Material and Finish

Contacts —

A. Phosphor bronze, duplex plated
.000015 [0.00038] gold on pin end,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end all
over nickel underplating with .000050
[0.00127] nickel

B. Phosphor bronze, duplex plated
.000030 [0.00076] gold on pin end,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end all
over nickel underplating with .000050
[0.00127] nickel

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos.	Plating Code	Part Number without Latches
10	B	111446-1
14	A	111445-2
20	B	111446-4
34	B	111446-8
50	A	1-111445-1
	B	1-111446-1



Latch
Part No. 111451-3

Universal I/O Pin Connectors
with Slotted Mounting Ears

Material and Finish

Contacts —

A. Phosphor bronze, duplex plated
.000015 [0.00038] gold on pin end,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end all
over nickel underplating with .000050
[0.00127] nickel

34-Positions Without Latches
Part No. 111447-8

AMP-LATCH DIP Plugs,
.100 x .100 [2.54 x 2.54]Housing Assemblies with
Cover (Pre-Assembled)

Material and Finish

Housing & Cover — Thermoplastic
94V-0 rated, black

Contacts — Phosphor bronze, plated
.000100-.000200 [0.00254-0.00508]
bright tin-lead over .000050 [0.00127]
nickel on entire contact

No. of Pos.	Part No. (Pre-Assembled)
10 ¹	746610-1
14	746610-2
16	746610-3
20	746610-4
24	746610-5
26	746610-6

¹With Retention Legs -
Part No. 111382-1

No. of Pos.	Part No. (Pre-Assembled)
30	746610-7
34	746610-8
40	746610-9
50	1-746610-0
60	1-746610-1
64	1-746610-2



DIP Plug with Cover
Pre-Assembled

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

Low Profile Headers—Shrouded,
.100 [2.54] End Dimension,
.100 x .100 [2.54 x 2.54]
Centers

Double Row .025 [0.64] Square
Straight Post

Material and Finish

Housing — Thermoplastic 94V-0
rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

Double Row .025 [0.64] Square
Right-Angle Post

Material and Finish

Housing — Thermoplastic 94V-0
rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

Double Row with Ejection
Latches, .025 [0.64] Square
Right-Angle Post

Material and Finish

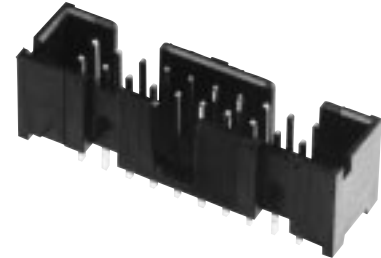
Housing and Latches —
Thermoplastic 94V-0 rated, black

Contacts — Copper alloy, duplex plat-
ed .000030 [0.00076] gold on pin end,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end all
over nickel underplating with .000050
[0.00127] nickel

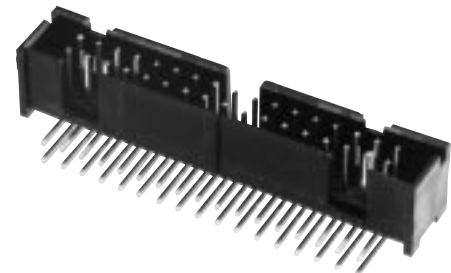
BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos	Part Numbers	
	Plating A	Plating B
10	103308-1	103309-1
14	103308-2	103309-2
16	103308-3	103309-3
20	103308-5	103309-5
26	103308-6	103309-6
34	103308-7	103309-7
40	103308-8	103309-8
50	1-103308-0	1-103309-0
60	—	1-103309-2



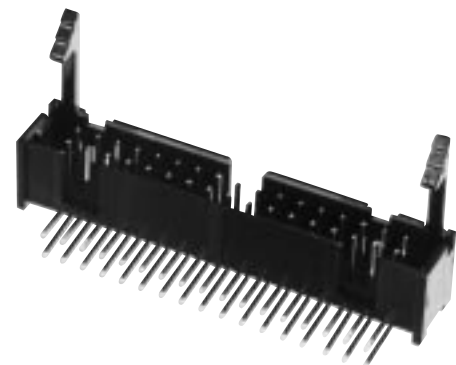
No. of Pos	Part Numbers	
	Plating A	Plating B
10	103310-1	103311-1
14	103310-2	103311-2
16	103310-3	103311-3
20	103310-5	103311-5
26	103310-6	103311-6
34	103310-7	103311-7
40	103310-8	—
50	1-103310-0	1-103311-0



No. of Pos.	Part Numbers	
	Latching Height .585 [14.9] ¹	Latching Height .435 [11.0] ²
10	104130-1	104315-1
14	104130-2	—
16	104130-3	—
20	104130-4	—
26	104130-5	104315-5
34	104130-6	—
40	104130-7	—
50	104130-9	104315-9

¹To be used when mating to receptacle with strain relief.

²To be used when mating to a receptacle without strain relief.



For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

Low Profile Headers—Shrouded,
.100 [2.54] End Dimension,
.100 x .100 [2.54 x 2.54]
Centers

Double Row with Ejection
Latches, .025 [0.64] Square
Straight Post

Material and Finish

Housing — Thermoplastic 94V-0
rated, black

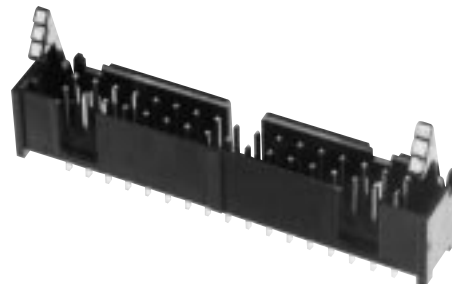
Contacts — Copper alloy, duplex plat-
ed .000030 [0.00076] gold on pin end,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end all
over nickel underplating with .000050
[0.00127] nickel

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos.	Part Numbers	
	Latching Height .585 [14.9] ¹	Latching Height .435 [11.0] ²
10	104128-1	104313-1
14	104128-2	104313-2
16	104128-3	104313-3
20	104128-4	104313-4
26	104128-5	104313-5
34	104128-6	—
40	104128-7	104313-7
50	104128-9	104313-9
60	1-104128-0	—

¹To be used when mating to receptacle with strain relief.

²To be used when mating to a receptacle without strain relief.



High Temperature Double Row,
.025 [0.64] Square Right-Angle
Post with Board Retention

Material and Finish

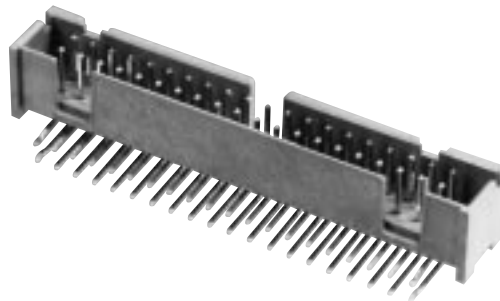
Housing — Thermoplastic 94V-0
rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

No. of Pos	Part Numbers	
	Plating A	Plating B
10	104340-1	—
14	104340-2	104341-2
24	—	104341-5
26	—	104341-6
50	104340-9	104341-9



High Temperature Double Row,
.025 [0.64] Square Straight
Post with Board Retention

Material and Finish

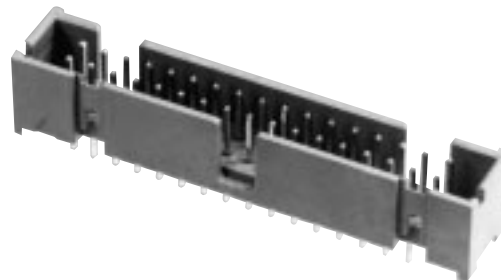
Housing — Thermoplastic 94V-0
rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

No. of Pos	Part Numbers	
	Plating A	Plating B
10	104338-1	104339-1
14	104338-2	104339-2
16	104338-3	—
20	104338-4	—
24	104338-5	—
26	—	104339-6
34	104338-7	—
40	104338-8	104339-8
50	104338-9	—



BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

Universal Ejection Style Pin
Headers, .100 x .100
[2.54 x 2.54] Centers

Military, Center and Dual
Polarized, Straight-Thru, 4-Sided,
.025 [0.64] Square Post

Material and Finish

Housing & Latches — Thermoplastic
94V-0 rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

Ribbon and Flexible Flat Cable Products (Continued)



Pin Header with Latches



Pin Header without Latches

No. of Pos.	Post Length Code	Pin Header Part Number		Pin Header Kit Number with Latches			
		Plating A	Plating B	Latch Part No. 102312-1 ¹		Latch Part No. 102320-1 ²	
10	1	102153-1	102154-1	499910-1	499160-1	499922-1	499206-1
	2	102155-1	—	—	499374-1	499923-1	102321-1
14	1	102153-2	102154-2	499910-2	499910-2	499922-2	499206-2
	2	—	102156-2	—	—	—	102321-2
16	1	102153-3	102154-3	499910-3	499160-3	499922-3	499206-3
	2	102155-3	102156-3	—	—	499923-3	102321-3
20	1	102153-4	102154-4	499910-4	—	499922-4	499206-4
	2	102155-4	102156-4	—	—	499923-4	102321-4
24	1	102153-5	102154-5	499910-5	—	499922-5	499206-5
	2	102155-5	—	—	—	—	102321-5
26	1	102153-6	102154-6	499910-6	—	499922-6	499206-6
	2	102155-6	102156-6	—	499374-6	499923-6	102321-6
30	1	102153-7	102154-7	—	499160-7	—	499206-7
	2	—	—	—	—	499923-7	—
34	1	102153-8	102154-8	499910-8	499160-8	499922-8	499206-8
	2	102155-8	102156-8	—	—	499923-8	102321-8
40	1	102153-9	102154-9	499910-9	499160-9	499922-9	499206-9
	2	102155-9	102156-9	—	499374-9	499923-9	102321-9
50	1	1-102153-0	1-102154-0	1-499910-0	1-499160-0	1-499922-0	1-499206-0
	2	1-102155-0	1-102156-0	—	—	1-499923-0	1-102321-0
60	1	1-102153-1	1-102154-1	—	—	1-499922-1	1-499206-1
	2	1-102155-1	1-102156-1	—	—	—	—
64	1	1-102153-2	1-102154-2	—	—	—	—
	2	1-102155-2	1-102156-2	—	—	1-499923-2	1-102321-2

¹Mates with AMP-LATCH receptacles without strain relief.

²Mates with AMP-LATCH receptacles with strain relief.

ACTION PIN Contacts, Military,
Center and Dual Polarized,
Straight-Thru, 4-Sided, .025
[0.64] Square Post

Material and Finish

Housing — Thermoplastic 94V-0
rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

No. of Pos.	Part Numbers	
	Plating A	Plating B
10	499984-1	499582-1
14	499984-2	499582-2
16	499984-3	499582-3
20	499984-4	499582-4
24	499984-5	499582-5
26	499984-6	499582-6
30	499984-7	—
34	499984-8	499582-8
40	499984-9	499582-9
50	1-499984-0	1-499582-0
60	—	1-499582-1
64	—	1-499582-2



Pin Header without Latches
Post Length .174 [4.42]
for .093-.125 [2.36-3.18]
Thick PC Board

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

Universal Ejection Style Pin
Headers, .100 x .100
[2.54 x 2.54] Centers

Military, Center and Dual
Polarized, Right-Angle, 4-Sided,
.025 [0.64] Square Post

Material and Finish

Housing & Latches — Thermoplastic
94V-0 rated, black

Contacts —

A. Copper alloy, duplex plated .000015
[0.00038] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

B. Copper alloy, duplex plated .000030
[0.00076] gold on pin end, .000100-
.000200 [0.00254-0.00508] bright tin-
lead on termination end all over nickel
underplating with .000050 [0.00127]
nickel

Ribbon and Flexible Flat Cable Products (Continued)



Pin Header with Latches



Pin Header without Latches

No. of Pos.	Post Length Code	Pin Header Part Number		Pin Header Kit Number with Latches			
		Plating A	Plating B	Latch Part No. 102312-1 ¹		Latch Part No. 102320-1 ²	
				Plating A	Plating B	Plating A	Plating B
10	1	102159-1	102161-1	499913-1	—	499786-1	—
	2	102160-1	102162-1	—	—	499141-1	102322-1
14	1	102159-2	—	—	—	—	—
	2	102160-2	—	—	—	499141-1	102322-2
16	1	102159-3	—	499913-3	—	499786-3	—
	2	102160-3	—	—	—	499141-3	—
20	1	102159-4	—	—	—	499786-4	—
	2	102160-4	—	—	—	499141-4	102322-4
24	1	102159-5	—	—	—	—	—
	2	102160-5	—	—	—	—	—
26	1	102159-6	102161-6	499913-6	—	499786-6	—
	2	102160-6	102162-6	—	—	499141-6	102322-6
30	1	102159-7	—	—	—	—	—
	2	102160-7	—	—	—	—	—
34	1	102159-8	—	—	—	499786-8	—
	2	102160-8	—	—	—	499141-8	—
40	1	102159-9	—	499913-9	—	499786-9	—
	2	102160-9	102162-9	499345-9	—	499141-9	—
50	1	1-102159-0	1-102161-0	1-499913-0	—	1-499786-0	—
	2	1-102160-0	1-102162-0	—	—	1-499141-0	1-102322-0
60	1	1-102159-1	—	—	—	—	—
	2	1-102159-2	—	—	—	1-499786-2	—
64	1	1-102160-1	—	—	—	—	—
	2	1-102160-2	—	—	—	1-499141-2	—

¹Mates with AMP-LATCH receptacles without strain relief.

²Mates with AMP-LATCH receptacles with strain relief.

Center and Military Polarized,
Right-Angle, 3-Sided, .025
[0.64] Square Post

Material and Finish

Housing — Thermoplastic 94V-0
rated, black

Contacts — Copper alloy, duplex plat-
ed .000015 [0.00038] gold on pin end,
.000100-.000200 [0.00254-0.00508]
bright tin-lead on termination end all
over nickel underplating with .000050
[0.00127] nickel



Pin Header without Latches
Post Length .110 [2.79]
10 Positions
Part No. 746101-1

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

Universal Ejection Style Pin Headers, .100 x .100
[2.54 x 2.54] Centers

High Temperature, Thru-Hole (SMT Compatible) .025 [0.64] Square Post — Straight-Thru

Material and Finish

Housing — Thermoplastic 94V-0 rated, black

Contacts — Phosphor bronze or brass (option of AMP), duplex plated .000030 [0.00076] gold on pin end, .000150 [0.0038] matte tin-lead on solder tail, all over underplated with .000050 [0.00127] nickel

No. of Pos.	Straight-Thru Part Number
14	111008-2
24	111008-5
50	1-111008-0

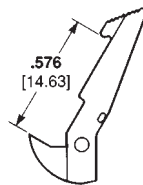


Straight-Thru Pin Header

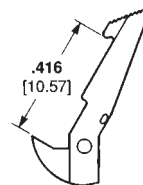
Latches for Ejection Style Pin Headers and Pinless Headers

Material

Latch — Thermoplastic 94V-0 rated, black



Latch
Part No. **102320-1**
(without Push Tabs)



Latch
Part No. **102312-1**
(without Push Tabs)

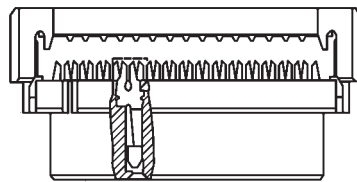
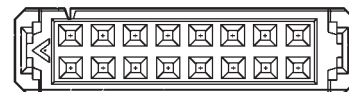
2.0mm [.079] Receptacle Connectors, Non-Polarized and Center Polarizing Bar

Material and Finish

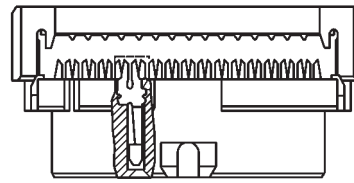
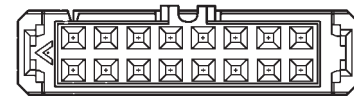
Housing and Termination Cover — Thermoplastic 94V-0 rated, black

Contacts — Beryllium copper, duplex plated 0.00076 [0.00030] gold on mating end, 0.00254 [0.00100] min. tin-lead on termination end, all over nickel underplated with 0.00127 [0.00050] nickel

Note: Accepts 0.08-0.09mm² [28 AWG] ribbon cable, 0.61-0.97 [.024-.038] thk. PVC 1.00 [.039] pitch



Non-Polarized



Polarized

No. of Pos.	Part Numbers	
	Feed-Thru Cover Polarized	Feed-Thru Cover Non-Polarized
8	—	1-111626-6
12	1-111623-7	—
14	111623-2	—
20	111623-4	111626-4
26	111623-6	—
40	—	111626-9
44	1-111623-0	1-111626-0
50	—	1-111626-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

.039 [1.00] Centerline, Flat Ribbon Cable, PVC Insulation, 28 AWG Stranded 7/36 Tinned Copper

Electrical Ratings

Voltage — 150 Volts

Impedance — 80 Ohms

Capacitance — 18.3 pF/ft at 1 MHz

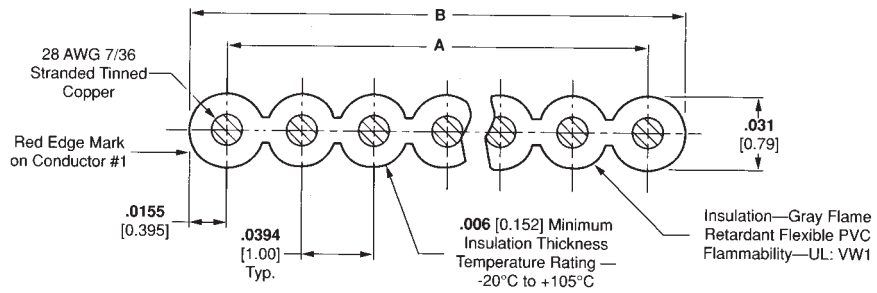
Propagation Delay — 1.47 ns/ft nom.

Insulation Resistance — 10^{10} Ohms/10 ft [3.048m]

Crosstalk — 10 ft sample, 5 ns rise time with 2 lines driven,
Near end - 4.0% max.
Far end - 6.0% max.

Cable Surface — Printed with UL and CSA requirements

Ribbon and Flexible Flat Cable Products (Continued)



No. of Conductors	Dimensions		Part Numbers	
	A	B	100 ft. [30.5 m] Reel	500 ft. [152.4 m] Reel
44	1.693 43.00	1.724 43.79	2-57051-8	1-57051-2
50	1.929 49.00	1.960 49.79	2-57051-9	1-57051-3

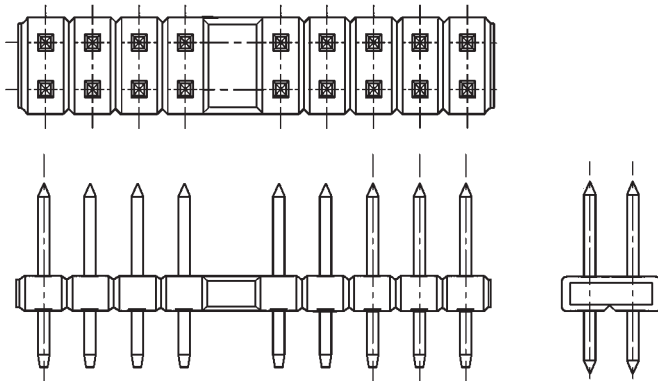
Breakaway Headers, Unshrouded, Double Row, Thru-Hole Mount, 0.5 [.02] Square Straight Posted Contacts

Material and Finish

Housing — Thermoplastic 94V-0 rated, black

Contacts — Brass, duplex plated 0.00076 [.000030] gold on contact area, 0.0038 [.000150] min. tin-lead on solder area, all over underplated with 0.00130 [.000051] nickel

50 Positions
Lead Length 2.6 [.10]
Part No. 4-176264-8



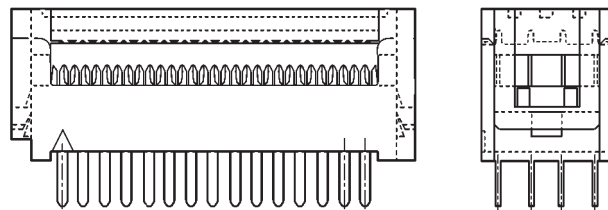
System 50 Cable-to-Board Connectors, .025 [0.64] Centerline, Paddleboard Receptacle

Material and Finish

Housing — LPC thermoplastic, 94V-0 rated, black

Contacts — Copper alloy plated .000100-.000200 [0.00254-0.00508] bright tin-lead over .000050-.000100 [0.00127-0.00254] nickel underplating

68 Positions
Kinked Legs
Part No. 1-111595-9



For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

System 50 Cable-to-Board Ribbon Cable Connectors, .025 [0.64] Centerline Cable

Double Row Receptacles

Material and Finish

Housing — Thermoplastic 94V-0 rated, black

Latches — Stainless Steel

Contacts — Beryllium copper, plated gold-over-nickel on mating end, tin-lead on termination end

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos.	Part Number	No. of Pos.	Part Number
10	111196-1	50	1-111196-1
20	111196-4	60	1-111196-2
24	111196-5	68	1-111196-7
26	111196-6	80	1-111196-5
30	111196-7	100	1-111196-6
40	111196-9		



AMP-LATCH System 50
Cable-to-Board Connector

.025 [0.63] Centerline IDC Ribbon Cable, PVC Insulation, 30 AWG Solid Bare Copper and 32 AWG Stranded Tinned Copper

Electrical Ratings

Voltage — 150 Volts

Impedance — 80 Ohms (GND, SIG, GND)

Capacitance — 19.2 pF/ft at 1 MHz

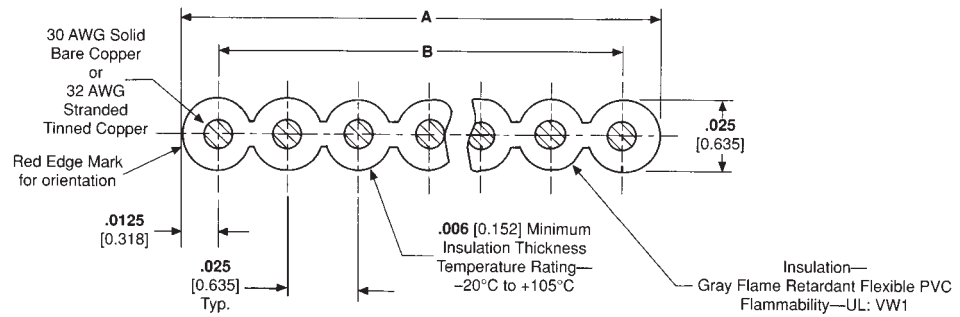
Propagation Delay — 1.51 ns/ft nom.

Insulation Resistance — 10^{10} Ohms/10 ft [3.048m]

Crosstalk — 10 ft sample, 5 ns rise time,

Near end - 4.0% max.
Far end - 6.0% max.

Cable Surface — Printed with UL and CSA requirements



No. of Conductors	Dimensions		Part Numbers		
	A	B	30 AWG Solid Bare 100 ft. [30.5m]	32 AWG 7/40 Stranded 500 ft. [152.4m]	32 AWG 7/40 Stranded 100 ft. [30.5m]
20	.475 12.07	.500 12.70	1-57013-3	—	—
24	.575 14.61	.600 15.24	1-57013-4	—	—
30	.725 18.42	.750 19.05	1-57013-5	—	—
40	.975 24.77	1.000 25.40	1-57013-7	—	—
50	1.225 27.94	1.250 31.75	1-57013-9	—	—
60	1.475 37.47	1.500 38.10	—	—	2-57038-0
68	1.675 42.55	1.700 43.18	3-57013-1	1-57013-1	—
80	1.975 50.17	2.000 50.80	2-57013-3	—	—
100	2.475 62.87	2.500 63.50	2-57013-4	—	—

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

.025 [0.63] Centerline IDC
Ribbon Cable, PVC Insulation,
30 AWG Stranded Tinned
Copper

Electrical Ratings

Voltage — 150 Volts

Impedance — 66 Ohms (GND, SIG,
GND)

Capacitance — 23 pF/ft at 1 KHz

Propagation Delay — 1.55 ns/ft
nom.

Insulation Resistance — $>10 \times 10^{10}$
Ohms/10 ft [3.048m]

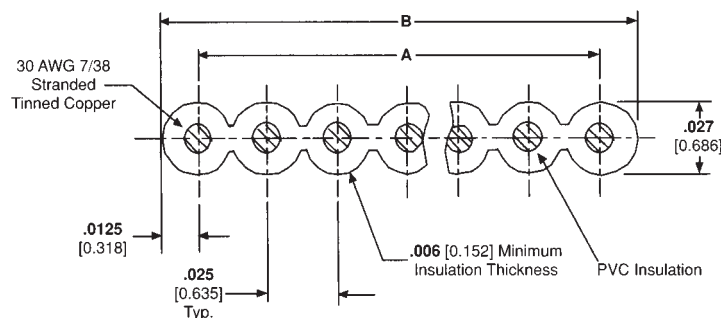
Crosstalk — 10 ft sample, 5 ns rise
time,

Near end - 2.8% max.

Far end - 4.5% max.

Cable Surface — Printed with UL and
CSA requirements

Ribbon and Flexible Flat Cable Products (Continued)



No. of Conductors	Dimensions		Part Numbers	
	A	B	100 ft. [30.5 m] Reel	500 ft. [152.4 m] Reel
68	1.675	1.700	—	1-57131-1
	42.55	43.18		
80	1.975	2.000	2-57131-3	—
	50.17	50.80		

AMPLIMITE HDF-20 Low Profile Metal Shell Receptacle Assemblies (For Round Conductor Flat Ribbon Cable)

Material and Finish

Front Shell — Steel, tin plated

Housing, Cover & Cable Stabilizer —
Thermoplastic 94V-0 rated, black

Socket Contacts — Phosphor bronze,
duplex plated .000030 [0.00076] gold on
mating end, .000100-.000200 [0.00254-
0.00508] bright tin-lead on termination
end, all over underplating with .000050
[0.00127] nickel

No. of Pos.	Shell Size	Part Numbers	
		with Standard Mounting Holes	with Threaded Inserts
15	2	—	747052-3
25	3	747303-2	—
37	4	747303-1	747052-1



For Complete Product Information, Order Catalog 82012

AMP-LATCH Connectors

ECONOLATCH Center and Military Polarization Connectors

40-Position IDC Receptacle Assembly Part No. 111918-9

Material & Cover — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, duplex plated .000015 [0.00038] min. gold on mating end, .000100 [0.00254] min. tin-lead on termination end, entire contact underplated .000050 [0.00127] min. nickel



ECONOLATCH
Receptacle Assembly

.050 [1.27] Centerline, Flat Ribbon Cable, PVC Insulation, 28 AWG Stranded Tinned Copper

Electrical Ratings

Voltage — 300 Volts

Impedance — 105 ohms nom. (GND, SIG, GND)

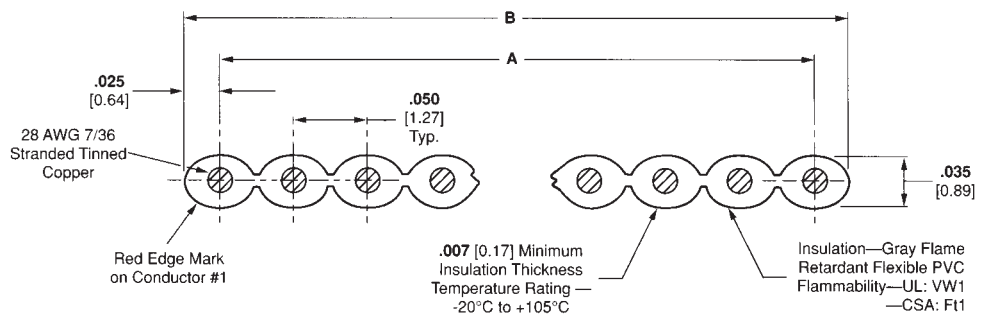
Capacitance — 15 pF/ft at 1 MHz

Propagation Delay — 1.41 ns/ft nom.

Insulation Resistance — 10,000 Megohms/10 ft [3.048m]

Crosstalk — 10 ft sample, 5 ns rise time with 2 lines driven,
Near end - 4.0% max.
Far end - 6.0% max.

Cable Surface — Printed with UL and CSA requirements



No. of Conductors	Dimensions		Part Numbers	
	A	B	100 ft. [30.5 m] Reel	500 ft. [152.4 m] Reel
9	.400 10.16	.450 11.43	1-57040-2	1-971111-2
10	.450 11.43	.500 12.70	1-57040-3	1-971111-3
14	.650 16.51	.700 17.78	1-57040-4	1-971111-4
15	.700 17.78	.750 19.05	1-57040-5	—
16	.750 19.05	.800 20.32	1-57040-6	1-971111-6
20	.950 24.13	1.000 25.40	57040-1	971111-1
24	1.150 29.21	1.200 30.48	1-57040-1	1-971111-1
25	1.200 30.48	1.250 31.75	57040-2	971111-2
26	1.250 31.75	1.300 33.02	57040-3	971111-3
28	1.350 34.29	1.400 35.56	57040-8	—
30	1.450 36.83	1.500 38.10	2-57040-1	—
34	1.650 41.91	1.700 43.18	57040-4	971111-4
36	1.750 44.45	1.800 45.72	—	2-971111-5
40	1.950 49.53	2.000 50.80	57040-5	971111-5
44	2.150 54.61	2.200 55.88	2-57040-4	—
50	2.450 62.23	2.500 63.50	57040-6	971111-6
60	2.950 74.93	3.000 76.20	57040-7	971111-7
64	3.150 80.01	3.200 81.28	2-57040-2	2-971111-2

For Complete Product Information, Order Catalog 82012

CHAMP Miniature Ribbon Connectors

CHAMP IDC Connectors

Material and Finish

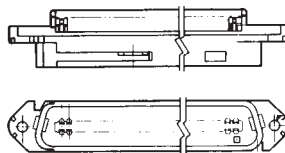
Housing — Self-Extinguishing plastic

Contacts — Copper alloy, plated .000030 [0.00076] gold on contact area, all over .000050 [0.00127] nickel underplate

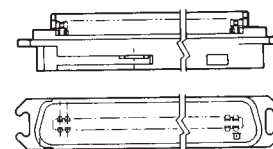
Color Code	Letter Code	Wire Range (AWG)
Blue	B	(1) 24-26 Solid or 24 Stranded
Green	C	(1) 22 Solid or Stranded
Yellow	E	(1) 26, 27 or 28 Stranded

Ribbon and Flexible Flat Cable Products (Continued)

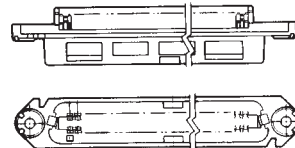
Style PS — Plug, Screw Lock, Thick Flange



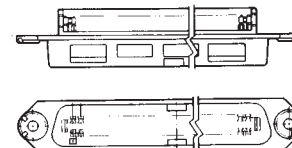
Style PB — Plug, Bail Lock



Style RS — Receptacle, Screw or Bail Lock, Thick Flange



Style RP — Receptacle, Panel Mount, Screw or Bail Lock, Thin Flange



No. of Pos.	Wire Size ¹		Housing Color Dot	Part Numbers			
	Solid AWG/mm	7-Strand AWG/mm ²		Plug		Receptacle	
				Style PS	Style PB	Style RS	Style RP
14	22 0.65	22 0.40	Green	552300-1	—	—	—
24				552301-1	552317-1	—	—
50				552173-1	552319-1	552064-1	—
64				552303-1	—	552307-1	—
14	24-26 0.51-0.40	24 0.20	Blue	552282-1	552270-1	552312-1	2-552271-1
24				552283-1	552272-1	552313-1	—
36				552284-1	552274-1	552314-1	2-552275-1
50				229974-1	552032-1	229975-1	2-552001-1
64				552285-1	552276-1	552315-1	2-552277-1
24	— —	26-27-28 0.14, 0.10, 0.09	Yellow	—	—	—	2-552474-1
36				—	552470-1	—	—
50				552390-1	552471-1	552391-1	2-552476-1
64				552488-1	—	—	—

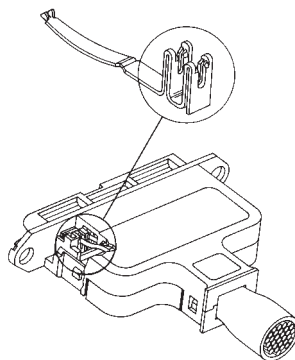
¹Insulation Diameter .045 [1.14] depending on type of insulation and applier tool.

CHAMP Large Insulation Wire Connectors

Material and Finish

Housing — Self-Extinguishing plastic

Contacts — Copper alloy, plated .000030 [0.00076] gold on contact area, all over .000050 [0.00127] nickel underplate



No. of Pos.	Wire Size ¹		Housing Color	Part Numbers			
	Solid AWG/mm	7-Strand AWG/mm ²		Plug		Receptacle	
				Style PS	Style PB	Style RS	Style RP
36			Brown	—	—	5-555037-1	—
50	22	22		556039-1	—	555227-1	—
64	0.64	0.40		556409-1	555753-1	—	555151-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors**Integral Locking Latch Receptacle****Material and Finish****Housing** — Self-Extinguishing plastic**Contacts** — Copper alloy, plated .000030 [0.00076] gold on contact area, all over .000050 [0.00127] nickel underplate**Ribbon and Flexible Flat Cable Products (Continued)**

No. of Pos.	Housing Color Dot	Contact Letter Code ¹	Part Number
50	Blue	B	553921-1
64	Blue	B	554381-2

¹See previous page for letter code information.**Cable-to-Cable Applications****Cable-to-Cable Plug and Receptacle with Tapered Cover and Screw****Material and Finish****Housing** — Self-Extinguishing plastic**Contacts** — Copper alloy, plated .000030 [0.00076] gold on contact area, all over .000050 [0.00127] nickel underplate**Cable-to-Cable Hardware Kit (for use with 90° Strain Relief Cover - 1 kit required per assembly)****Part No. 552561-4**

Cable Diameter Range	Contact Letter Code ¹	Dust Cover	Part Numbers		
			Plug		Receptacle Black
			Black	Gray	
Up to .550 13.97	C	No	552382-1	—	552383-1
.350-.425 8.89-10.80	B	No	6-229912-1 ²	—	6-229913-1 ²
		Yes	1-229912-1	1-229912-4	1-229913-1
		Yes	6-229912-3 ²	—	6-229913-3 ²
.425-.500 10.80-12.70	B	No	2-229912-1	—	2-229913-1
		Yes	—	—	—
.350-.425 8.26-10.80	E	No	552402-1	—	552403-1

¹See previous page for letter code information.²These part numbers are bulk packed in quantities of 500.**Cable-to-Cable Accessories — Dust Cover**

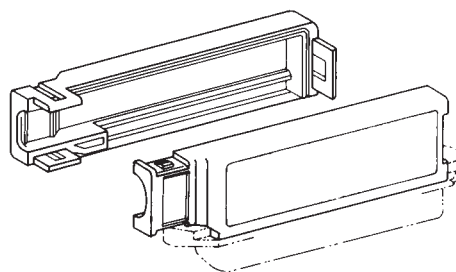
No. of Pos.	Part Numbers	
	Plug Cover (Blue)	Receptacle Cover (Red)
24	229968-4	229969-4
36	229968-3	229969-3
50	229968-1	229969-1
64	229968-2	229969-2

For Complete Product Information, Order Catalog 82008

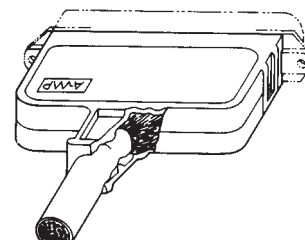
CHAMP Miniature Ribbon Connectors

Cable-to-Cable Accessories — Snap-On Strain Relief Covers

Ribbon and Flexible Flat Cable Products (Continued)



90° Snap-On Strain Relief Cover

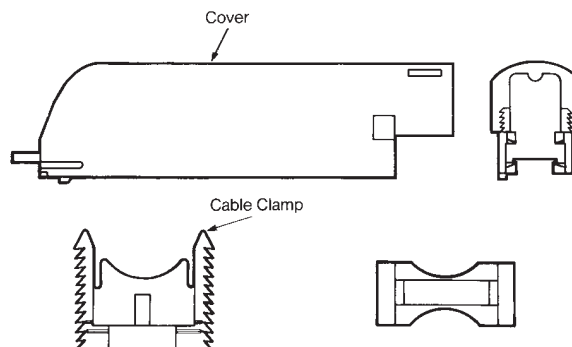


180° Snap-On Strain Relief Cover

No. of Pos.	Cable Range Diameter	90° Part Number
14	.185-.230 4.70-5.84	552412-1
	.250-.300 6.35-7.62	1-552412-1
	.250-.300 6.35-7.62	552413-1
24	.305-.360 7.75-9.14	1-552413-1
	.305-.360 7.75-9.14	552414-1
	.330-.380 8.38-9.65	3-552414-1
36	.315-.415 8.00-10.54	1-552011-1
	.415-.465 10.54-11.81	552011-1
	.410-.475 10.41-12.07	552496-1
64	.475-.540 12.07-13.72	1-552496-1
	.540-.605 13.72-.605	2-552496-1

No. of Pos.	Cable Range Diameter	180° Part Number
14	.175-.220 4.45-5.59	552079-1
	.265-.310 6.73-7.87	2-552079-1
	.230-.280 5.84-7.11	552076-1
24	.280-.320 7.11-8.13	1-552076-1
	.320-.380 8.13-9.65	2-552076-1
	.290-.360 7.37-9.14	552073-1
36	.360-.430 9.14-10.92	552073-5
	.430-.500 10.92-12.70	552073-6
	.330-.380 9.38-9.65	3-552008-1
50	.380-.430 9.65-10.92	2-552008-1
	.430-.490 10.92-12.45	552008-1
	.480-.550 12.19-13.97	4-552008-1
64	.430-.500 10.92-12.70	552003-1
	.480-.540 12.19-12.70	552082-1
	.540-.610 13.72-15.49	1-552496-1

Cable-to-Cable Accessories — 90° Standard Slide-On Strain Relief Cover and Adjustable Cable Clamp for 50 Position CHAMP-LOK or Screw Lock Hardware, Cable Dia. .425 [10.80] Max.



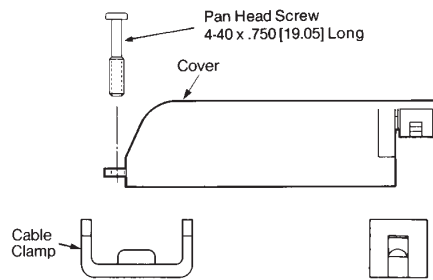
Cover Part No. 552760-1
Cable Clamp Part No. 552763-1
Color Black

For Complete Product Information, Order Catalog 82008

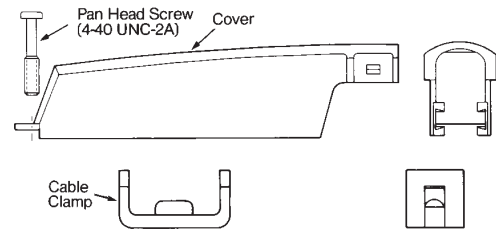
CHAMP Miniature Ribbon Connectors

Cable-to-Cable Accessories —
90° Standard and Tapered
Slide-On Strain Relief Cover
Kit for 50 Position Connectors

Ribbon and Flexible Flat Cable Products (Continued)



90° Standard Slide-On Strain Relief Cover Kit



90° Tapered Slide-On Strain Relief Cover Kit

Cable Range Diameter	Kit Part Numbers		Component Part Numbers			
	Standard Cover	Tapered Cover	Cable Clamp	Screw	90° Tapered Cover	90° Slide-On Cover
.425-.500 10.80-12.70	552960-1	552560-5	1-229910-1	229911-1	229909-1	552617-1
.350-.425 8.89-10.80	552960-2	—	229910-1	229911-1	229909-1	—
.325-.370 8.26-9.40	—	—	—	229911-1	229909-1	—
.300-.325 7.62-8.26	—	—	—	229911-1	229909-1	—
.500-.550 12.70-13.97	552960-5	—	4-229910-1	229911-1	229909-1	—

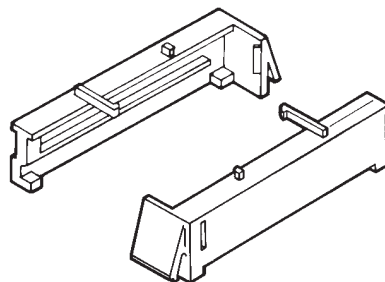
Cable-to-Panel Snap-On Strain Relief

No. of Positions	Low Profile Part Number
14	1-552299-1
50	1-552027-1
64	1-552296-1



Cable-to-Panel Snap-In Panel
Mount Strain Relief — 50
Position for .090 [2.29] Panel
Thickness (No additional hard-
ware required)

Part No. 552962-3 (Black)



For Complete Product Information, Order Catalog 82008

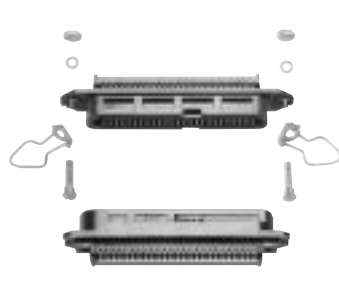
CHAMP Miniature Ribbon Connectors

Cable-to-Panel Hardware Kits
(One kit required per assembly)

Ribbon and Flexible Flat Cable Products (Continued)



Screw Lock Hardware Kit
For Rear Panel Mount
Applications
Part No. 552568-1



Bail Lock Hardware Kit
Part No. 552567-1



Bent Bail Lock Hardware Kit
For 90° Strain Relief Cover
Part No. 552567-2

Shielded Cable Connector Kits

Material and Finish:

Housing and Cover—Thermoplastic, black

Terminals—Gold over nickel plated high strength copper alloy

Shield—Bright nickel plated carbon steel

Strain Relief—Flame retardant NYLON, black

Ferrule—Copper alloy

Hardware—Zinc plated steel

Specifications:

Insulation Diameter—
.045 [1.14] max.

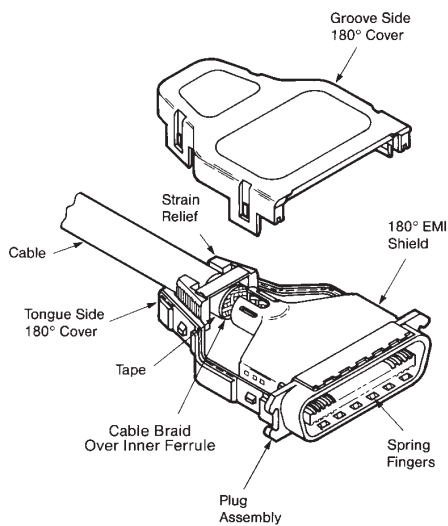
**Terminal Center-to-Center
Spacing**—.085 [2.16]

Slot Designation stamped on contacts which are preloaded in housing.

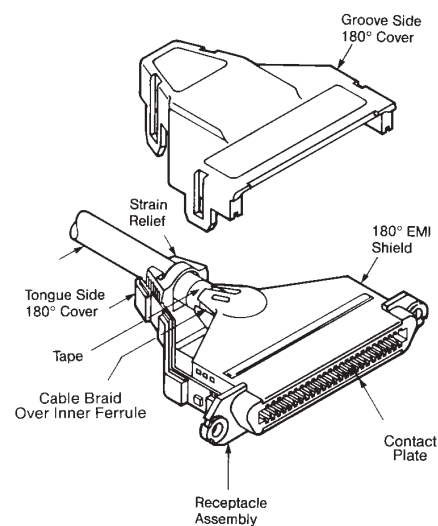
B-Slot—24 AWG [0.51 mm] and 26 AWG [0.40 mm] (solid) or 24 AWG [0.20 mm²] (7 strand)

E-Slot—26-27-28 AWG [0.12-0.10-0.09 mm²] (7 strand) wire

Note: Connector kits shipped unassembled.



Plug Connector Kit



Receptacle Connector Kit

Inner Ferrule



Inside Diameter	Inner Ferrule Part Number
.450 11.43	554725-5
.500 12.7	554725-6

No. of Positions	Cable Range	Part Numbers						
		Shielded Plug Kit				Shielded Receptacle Kit		Cover Kits
		Screw Lock		Bail Lock		Screw or Bail Lock		
		B Slot	E Slot	B Slot	E Slot	B Slot	E Slot	
24	.250-.500 6.35-12.70	554948-4 ⁵	554948-3 ⁴	—	—	—	—	554944-1
36	.250-.500 6.35-12.70	554951-2	—	554950-2	554950-1	—	—	554945-1
50	.350-.625 8.89-15.88	—	554954-1	554953-2 ¹	554953-1 ¹	554955-2 ²	554955-1 ²	554946-1 ³ 554946-2

¹SCSI applicable.

²SCSI applicable with Hardware Kit Part Number 552561-6.

³For cable diameter of .500 [12.70] or less use -1 kit. For cable diameter greater than .500 [12.70] use -2 kit.

⁴Connector with M3.5 threads kits includes M3.5 x 2.00 [50.80] standoff stud.

⁵M3.5 x 0.6-6G, shoulder stud screws (2) supplied.

For Complete Product Information, Order Catalog 82008

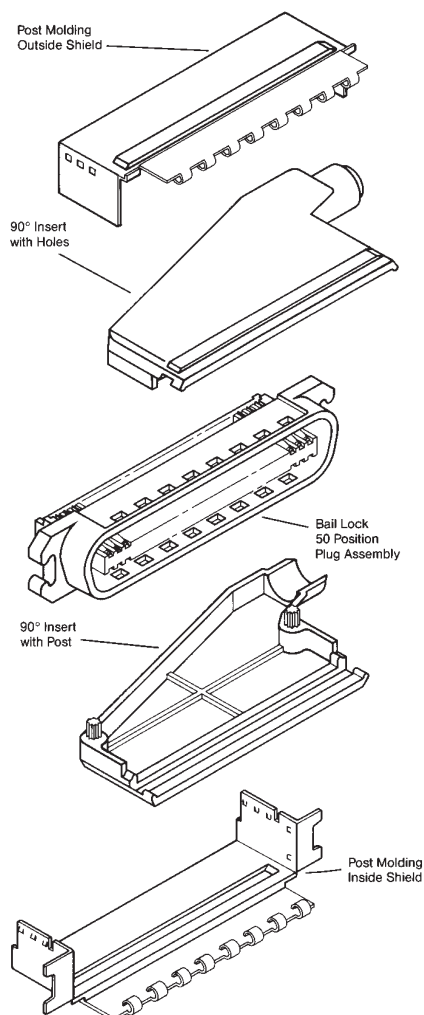
CHAMP Miniature Ribbon Connectors

Shielded Cable Connector Kits (Continued)

50 Position Plug Kit, 90° Cable Exit for Post Molding Operation

7- Strand, 26-27-28 AWG
[0.14, 0.10, 0.09 mm²]
Part No. 5-555012-2 (Gray)

Ribbon and Flexible Flat Cable Products (Continued)



Shielded CHAMP Latch Panel Mount Connectors for .050 [1.27] Ribbon Cable

Material and Finish:

Housing and Strain Relief Clip—Thermoplastic (black)

Terminals—Gold over nickel plated high strength copper alloy on mating face and gold flash over nickel plate on terminating side

EMI Shield—Nickel plated die casting



No. of Pos.	Loose Piece Part Numbers	Preamsembled Part Numbers		
		Bail Lock 4-40	Screw Lock 6-32	Screw Lock 4-40
24	554349-1 ⁴	—	554434-1 ⁴	—
36	554348-1	559983-1 ¹	—	—
50	554350-1	554902-1 ^{1,3}	—	554436-2 ^{2,3}

¹Does not have boss feature. Boss is a .040 [1.02] shoulder on front of shield.

²SCSI applicable with Bail Lock Hardware Kit **Part Number 554818-2**.

³SCSI applicable.

⁴Can be used with Interface Bus Applications per IEEE-488.

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

Shielded CHAMP Latch Panel Mount Connectors Hardware Kits — Loose Piece Shield

Material and Finish:

Mounting Stud—Bright zinc plated carbon steel

Pan Head Screw—Passivated stainless steel

Metric Standoff Stud—Black oxide coated carbon steel

Ribbon and Flexible Flat Cable Products (Continued)

Metric Screw Lock Hardware Kit For IEEE-488 Applications
Front Panel Mount Part No. 553636-2
Rear Panel Mount Part No. 553636-3



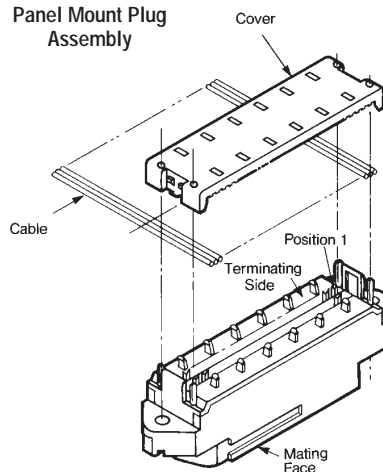
Standard CHAMP Latch Low Profile Connectors

Material and Finish:

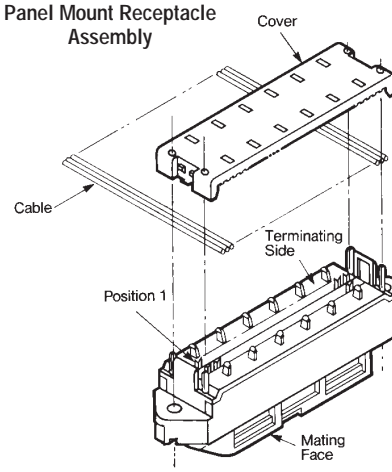
Housing and Covers—Thermoplastic (black)

Terminals—Gold over nickel plated high strength copper alloy on mating face and gold flash over nickel plate on terminating side

Panel Mount Plug Assembly



Panel Mount Receptacle Assembly



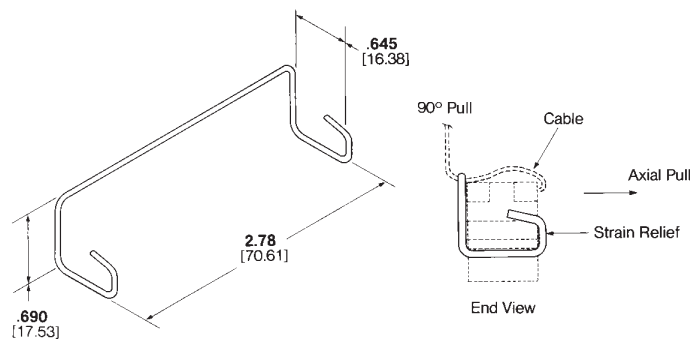
No. of Pos.	Part Numbers				
	Bail Lock Plug Assembly	Screw Lock Plug Assembly	Screw Lock Receptacle Assembly	Panel Mount Plug Assembly	Panel Mount Receptacle Assembly
14	—	553596-1	553597-1	—	—
24	—	553598-1	553599-1	554103-1	554088-1
36	554084-1	553600-1	553601-1	—	554089-1
50	554085-1	553602-1	553603-1	—	554090-1

CHAMP Latch Cable Strain Relief Clip

Part No. 554099-1

Material and Finish:

Stainless steel wire .050 [.127] dia.



For Complete Product Information, Order Catalog 82008

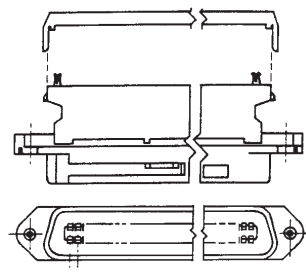
CHAMP Miniature Ribbon Connectors

CHAMP Latch Connectors — 64 Position

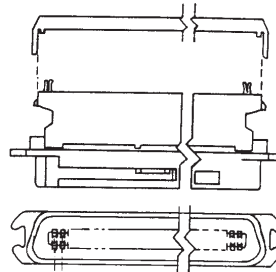
Material and Finish:

Housing and Covers—
Thermoplastic (black)

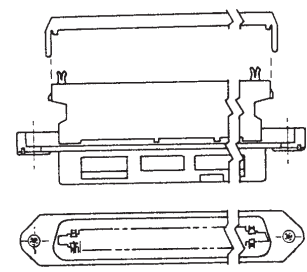
Terminals—Gold over nickel plated high strength copper alloy on mating face and gold flash over nickel plate on terminating side



Style PS



Style PB



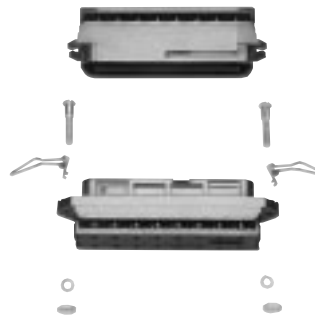
Style RS

Style	Part Number
PS	552837-1
PB	552933-1
RS	552838-1

CHAMP Latch Low Profile Connectors Cable-to-Cable Hardware Kits



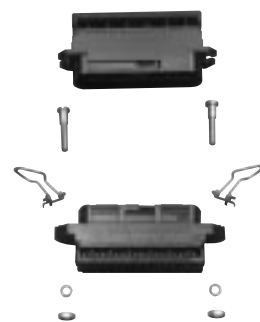
CHAMP-LOK Hardware Kit
Part No. 552723-1 (36 & 50 Pos.)
Part No. 552723-2 914 & 24 Pos.)



Bail Lock Hardware Kit
Part No. 552561-3



Screw Lock Hardware Kit
Rear Panel Mount Application
Part No. 552568-2



Bail Lock Hardware Kit
Part No. 552567-3



CHAMP-LOK Hardware Kit
Part No. 553359-1 (36 & 50 Pos.)

For Complete Product Information, Order Catalog 82008

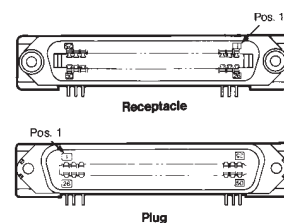
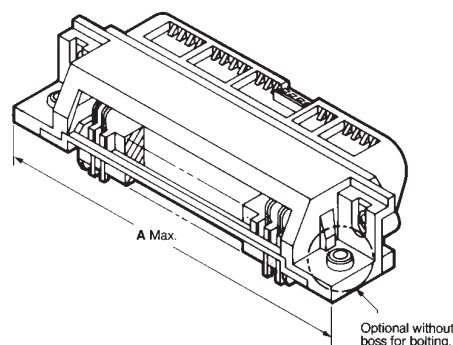
CHAMP Miniature Ribbon Connectors

CHAMP PC Board Connectors — Right-Angle

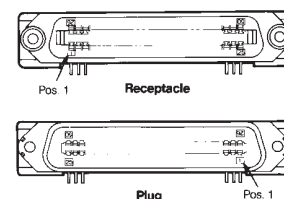
Material and Finish:

Housing Bracket, Plate & Comb—
Thermoplastic 94V-0 rated, black

Terminals—Gold over nickel plated
high strength copper alloy on mating
face and tin plated tails



Standard Orientation



Reverse Orientation

No. of Pos.	Dim. A	Self Tapping Part Numbers			
		Standard Orientation		Reverse Orientation	
		Receptacle	Plug	Receptacle	Plug
14	1.750 44.45	552738-1	—	—	—
36	2.685 68.20	552742-1	552743-1	552742-2	—
50	3.280 83.31	552725-1 552725-2 ¹	552726-1 ¹ —	552725-3 —	552726-3 ¹ —
64	3.875 98.43	552744-1	552745-1	—	—

¹Thru-Bolt Mounting.

CHAMP PC Board Connectors — Vertical & Edge Mount

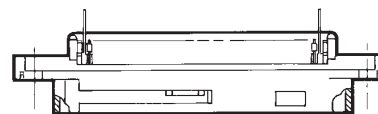
Material and Finish:

Housing Bracket, Plate & Comb—
Thermoplastic 94V-0 rated, black

Terminals—Gold over nickel plated
high strength copper alloy on mating
face and tin plated tails



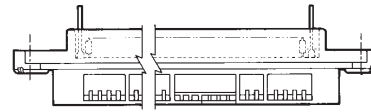
Plug Style PV Vertical Mount, Screw Lock



Plug Style PE Edge Mount, Screw Lock



Receptacle Style RV, Screw or Bail Lock



Receptacle Style RE, Screw or Bail Lock

No. of Pos.	Part Numbers			
	Plug		Receptacle	
	Style PV Vertical Mount	Style PE Edge Mount	Style RV Vertical Mount	Style RE Edge Mount
14	552209-1	—	552212-1	—
24	552221-1	—	—	552230-1
36	552232-1	—	552235-1	—
50	552116-1	552126-1	552118-1	—
64	552243-1	—	552246-1	—

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

Vertical Mount Connector Hardware Kits

Screw Lock Hardware Kit
Part No. 552563-1Bent Bail Lock Hardware Kit
Part No. 552562-2Bail Lock Hardware Kit
Part No. 552562-1J-Hook Screw Lock Hardware Kit
Part No. 552690-1

ACTION PIN Connectors



No. of Pos.	Part Numbers	
	Plug	Receptacle
14	—	553443-1
24 ¹	—	553443-2
36	—	553443-3
50	553444-4	553443-4
	554758-1 ^{2,3}	554753-1 ²
64	553444-5	557984-1 ⁴
	554759-1 ²	553443-5

¹For IEEE-488 Applications use **Part No. 553609-1**.²Connector contains self retained terminals.³For capacitive filtered connector, order **P/N 93510-X**. Refer to Catalog 65696 for more information.⁴Shielded for screw lock application.Shielded PC Board Connectors
— Right-Angle, Preassembled

Material and Finish:

Housing Bracket, Connector Comb,
& Terminal Support Plate—
Thermoplastic, black**Terminals**—Gold over nickel plated
high strength copper alloy on mating
face and tin plated tails**EMI Shield**—Nickel plated die casting

Preassembled Screw Lock



Preassembled Bail Lock

No. of Pos.	Screw Size	Part Numbers		
		Screw Lock		Bail Lock
		Standard	Reverse	Standard
24	6-32	553811-1 ²	—	—
36	4-40	—	—	555233-1
50	4-40	—	553813-4 ^{1,3}	554901-1 ¹

¹SCSI applicable.²Can be used with Interface Bus Application per IEEE-488.³For capacitive filtered connector, order **Part No. 93533-X**. Refer to Catalog 65696 for additional filtered connector information.**BLUE** part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

Shielded PC Board Connectors — Right-Angle, Board Locking Grounding

Material and Finish:

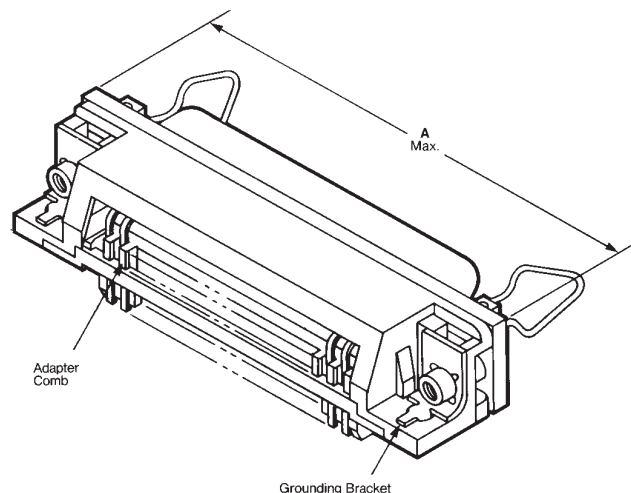
Housing Bracket, Connector Comb, & Terminal Support Plate—Thermoplastic, black

Bail Clip—Passivated stainless steel

Receptacle Shield—Bright nickel over copper plated die casting

Terminals—Gold over nickel plated high strength copper alloy on mating face and tin plated tails

Ground Bracket—Tin-lead plated carbon steel



No. of Positions	Dimension A	Hardware Type	Screw Size	Part Numbers	
				Standard	Low-Profile
24	2.205 56.01	Screw Lock	6-32	554923-2¹	555139-1 ⁵ 555139-2 ⁵
36	2.715 68.96	Bail Lock	4-40	555119-1¹ 555520-2 ^{1,4}	—
50	3.320 84.33	Bail Lock	4-40	555057-1 ^{1,2,6}	—
50	3.320 84.33	Screw Lock	4-40	557932-2⁷	—

Special Low-Profile Connectors—Compatible with IBM PC AT and PC XT

No. of Positions	Dimension A	Hardware Type	Screw Size	Part Numbers	
				Standard	Reverse
50	3.310 84.07	Bail Lock	4-40	555149-1 ^{2,3}	555149-3 ³

¹Maximum Pc board thickness is .062 [1.57], A = .450

²SCSI applicable

³Maximum Pc board thickness is .062 [1.57], A = .386

⁴Has drawn metal shield

⁵Shielded with ground bracket 4-40 thread (low profile)

⁶For capacitive filtered version order **P/N 93960-X**. Refer to catalog 65696

⁷Plated Backshell

Shielded Right-Angle Connector Hardware Kit

Material and Finish:

Bracket—Zinc plated carbon steel

Pan Head Screw—Passivated stainless steel

Screw Lock—Zinc plated with yellow chromate over steel

Metric Screw Lock—Black oxide coated carbon steel

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.



Metric Screw Lock Hardware Kit
for IEEE-488 Application
Part No. 554808-1

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

Shielded Vertical Mount Connectors

Material and Finish:

Housing—Thermoplastic, black

Terminals—Gold over nickel plated high strength copper alloy on mating face and tin plated tails

EMI Shield—Nickel plated die casting

Ribbon and Flexible Flat Cable Products (Continued)



Screw Lock



Bail Lock

No. of Positions	Tine Length	Screw Lock		Bail Lock 4-40 Hole	Board Lock w/Bail Lock
		6-32 Hole	4-40 Hole		
24	.115	554501-1 ³	—	—	—
	2.92				
36	.100	—	—	555757-2 ⁴	—
	2.54				
	.215			554145-4	—
50	5.46			554216-3 ²	—
	.115				
	2.92			—	—
	.180				
	4.57				
	.215	—	554217-4 ¹	—	—
	5.46				

¹SCSI applicable with use of Bail Lock Hardware Kit Part No. 554818-2.

²SCSI applicable.

³Can be used with Interface Bus Applications per IEEE-488.

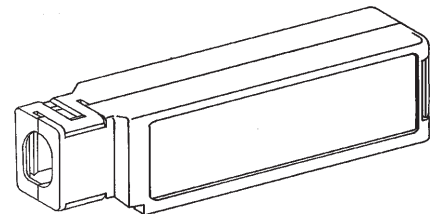
⁴Low-profile, stamped shield.

CHAMP System 5 90° Strain Relief

Material and Finish:

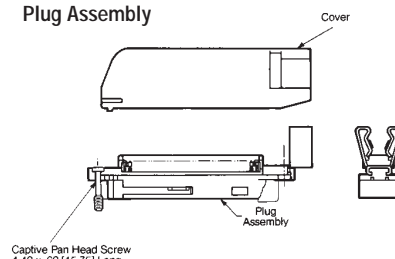
Housing—Thermoplastic, light almond

Cable Diameter Range	Part Numbers	
	Strain Relief	Cover
.650-.750 [16.51-19.05]	569939-1	—
.475-.540 [12.07-13.72]	—	552731-1

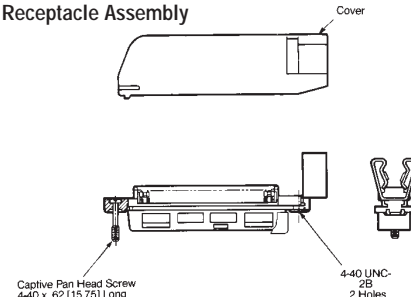


CHAMP System 5, 90° Strain Relief — For 50 Position

Plug Assembly



Receptacle Assembly



Wire Size				Housing Color Dot Description	Contact Letter Code	Housing Color	Part Numbers	
Solid		7 Strand					Plug	Receptacle
AWG	mm	AWG	mm ²					
24-26	0.51-0.40	24	0.20	Blue	B	Gray	553213-3	553212-3
24-26	0.51-0.40	24	0.20				—	554886-2 ¹

¹Integral Locking Latch.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

Back-to-Back Connector Assembly

Material and Finish:

Housing—Thermoplastic, black

Terminals—Gold over nickel plated high strength copper alloy on mating face and tin plated tails

Preassembled Screw Lock
50 Position, B-Slot Kit
Cable-to-Cable Application
Part No. 553257-1



24-Position Shielded CHAMP IEEE-488 Cable Assemblies

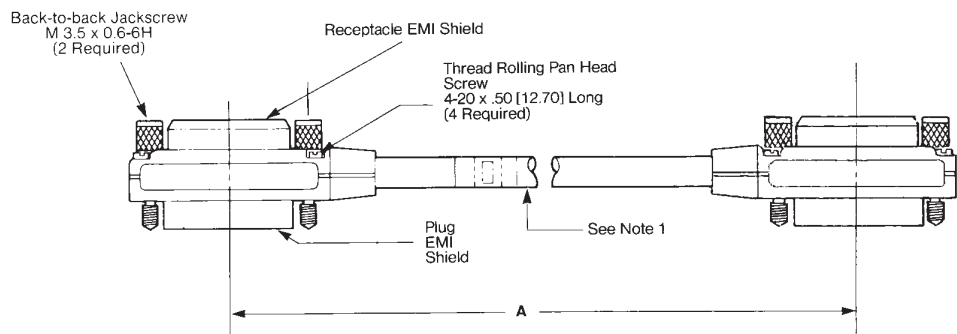
Material and Finish:

Housing—Thermoplastic, black

Terminals—Gold over nickel plated high strength copper alloy

Metric Jackscrew—Black oxide plated carbon steel

EMI Shield—Nickel plated non-ferrous die casting



Dimension A		Part Numbers
in.	m	
39.37	1.0	553577-2
78.74	2.0	553577-3
157.48	4.0	553577-5

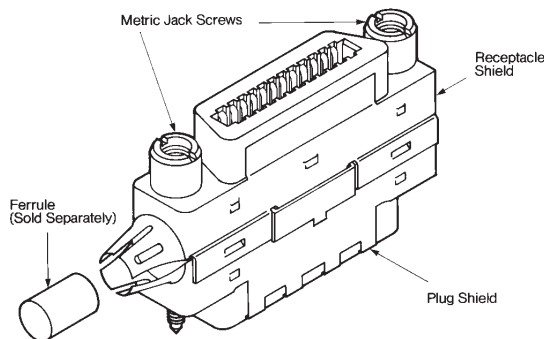
Shielded Back-to-Back Cable Connector Kit

Material and Finish:

Housing and Cover—Thermoplastic, black

Terminals—Gold over nickel plated high strength copper alloy

Jackscrew—Black oxide plated carbon steel



Inner Ferrules

Inside Diameter	Part Numbers
.300 7.62	554725-2
.350 8.89	554725-3
.400 10.16	554725-4

Cable Connectors

Connector Styles	Cable Diameter Range	Post Moldable	Kit Part Number
Back-to-Back	.300-.375 7.62-9.53	Yes	555182-1

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

Shielded Back-to-Back Cable Connector Kit — 24-Position Interface Bus Connector
Part No. 554815-1

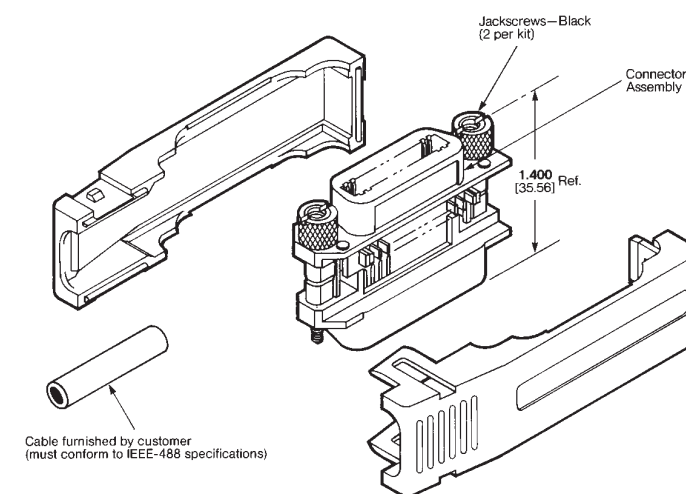
Snap-On Covers
Part No. 554831-1

Material and Finish:

Housing and Cover—Thermoplastic, black

Terminals—Gold over nickel plated high strength copper alloy

Jackscrew—Black oxide plated carbon steel



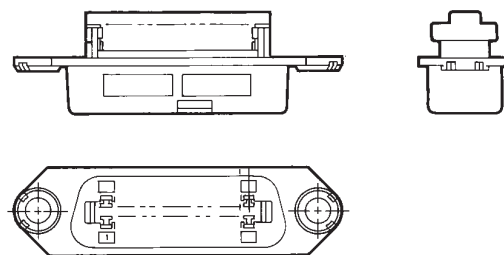
Interface Bus IDC Connector Panel Mount Applications — 24-Position Receptacle

Material and Finish:

Housing—Thermoplastic, black

Contacts—Selectively plated gold over nickel on high strength copper alloy

For Wire Size 24-26 AWG [0.51-0.40 mm] Solid and 24 AWG [0.20 mm²]
Part No. **2-552273-1**



Interface Bus IDC Connector Panel Mount Applications — Snap-On Strain Relief, 24 Position Low Profile

Part No. 1-552298-1

Material and Finish:

Thermoplastic, black



Interface Bus IDC Connector Panel Mount Applications — Panel Mount Metric Screw Lock Hardware Kits

Material and Finish:

Thermoplastic, black



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82008

CHAMP Miniature Ribbon Connectors

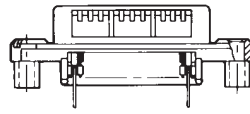
Interface Bus PC Board
Connector Applications —
Vertical Mount Receptacle

Part No. 552244-1

Material and Finish:

Housing and Cover—Thermoplastic, black

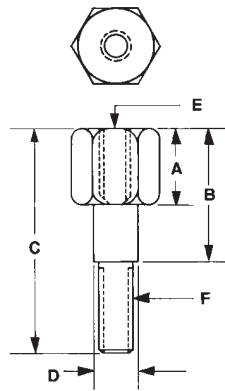
Contacts—Selectively plated gold over nickel on high strength copper alloy, tin plated tails



Ribbon and Flexible Flat Cable Products (Continued)

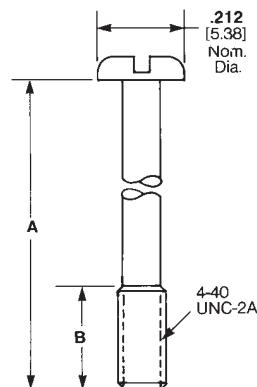
Miscellaneous Mounting Hardware

Standoff Mounting Studs



Dimensions						Part Number
A	B	C	D	E	F	
.239 6.07	.347 8.81	.640 16.26	.141 3.58	4-40	4-40	229995-2
.250 6.35	.605 15.37	1.000 25.40	.112 2.84	4-40	4-40	552113-1
.256 6.50	.339 8.61	.650 16.51	.165 4.19	M 3.5 x .6	4-40	552634-3

Captive Pan Head Screw



Dimensions		Part Number
A	B	
.750 19.05	.250 6.35	229911-1
.620 15.75	.250 6.35	229911-2
.425 10.80	.100 2.54	229996-2
.350 8.89	.100 2.54	229996-3

Flexible Film Products

**.050 [1.27] Centerline Flexible
Flat Connector Cable — .026
[0.66] Wide x .003 [0.08]
Thick Conductors**

Material and Finish

Conductors — Unplated copper per
QQ-C-502

Insulation — Flame retardant poly-
ester film

Electrical Ratings

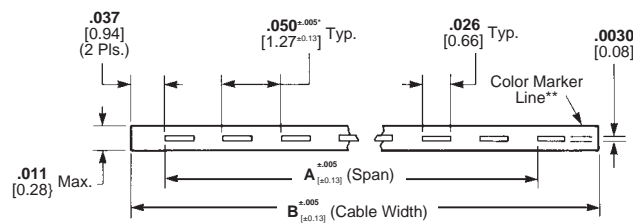
Voltage — 300 Volts AC

Impedance — 113 Ohms GND, SIG-
GND

Capacitance — 13.8 pF/ft max.

Resistance — 110 Ohms/1000 ft. max.

Ribbon and Flexible Flat Cable Products (Continued)



Cable Size (No. of Conductors)	Dimensions				Part No. ¹
	A		B		
	Inch	mm	Inch	mm	
6	.250	6.35	.350	8.89	2-499795-7
8	.350	8.89	.450	11.43	2-499795-8
10	.450	11.43	.550	13.97	499795-1
15	.700	17.78	.800	20.32	499795-6
20	.950	24.13	1.050	26.67	1-499795-1
25	1.200	30.48	1.300	33.02	1-499795-6
50	2.450	62.23	2.550	64.77	2-499795-4

¹Cable packaged 500 ft. [152.4 m] per reel.

.050 [1.27] Centerline Contact

Material and Finish

Phosphor bronze, plated gold duplex or
bright tin-lead overall



Receptacle Strip



Receptacle Strip

Type	Contacts		Application Tooling	
	Configuration	Duplex	Machine	With Programmer
Receptacle	Strip	¹ 487547-1	224910-4	318619-4
Solder Tab	Strip	² 487923-1		

¹Duplex plated .000030 [0.00076] gold on mating area, .000100 [0.00254] min. bright tin-lead in crimp area, with entire contact underplated .000050 [0.00127] min. nickel.

²Plated .000100 [0.00254] min. tin-lead over .000050 [0.00127] min. nickel.

For Complete Product Information, Order Catalog 82007

Flexible Film Products

.050 [1.27] Centerline Single Row Receptacle Housings**Material**

Housing — Thermoplastic, flame retardant, 94V-0, black

Ribbon and Flexible Flat Cable Products (Continued)

Plain Receptacle



Latch Style Receptacle

No. of Pos.	Part Numbers	
	Plain Receptacle Housing	Latch Style Receptacle Housing
4	—	487545-1
5	—	487545-2
6	—	487545-3
8	—	487545-5
10	—	487545-7
15	—	1-487545-2
20	—	1-487545-7
25	2-487544-2	2-487545-2
30	—	2-487545-7
40	—	3-487545-7
50	—	4-487545-7

.050 [1.27] Centerline Unshrouded, Single Row, Vertical, Thru-Hole Headers**Material and Finish**

Housing — Thermoplastic, flame retardant, 94V-0, black

Contacts — Copper alloy, plated .000030 [0.00076] gold on mating area, .000150 [0.00381] tin-lead on solder posts, all over .000050 [0.00127] nickel underplate

No. of Pos.	Part Number
4	104178-1
8	104178-5
25	1-104178-3

**.050 [1.27] Centerline Shrouded, Single Row, Right-Angle, Thru-Hole Headers****Material and Finish**

Housing — Thermoplastic, flame retardant, 94V-0, black

Contacts — Copper alloy, plated .000030 [0.00076] gold on mating area, .000150 [0.00381] tin-lead on solder posts, all over .000050 [0.00127] nickel underplate

No. of Positions	Part Number
4	104074-7
5	104074-2
8	1-104074-0
10	104074-1
12	1-104074-1
15	104074-3
20	104074-4
22	1-104074-4
25	104074-5
30	104074-6



For Complete Product Information, Order Catalog 82012

Flexible Film Products

**.050 [1.27] Centerline
Shrouded, Single Row,
Vertical, Thru-Hole Headers****Material and Finish**

Housing — Thermoplastic, flame retardant, 94V-0, black

Contacts — Copper alloy, plated .000030 [0.00076] gold on mating area, .000150 [0.00381] tin-lead on solder posts, all over .000050 [0.00127] nickel underplate

Ribbon and Flexible Flat Cable Products (Continued)

No. of Positions	Part Number	No. of Positions	Part Number
4	104071-7	17	1-104071-3
6	104071-8	20	104071-4
8	1-104071-0	25	104071-5
10	104071-1	30	104071-6
15	104071-3	36	1-104071-6

**.050 [1.27] Centerline
Shrouded, Double Row,
Receptacle Housings****Material and Finish**

Housing — Thermoplastic, flame retardant, 94V-0, black

No. of Positions	Latch Style Part Number
30	3-487937-0
40	4-487937-0
50	5-487937-0
60	6-487937-0
100	487937-1



Latch Style Housing

**.050 [1.27] Centerline
Unshrouded, Double Row,
Thru-Hole Headers****Material and Finish**

Housing — Thermoplastic, flame retardant, 94V-0, black

Contacts — Copper alloy, plated .000030 [0.00076] gold on mating area, .000150 [0.00381] tin-lead on solder posts, all over .000050 [0.00127] nickel underplate

No. of Pos.	Part Numbers	
	Right Angle Header	Vertical Header
30	—	103916-9
36	—	1-103916-8
40	1-104118-4	1-103916-1
60	—	1-103916-4
80	—	1-103916-6



Right-Angle Header



Vertical Header

**.050 [1.27] Centerline
Shrouded, Double Row,
Thru-Hole Headers****Material and Finish**

Housing — Thermoplastic, flame retardant, 94V-0, black

Contacts — Copper alloy, plated .000030 [0.00076] gold on mating area, .000150 [0.00381] tin-lead on solder posts, all over .000050 [0.00127] nickel underplate

No. of Pos.	Part Numbers	
	Right Angle Header	Vertical Header
16	—	1-104068-0
20	104069-1	104068-1
24	1-104069-2	1-104068-1
26	1-104069-3	—
30	104069-5	104068-3
40	104069-6	104068-4
50	104069-2	104068-5
60	104069-7	104068-6
68	1-104069-8	1-104068-8
72	—	1-104068-5
80	104069-3	1-104068-6
100	1-104069-7	1-104068-7

Right-Angle Header



Vertical Header



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82007

Flexible Film Products

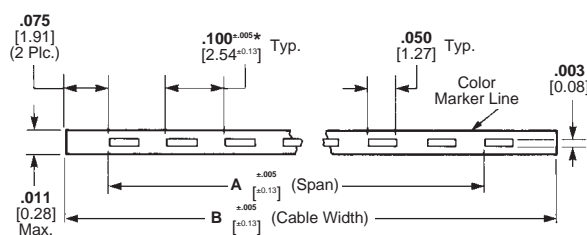
Ribbon and Flexible Flat Cable Products (Continued)

.100 [2.54] Centerline Flexible Flat Connector Cable — .050 [1.27] Wide x .003 [0.08] Thick Conductors

Material and Finish

Conductors — Unplated copper per QQ-C-502

Insulation — Flame retardant polyester film



Electrical Ratings

Voltage — 300 Volts AC

Impedance — 128 Ohms GND, SIG-GND nom.

Capacitance — 10.8 pF/ft max.

Resistance — 55 Ohms/1000 ft. max.

Cable Size (No. of Conductors)	Dimensions				Part No.
	A		B		
	Inch	mm	Inch	mm	
2	.100	2.54	.300	7.62	88586-1
4	.300	7.62	.500	12.7	88586-3
5	.400	10.16	.600	15.24	88586-4
6	.500	12.7	.700	17.78	88586-5
7	.600	15.24	.800	20.32	88586-6
8	.700	17.78	.900	22.86	88586-7
10	.900	22.86	1.100	27.94	88586-9
11	1.000	25.4	1.200	30.48	1-88586-0
12	1.100	27.94	1.300	33.02	1-88586-1
13	1.200	30.48	1.400	35.56	1-88586-2
14	1.300	33.02	1.500	38.1	1-88586-3
15	1.400	35.56	1.600	40.64	1-88586-4
16	1.500	38.1	1.700	43.18	1-88586-5
17	1.600	40.64	1.800	45.72	1-88586-6
18	1.700	43.18	1.900	48.26	1-88586-7
20	1.900	48.26	2.100	53.34	1-88586-9

Notes: 1. Cable is packaged 500 ft [152.4 m] per reel.

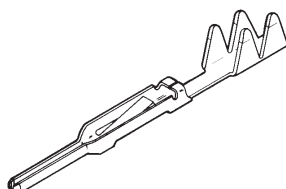
Flexible Film Contacts, Continuous Strip for Sequential Termination

Material and Finish

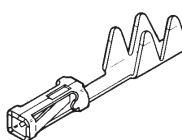
Phosphor bronze, plated gold duplex or bright tin-lead overall

Cable Thickness — .015 [0.38] max.

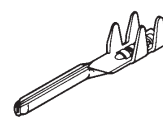
Conductor Width — .047 [1.19] min.



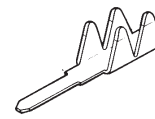
Pin Contact
(for use in housings)



Receptacle Contact
(accepts .025² Pins)



Pin Contact
(for use without housings)



Solder Tab

Contacts for Flexible Flat Conductor Cable						Application Tooling	
Type	Configuration	Part Numbers				Machine	With Programmer
		Duplex ¹	Duplex ²	Tin-Lead ³	Duplex ⁴		
Pin (for use in housings)	Strip	88117-3	88117-4	88117-5	—		
Receptacle (standard pressure)	Strip	487406-1	487406-2	487406-4	487406-3		
Receptacle (high pressure) ⁵	Strip	487117-4	487117-5	487117-8	—	224910-1	318619-1
Solder Tab ⁶	Strip	—	—	88997-2	—		
Pin (for use without housing)	Strip	—	—	88976-2	—		

¹Duplex plated .000015 [0.00038] gold on mating area, .000100 [0.00254] min. bright tin-lead in crimp area, with entire contact underplated .000050 [0.00127] min. nickel.

²Duplex plated .000030 [0.00076] gold on mating area, .000100 [0.00254] min. bright tin-lead in crimp area, with entire contact underplated .000050 [0.00127] min. nickel.

³Plated .000100 [0.00254] min. bright tin-lead over .000050 [0.00127] min. nickel on entire contact.

⁴Duplex plated .000050 [0.00127] gold on mating area, .000100 [0.00254] min. bright tin-lead in crimp area, with entire contact underplated .000050 [0.00127] min. nickel.

⁵High pressure receptacle contacts are recommended for a maximum connector size of 15 positions.

⁶Recommended hole size for solder tabs is .031-.035 [0.79-0.89] diameter.

Note: Round wire contacts—Page 270.

For Complete Product Information, Order Catalog 82007

Flexible Film Products

.100 [2.54] Centerline Single Row Slim-Line Receptacle Housings

Material

Housing — Thermoplastic, flame retardant, 94V-0, black

Ribbon and Flexible Flat Cable Products (Continued)

No. of Pos.	Receptacle Part Numbers		
	Plain	Latch	Detent
2	487378-1	487526-1	—
3	487378-2	487526-2	—
4	487378-3	487526-3	487769-2
5	487378-4	487526-4	487769-3
6	487378-5	487526-5	487769-4
7	487378-6	487526-6	—
8	487378-7	487526-7	487769-6
9	487378-8	487526-8	—
10	487378-9	487526-9	487769-8
11	1-487378-0	1-487526-0	—
12	1-487378-1	1-487526-1	1-487769-0
13	1-487378-2	—	—
14	1-487378-3	1-487526-3	1-487769-2
15	1-487378-4	—	—
16	1-487378-5	1-487526-5	1-487769-4
17	1-487378-6	1-487526-6	—
18	1-487378-7	1-487526-7	—
20	1-487378-9	—	—
22	2-487378-1	—	—



Plain Style Housing



Latch Style Housing



Housing with Detent

.100 [2.54] Centerline Single Row Polarized Housings without Mounting Ears

Material

Housing — Thermoplastic, flame retardant, 94V-0, black

No. of Pos.	Part Numbers	
	Pin Housings	Receptacle Housings
3	494032-2	88859-9
4	485893-2	1-88859-0
5	485893-3	—
6	485893-4	88859-1
7	485893-5	—
8	485893-6	88859-2
9	—	1-88859-3
10	485893-8	88859-3
11	—	1-88859-4
12	1-485893-0	88859-4
14	—	88859-7
20	—	88859-8



Polarized Pin Housing with Detent Window



Polarized Receptacle Housing with Detent

For Complete Product Information, Order Catalog 82007

Flexible Film Products

.100 [2.54] Centerline Double Row Polarized Housings with and without Mounting Ears**Material**

Housing — Thermoplastic, flame retardant, 94V-0, black



No. of Pos.	Pin Housing Part Numbers		Receptacle Housing Part Numbers	
	w/ Mtg. Ears	w/o Mtg. Ears	w/ Mtg. Ears	w/o Mtg. Ears
10	—	3-88189-0	—	3-88179-0
16	3-88190-4	—	88637-3	—
20	88190-8	—	—	88179-5
50	—	—	2-88637-7	—

.100 [2.54] Centerline Double Row Receptacle Housings with and Center Polarization**Material**

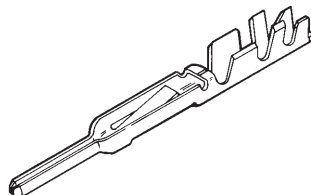
Housing — Thermoplastic, flame retardant, 94V-0, black

No. of Pos. ¹	Part No.
10	487223-1
14	487223-2
16	487223-3
20	487223-5
34	487223-9
40	1-487223-0
50	1-487223-2

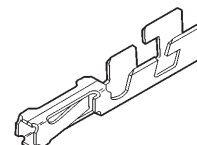
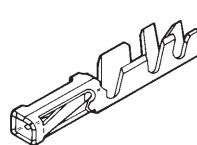
¹Tin plated contacts are not recommended for use in receptacles larger than 40 positions.

**.100 [2.54] Centerline Round Wire Contacts, Continuous Strip and Loose Piece****Material and Finish**

Phosphor bronze, selective gold plated or bright tin-lead overall



Pin Contact



Receptacle Contacts Contact
Accepts .025" Posts
(not for use in Slim-Line Receptacle Housings)

Contact Type	Wire Size Range		Ins. Dia. Range	Contact Finish	Strip Form Contact No.	Application Tooling Applicator Numbers for			Application Tooling Applicator Numbers for		
	AWG	mm ²				AMP-O-ELECTRIC ¹ Machine No. 565435-5	AMPOMATOR CLS II ² Machine No. 815800-1	AMP-O-MATIC ³ Machine No. 463345-1	Loose Piece Contact No.	Hand Tool No.	Instruction Sheet No. (IS)
Pin	32-26	0.03-0.15	.025-.048 0.64-1.22	Sel. Gold ¹	88048-4	466242-1	—	466933-1	—	—	—
	26-22	0.12-0.4	.040-.056 1.02-1.42	Sel. Gold ¹	86557-6	466572-2	466572-1	466909-1	86561-6	90222-6	7974
				Tin-Lead ³	1-86557-4	466572-2	466572-1	466909-1	86561-9	90222-6	
	24-22		.040-.056 1.02-1.42	Sel. Gold ¹	494033-2	567308-2	567308-1	—	494034-1	90378-1	7953
Receptacle	26-22	0.12-0.4	.040-.056 1.02-1.42	Sel. Gold ¹	86566-2	466572-2	466572-1	466909-1	86571-2	90222-6	7974
				Tin-Lead ³	86566-8	466572-2	466572-1	466909-1	86571-8	90222-6	
	24-22		.040-.056 1.02-1.42	Sel. Gold ¹	—	—	—	—	86657-2	90378-1	7953

*Side Feed Stripper/Crimper Machine Model II.

¹Selectively plated .000015 [0.00038] gold on mating area, gold flash on remainder of contact, with entire contact underplated .00050 [0.00127] min. nickel.

²Selectively plated .000030 [0.00076] gold on mating area, gold flash on remainder of contact, with entire contact underplated .00050 [0.00127] min. nickel.

³Plated .000100 [0.00254] min. bright tin-lead over .00050 [0.00127] min. nickel on entire contact.

*Crimp Control Monitor Part No. 567561-2.

*Crimp Control Monitor Part No. 567561-1.

Note: Use Extraction Tool No. 91092-1 for end locking lance slot and Extraction Tool No. 91093-1 for side locking lance slot.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82007

Flexible Film Products

AMP 1.0 [.039] FPC Connectors



Material

Housing — LCP

Solder Tabs — Phosphor bronze, tin-lead plating

Contact & Finish — Phosphor bronze, tin-lead plating

Spider — Thermoplastic, 94V-0, black

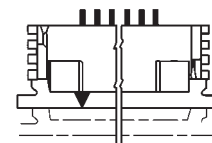
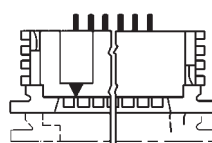
Ribbon and Flexible Flat Cable Products (Continued)



Vertical Surface Mount



Top Contact Mount



Bottom Contact Mount

No. of Pos.	Part Numbers		
	Vertical Surface Mount	Top Contact Mount	Bottom Contact Mount
4	—	—	487952-4
8	—	—	487952-8
12	—	1-487951-2	—
14	—	1-487951-4	—
16	—	1-487951-6	—
20	2-487953-0	2-487951-0	—
22	—	2-487951-2	—
30	—	3-487951-0	3-487952-0

For Complete Product Information, Order Catalog 82007

Engineering Notes



Integrated Circuit (IC) Products

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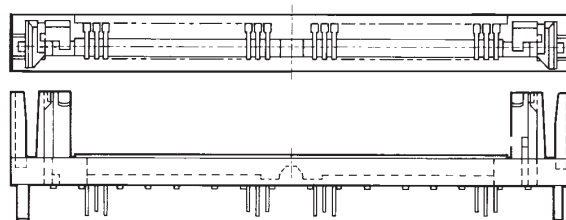
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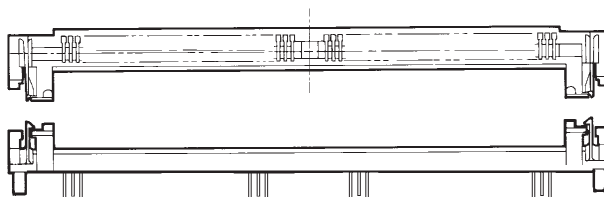
MICRO-EDGE SIMM Sockets with Plastic Latches**Material and Finish for All MICRO-EDGE SIMM Sockets with Plastic Latches**

Housing — Liquid Crystal Polymer (LCP) UL 94V-0
Contacts — Phosphor bronze with .000200 [0.00508] min. thick tin-lead over .000050 [0.00127] min. thick nickel or .000030 [0.00076] min. thick gold on contact area and .000150 [0.0038] min. thick tin-lead on solder tails, all over .000050 [0.00127] min. thick nickel

**.050 [1.27] Centerlines Vertical Single Row**

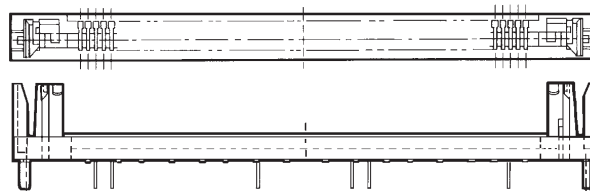
64-Position —
 Part Number 821824-6
 Tin-Plated

72-Position —
 Part Number 821824-8
 Tin-Plated

.050 [1.27] Centerlines Low Profile (25°) Single Row (Standard Footprint)

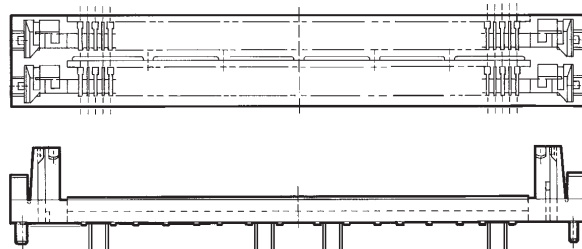
72-Position —
 Part Number 821947-7
 Tin-Plated

72-Position —
 Part Number 821950-7
 Gold-Plated

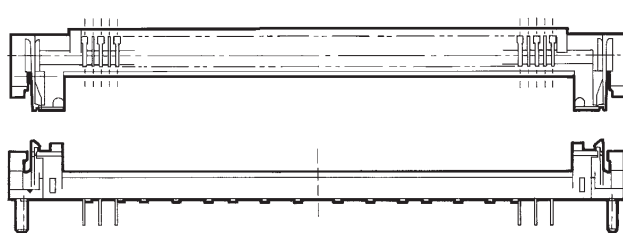
.100 [2.54] Centerlines Vertical Single Row

30-Position —
 Part Number 821828-2
 Tin-Plated

42-Position —
 Part Number 821828-5
 Tin-Plated

.100 [2.54] Centerlines Vertical Dual Row (.100 x .300 [2.54 x 7.62] Spacing)

30-Position —
 Part Number 821885-2
 Tin-Plated

.100 [2.54] Centerlines Low Profile (25°) Single Row

30-Position —
 Part Number 821876-2
 Tin-Plated

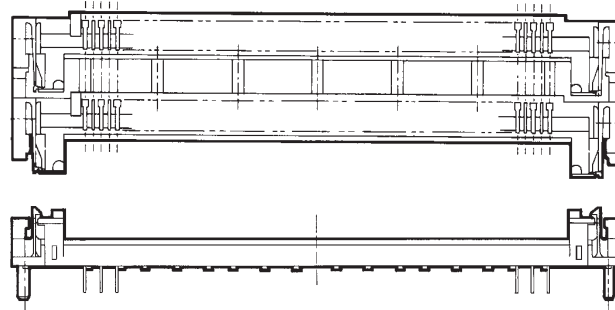
30-Position —
 Part Number 821877-2
 Gold-Plated

For Complete Product Information, Order Catalog 82172

MICRO-EDGE SIMM Sockets with Plastic Latches

.100 [2.54] Centerlines
Low Profile
Dual Row

Integrated Circuit (IC) Products (Continued)

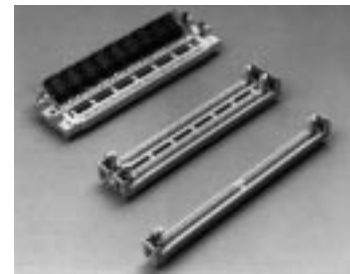


30-Position —
Part Number 821832-2
Tin-Plated

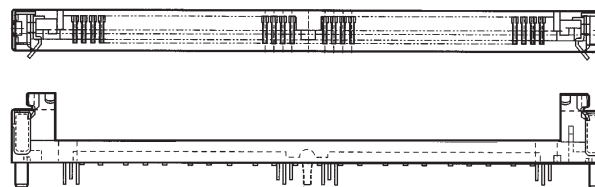
MICRO-EDGE SIMM Sockets with Metal Latches

Material and Finish
for All MICRO-EDGE
SIMM Sockets with
Metal Latches

Housing — Liquid Crystal Polymer (LCP) UL 94V-0
Contacts — Phosphor bronze, plated: .000200 [0.00508] min. tin-lead or .000030 [0.00076] min. gold on the contact area, .000150 [0.0038] min. tin-lead on the solder tails, all over .000050 [0.00127] min. nickel underplating
Metal Latches — Stainless Steel

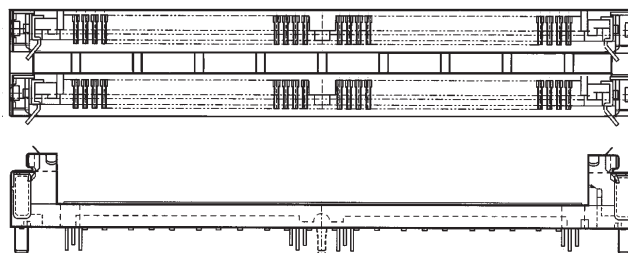


.050 [1.27] Centerlines
Vertical Single Row
(Right Polarization with
Fluted Center Post, Left
Polarization with Center
Post)



Description	No. of Pos.	Tin Plate		Gold Plate	
		With Fluted Center Post	Without Center Post	With Fluted Center Post	Without Center Post
Right Polarization	64	822021-2	—	822032-2	822031-2
	72	822021-4	822019-4	822032-4	822031-4
	80	822021-5	—	822032-5	—
Left Polarization	72	822030-3	—	821997-3	—
	80	822030-4	—	821997-4	—

.050 [1.27] Centerlines
Vertical Dual Row
(.050 x .400 [1.27 x 10.16]
Spacing)



72-Position —
Part Number 822090-4
Tin-Plated, with Center Post

72-Position —
Part Number 822023-4
Tin-Plated, without Center Post

72-Position —
Part Number 822033-4
Gold-Plated, without Center Post

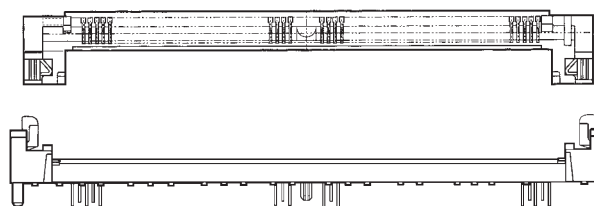
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

MICRO-EDGE SIMM Sockets with Metal Latches

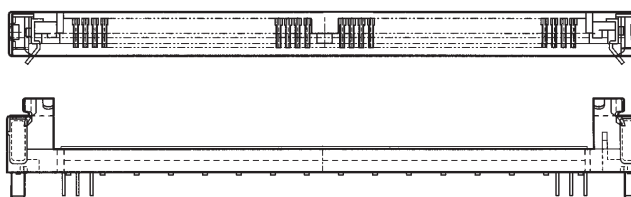
.050 [1.27] Centerlines
Low Profile (22°)
Single Row with Optional
Retention Post,
Single Row with Split
Retention Posts

Integrated Circuit (IC) Products (Continued)



Description	No. of Pos.	Tin Plate		Gold Plate	
		With Center Post	Without Center Post	With Center Post	Without Center Post
Optional Retention Post	72	822134-3	—	822137-3	822138-3
	80	822134-4	—	822137-4	—
Split Retention Post	64	822110-1	—	—	—
	72	822110-3	—	822097-3	—

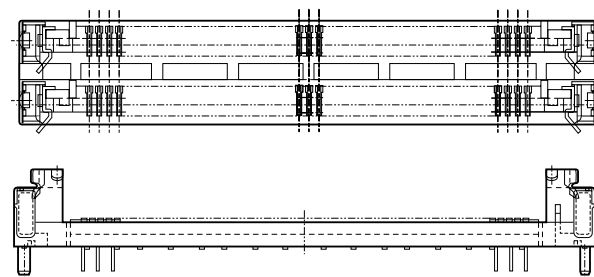
.100 [2.54] Centerlines
Vertical Single Row



30-Position —
Part Number 822056-2
Tin-Plated

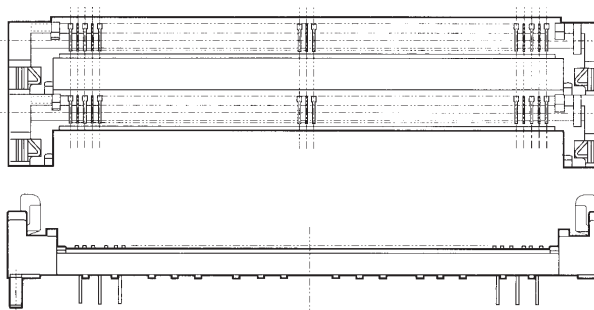
30-Position —
Part Number 822061-2
Gold-Plated

.100 [2.54] Centerlines
Vertical Dual Row
(.100 x .300 [2.54 x 7.62]
Spacing)



30-Position —
Part Number 822058-2
Tin-Plated

.100 [2.54] Centerlines
Low Profile (22°)
Dual Row
(.100 x .500 [2.54 x 12.70]
Spacing)



30-Position —
Part Number 822113-2
Tin-Plated

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

SIMM II Vertical Cam-In Sockets

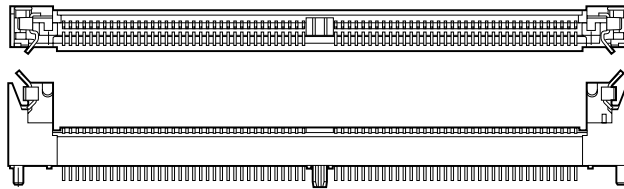
Single Row Right Polarization, Left Polarization

Material and Finish

Housing — Liquid Crystal Polymer (LCP) UL 94V-0

Contacts — Phosphor bronze with .000150 [.00381] minimum thick tin on mating edge over .000050 [0.00127] minimum thick nickel on entire contact. See table below.

Integrated Circuit (IC) Products (Continued)



Left Polarization

72-Position —

Part Number 7-382698-2

Tin-Plated, Solder Tail Length
.095 [2.41]

Right Polarization

72-Position —

Part Number 7-382696-2

Tin-Plated, Solder Tail Length
.095 [2.41]

72-Position —

Part Number 7-382700-2

Gold-Plated, Solder Tail Length
.120 [3.05]

SIMM II Right-Angle Sockets

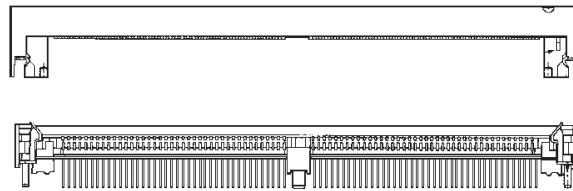
.050 [1.27] Centerlines

Material and Finish

Housing — Liquid Crystal Polymer (LCP), glass-filled UL 94V-0 rated

Contacts — Phosphor Bronze, plated: .000150 [0.0038] min. tin-lead or .000030 [0.00076] min. gold on the contact area, .000150 [0.0038] min. tin-lead on the solder tails, all over .000050 [0.00127] min. nickel under-plating

Metal Latches — Brass, nickel-plated

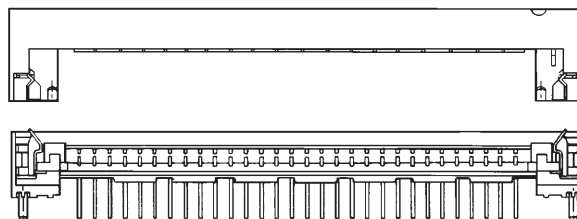


No. of Pos.	.125 [3.18] Height ¹		.160 [4.06] Height ²		.250 [6.35] Height ²	
	Tin Plate	Gold Plate	Tin Plate	Gold Plate	Tin Plate	Gold Plate
40	—	—	—	—	4-382486-0	4-382487-0
68	—	—	—	—	6-382486-8	6-382487-8
72	—	—	7-382482-2	7-382483-2	—	7-382487-2
80	—	—	—	—	8-382486-0	—
84	—	8-382481-4	—	—	—	—

¹Has plastic latches (plastic latches extend .707 [17.96] from back of housing).

²Has metal latches.

.100 [2.54] Centerlines



30-Position —
Part Number 3-382488-0
Tin-Plated

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

DIMM I Dual Read-Out Sockets

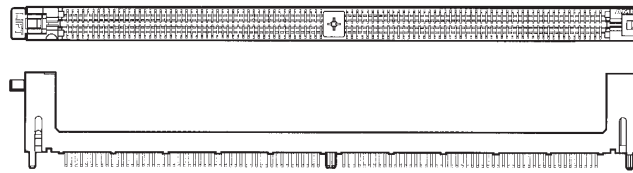
.050 [1.27] Centerlines
Single Row

Material and Finish

Housing — Liquid Crystal Polymer (LCP), UL 94V-0

Contacts — Phosphor bronze with gold plating in contact area and tin-lead on solder tail

Integrated Circuit (IC) Products (Continued)

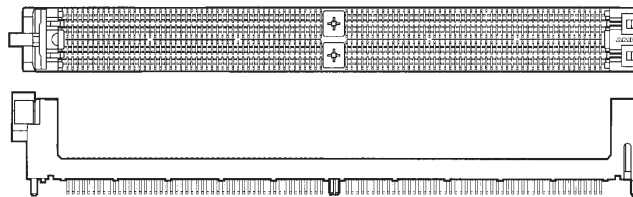


72-Position —
Part Number 7-382617-2
No Center Key, Extractor Left



100-Position —
Part Number 382759-1
.062 [1.57] Center Key, Extractor Left

.050 [1.27] Centerlines
Dual Row



100-Position¹ —
Part Number 382580-1

¹Number of positions per row.

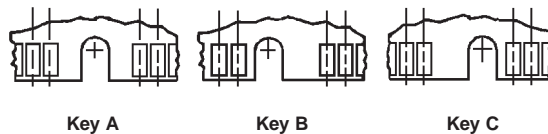
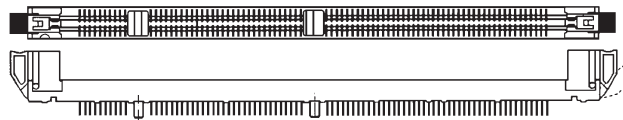
DIMM I 8 Byte Dual In-Line Memory Module Sockets

Sockets with Standard Extractors

Material and Finish

Housing — Liquid crystal polymer (LCP) UL 94V-0

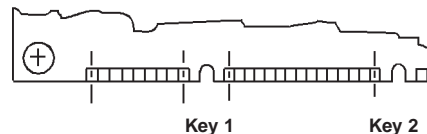
Contact — Phosphor bronze with .000030 [0.00076] min. thick gold over .000050 [0.00127] min. thick nickel in contact area and .000150 [0.0038] min. thick tin-lead over .000050 [0.00127] min. thick nickel on solder tail



Key A

Key B

Key C



Key 1

Key 2

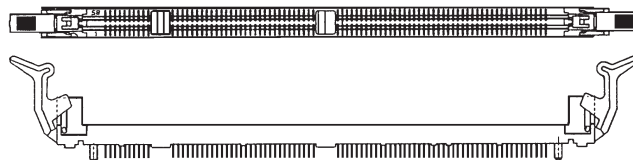


Standard DRAM, 5 Volt
Key 1 = A, Key 2 = B:
Part Number 382830-1
(Extraction Lever Both Ends)

Part Number 382826-1
(Extraction Lever Right End Only)

Non-Standard DRAM, 3.3 Volt
Key 1 = C, Key 2 = A:
Part Number 382830-6
(Extraction Lever Both Ends)

Sockets with Module-Locking Extractors



Standard DRAM, 3.3 Volt
Key 1 = A, Key 2 = A:
Part Number 382824-4

For Complete Product Information, Order Catalog 82172

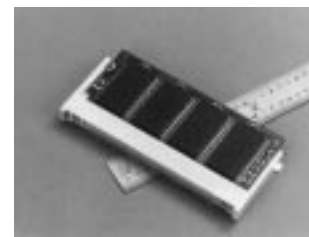
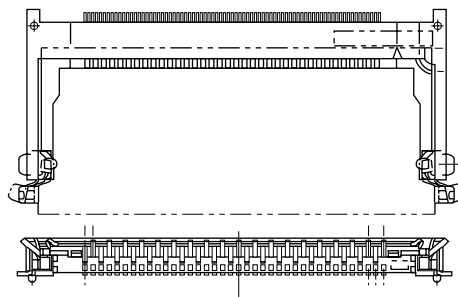
DIMM Mini Memory Module (M3) Sockets

Material and Finish

Housing — Liquid crystal polymer (LCP), 94V-0

Contact — Phosphor bronze

Plating — Gold and tin platings are available in contact area with tin lead plating on surface mount tail



72-Position —
Part Number 177827-1
3.3 Volt, Gold-Plated

72-Position —
Part Number 177827-3
5.0 Volt, Gold-Plated

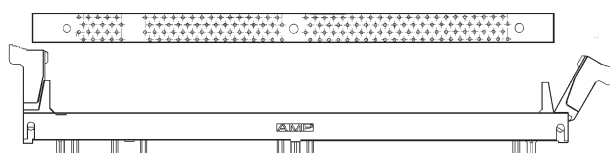
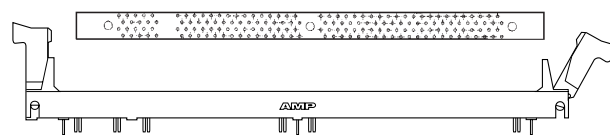
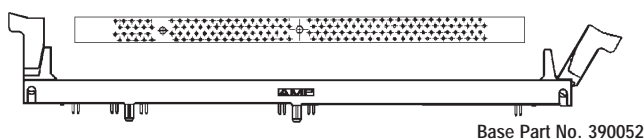
DIMM II Dual Read-Out, 8 Byte Memory Module Sockets

168 Position JEDEC MO-161

Material and Finish

Housing — High temperature thermoplastic, natural

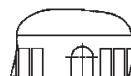
Contacts — Phosphor bronze, plated: Gold flash over .000015 [0.00038] min. palladium-nickel over .000050 [0.00127] min. nickel in contact area, .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel in solder tail area



Part Numbers		
Std. DRAM		Non-Std. (Non-Buff.) DRAM
5 Volt	3.3 Volt	3.3 Volt
Key 1 = A Key 2 = B	Key 1 = A Key 2 = A	Key 1 = C Key 2 = A
—	—	390055-6
—	—	390064-6
390052-1	—	390052-6
—	390040-4	390040-6
—	390074-4	390074-6
—	—	390104-6



Key
A



Key
C



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

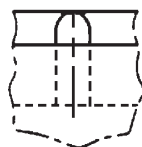
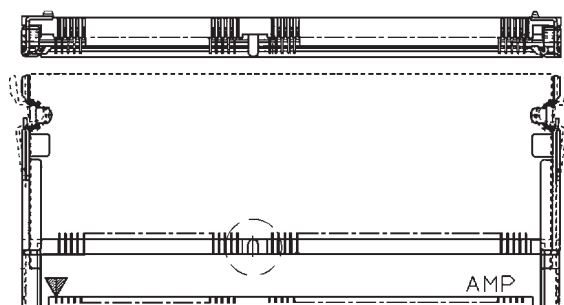
For Complete Product Information, Order Catalog 82172

SO DIMM Dual Read-Out
Memory Module Sockets144-Position 0.8mm for
SDRAM Modules

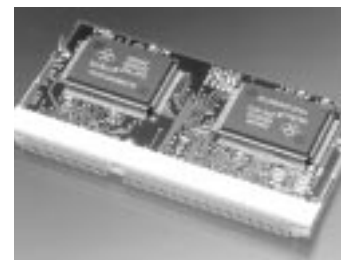
Material and Finish

Housing — Nylon, UL94V-0 rated;
color: natural

Contact — Phosphor bronze with
0.00025 mm [.0000098 in.] min. thick
gold over 0.001 mm [.0000393 in.] min.
thick nickel in contact area and gold
flash over 0.001 mm [.0000393 in.]
min. thick nickel in soldering area.



Key Type A



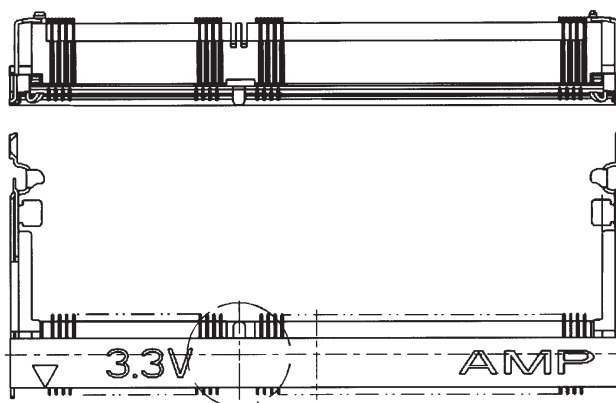
Housing Style	Power Supply: 3.3 Volt Key Type A
Standard	390113-1
Low Profile	390114-1
High-Profile	390112-1

144-Position 0.8mm for
SGRAM Modules

Material and Finish

Housing — Nylon, UL94V-0 rated;
color: natural

Contact — Phosphor bronze with
0.00025 mm [.0000098 in.] min. thick
gold over 0.0013-0.004 mm [.000051-
.000157 in.] thick nickel in contact area
and 0.0033-0.0064 mm [.000150-
.000250 in.] thick tin-lead over 0.0013-
0.004 mm [.000051-.000157 in.] thick
nickel in soldering area.



Part Numbers [390110-1](#)
[390111-1](#)

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

PLCC Sockets

PLCC Sockets — (HPT) with Solder Tails

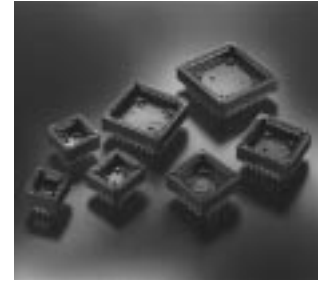
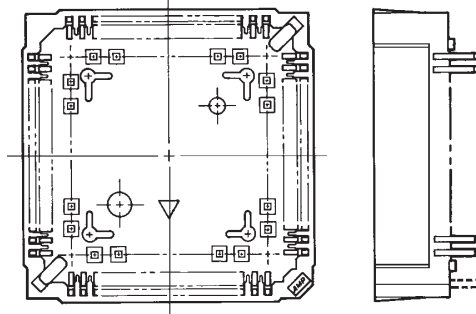
Material and Finish

Housing Material — PPS or PCT,
UL 94V-0 rated

Contacts — Phosphor bronze

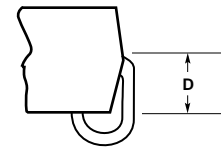
Plating — .000150 [0.00381] min.
tin-lead (93-7) over .000040 [0.00102]
min. nickel

Integrated Circuit (IC) Products (Continued)



No. of Pos.	Package Configuration	PLCC Dim. D			With Plastic ¹ Polarizing Pin
		.055-.075 ¹ [1.40-1.91]	.055-.075 ² [1.40-1.91]	.070-.090 ¹ [1.78-2.29]	
20	Square	821815-1	—	—	—
28	Square	821581-1	3-821581-1	821581-3	—
32	Rectangular	821665-1	3-821665-1	—	822147-1
44	Square	821575-1	3-821575-1	821575-3	—
52	Square	821551-1	—	821739-3	—
68	Square	821574-1	3-821574-1	821574-3	822149-1
84	Square	821573-1	3-821573-1	821573-3	—

¹Packaged in trays. ²Packaged in tubes.

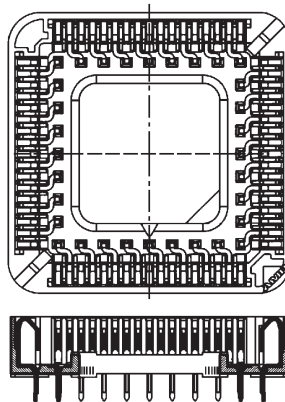


PLCC Sockets — Low Profile with Solder Tails

Material and Finish

Housing — High temperature PCT
polyester

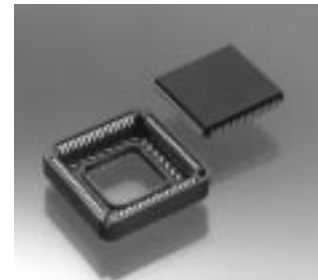
Contact — Phosphor bronze with
.000100 [0.00254] min. thick precoated
tin finish



52-Position —
Part Number [822437-4](#)

68-Position —
Part Number [822437-5](#)

84-Position —
Part Number [822437-6](#)



PLCC Sockets — Low Profile, Surface Mount Square Socket and Rectangular Socket

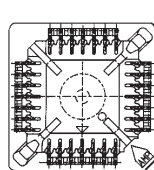
Material and Finish

Housing — Polyphenylene sulfide,
40% glass-filled, 94V-0 rated 220°C

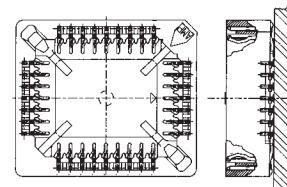
Contact — Phosphor bronze, plated
.000200 [0.00508] min. tin-lead per
MIL-T-10727 Type I over .000050
[0.00127] min. nickel per QQ-N-290

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

**For Complete Product
Information, Order Catalog 82172**



Square Socket



Rectangular Socket

No. of Pos.	Low Insertion Force			Ultra Low Profile Socket Without Locating Posts
	Without Locating Posts	With Locating Posts	Tape Mounted Without Locating Posts	
20	822269-1	822270-1	3-822269-1	—
28	822271-1	822272-1	3-822271-1	—
32	822273-1¹	822274-1¹	3-822273-1¹	822403-1 ¹
44	822275-1	822276-1	3-822275-1	—
52	822277-1	822278-1	3-822277-1	—
68	822279-1	822280-1	3-822279-1	—
84	822281-1	822282-1	3-822281-1	—

¹Rectangular Socket Part Numbers

PLCC Sockets and PQFP Sockets

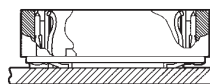
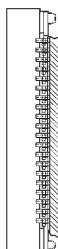
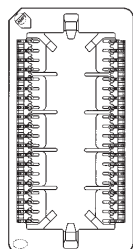
PLCC Sockets — Low Profile, SOJ-Style Surface Mount Sockets

40-Position,
.400 [10.16] Centerlines

Material and Finish

Housing — Polyphenylene sulfide, 94V-0 rated

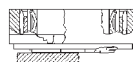
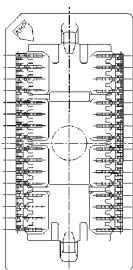
Contacts — Phosphor bronze, plated .000200 [0.00508] min. 93/7 tin-lead over .000050 [0.00127] min. nickel underplating



Part Number **822265-2**
Without Locating Pins,
Tube Packaged

Part Number **3-822265-2**
Without Locating Pins,
Tape Mounted

32-Position,
.300 [7.62] Centerlines



Part Number **3-822374-1**
Without Locating Pins,
Tape Mounted

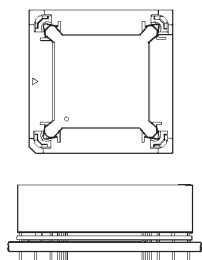
PQFP Sockets, MICRO-PITCH — Standard

Material and Finish

Housing — High temperature thermo-plastic, 94V-0 rated, black

Cover — Polyphenylene sulfide (PPS), 94V-0 rated, black

Contacts — Phosphor bronze, plated .000200 [0.00508] min. tin over .000050 [0.00127] min. nickel underplating



100-Position — Conventional
Housing, Part No. 821949-4
Cover, Part No. 821939-1

132-Position — Conventional
Housing, Part No. 821949-5
Cover, Part No. 821942-1



Typical PQFP Socket Application

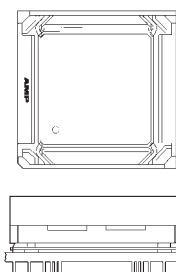
PQFP Sockets, MICRO-PITCH—Metric for JEDEC Metric Quad Flat Pack ICs

Material and Finish

Housing — High temperature thermo-plastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated 0.00508 [0.00200] min. tin-lead over 0.00127 [0.00050] min. nickel underplating

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.



144-Position —
Housing, Part No. 822114-3
Cover, Part No. 822115-3

160-Position —
Housing, Part No. 822114-4
Cover, Part No. 822115-4

For Complete Product Information, Order Catalog 82172

PGA Sockets

Integrated Circuit (IC) Products (Continued)

Socket Patterns

Material and Finish

Single Actuated ZIF (SLZ) and Screwdriver Actuated ZIF (SAZ):

Housing — High temperature thermoplastic

Contacts — Copper alloy plated .000030 [0.00076] min. gold over .000050 [0.00127] min. nickel in contact area; .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel in solder area

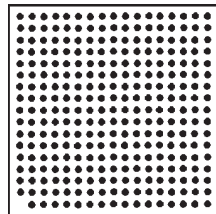
Actuator (SLZ) — Zinc alloy

Handle Actuated ZIF (HAZ):

Housing and Cover — LCP

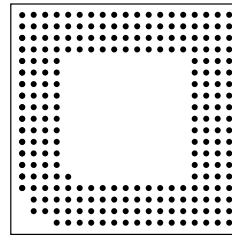
Contacts — Beryllium copper plated .000030 [0.00076] min. gold over .000075 [0.00191] min. nickel in contact area; .000150 [0.00381] min. tin-lead over .000050 [0.00127] min. nickel in solder area

Pattern A



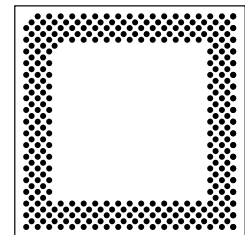
17 x 17
288 Positions
Power PC™

Pattern B



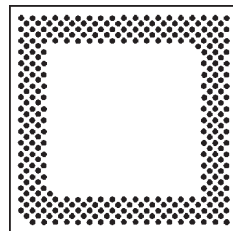
19 x 19
237 Positions
Molded Socket 3

Pattern C



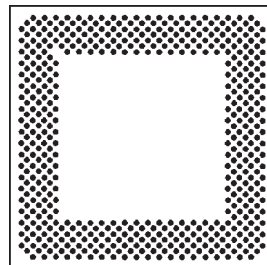
19 x 19
320 Positions
Pentium™
Molded Socket 5

Pattern D



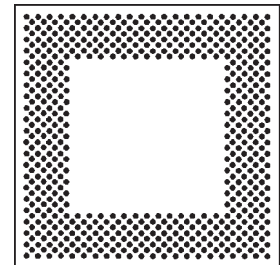
19 x 19
321 Positions
Pentium™
Molded Socket 7

Pattern E



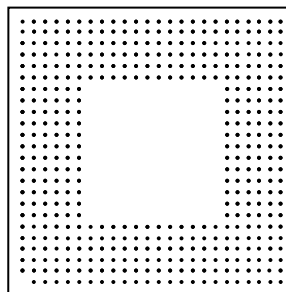
22 x 22
499 Positions
Molded Socket
499 (DEC)

Pattern F



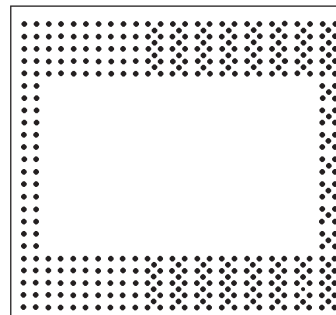
22 x 22
560 Positions

Pattern G



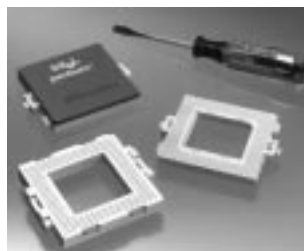
24 x 24
431 Positions
Digital 21064

Pattern H



26 x 24
387 Positions
Pentium™ Pro
Molded Socket 8

Screwdriver Actuated ZIF (SAZ) Sockets

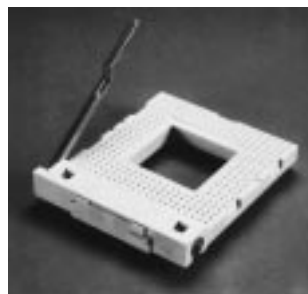


Pattern Style	Solder Tail Length	Part No.
C	.080 2.03	916707-1 ^{1,2}
	.090 2.29	916707-2 ^{1,2}
	.080 2.03	916727-1 ¹
	.110 2.79	916635-1
D	.090 2.29	916732-2 ^{1,3}

¹ Low profile ² Rotate pattern 90° clockwise ³ Heat sink compatible

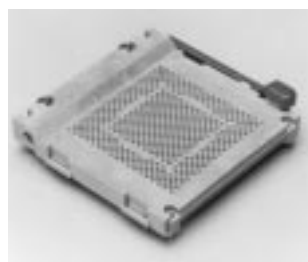
For Complete Product Information, Order Catalog 82172

PGA Sockets

Single Lever ZIF (SLZ)
Sockets, Open Center, Heat
Sink Compatible

Integrated Circuit (IC) Products (Continued)

Pattern Style	Solder Tail Length	Part Number	Pattern Style	Solder Tail Length	Part Number
A	.110 2.79	916668-1 ³	D	.110 2.79	916658-3 ^{2,6}
	.113 2.87	916668-4 ¹		.090 2.29	916715-2 ^{2,6,7}
B	.110 2.79	916541-1		.080 2.03	916716-1 ^{6,7}
C	.110 2.79	916560-1		.090 2.29	916716-2 ^{6,7}
D	.110 2.79	916637-1		.110 2.79	916716-3 ^{6,7}
	.080 2.03	916756-1 ^{2,5,6}		.080 2.03	916774-1 ^{2,6,7}
	.090 2.29	916756-2 ^{2,5,6}	E	.110 2.79	916583-1
	.110 2.79	916756-3 ^{2,5,6}	G	.110 2.79	916603-1
	.080 2.03	916657-1 ⁶	H	.090 2.29	916680-2 ⁴
	.090 2.29	916657-2 ⁶		.110 2.79	916680-3
	.110 2.79	916657-3 ⁶		.080 2.03	916738-1
	.080 2.03	916658-1 ^{2,6}		.090 2.29	916738-2
	.090 2.29	916658-2 ²		.110 2.79	916738-3

¹ .050 [1.27] tall standoffs² .000015 [0.00038] thick gold over nickel on contacts³ Full grid, not open center⁴ .000015 [0.00038] thick gold over nickel on solder tails⁵ Heat sink stops⁶ Low Profile⁷ Short handleHandle Actuated ZIF (HAZ)
Socket

Pattern Style	Solder Tail Length	Part Number
F	.170 4.32	382676-4

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

DIP Sockets

Integrated Circuit (IC) Products (Continued)

DIP Sockets — DL Standard

Material and Finish

Housing — Glass-filled thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze or beryllium copper with tin or gold plating



No. of Pos.	Sockets with Straight Solder Tails ¹				Sockets with Retention Solder Tails ¹			
	Beryllium Copper		Phosphor Bronze		Beryllium Copper		Phosphor Bronze	
	Tinned	.000030 [0.00076] Gold Plate	Tinned	.000015 [0.00038] Gold Plate	Tinned	.000030 [0.00076] Gold Plate	Tinned	.000015 [0.00038] Gold Plate
6 ²	2-641296-1	2-641296-2	2-641296-3	2-641296-4	2-641259-1	—	2-641259-3	—
8 ²	2-640463-1	2-640463-2	2-640463-3	2-640463-4	2-641260-1	—	2-641260-3	2-641260-4
14	2-641599-1	2-641599-2	2-641599-3	2-641599-4	2-641609-1	—	2-641609-3	2-641609-4
16	2-641600-1	2-641600-2	2-641600-3	2-641600-4	2-641610-1	—	2-641610-3	2-641610-4
18	2-641601-1	—	2-641601-3	—	—	—	2-641611-3	—
20	2-641602-1	2-641602-2	2-641602-3	2-641602-4	2-641612-1	2-641612-2	2-641612-3	—
22	—	—	2-641603-3	—	—	—	—	—
24	2-641932-1	2-641932-2	2-641932-3	2-641932-4	2-641933-1	—	2-641933-3	—
24	2-641604-1	2-641604-2	2-641604-3	2-641604-4	—	—	2-641614-3	—
28	2-382571-1	—	2-382571-3	—	—	—	—	—
28	2-641605-1	2-641605-2	2-641605-3	2-641605-4	2-641615-1	2-641615-2	2-641615-3	2-641615-4
40	2-641606-1	2-641606-2	2-641606-3	2-641606-4	2-641616-1	2-641616-2	2-641616-3	—
42	—	—	2-382374-3	—	—	—	—	—
48	2-643574-1	—	2-643574-3	—	—	—	—	—
64	643575-1	—	643575-3	—	—	—	—	—

¹ ONLY sockets with straight solder tails are recommended for automatic insertion. All parts are packaged in plastic tubes. Sockets with retention feature are packaged in plastic tubes for handling and storage convenience only.

² Closed frame design.

DIP Sockets — DL Standard, Over-the- Component (OTC) Style

Material and Finish

Housing — Glass-filled thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze or beryllium copper with tin or gold plating



No. of Pos.	Sockets with Straight Solder Tails				Sockets with Retention Solder Tails		
	Beryllium Copper		Phosphor Bronze		Beryllium Copper		Phosphor Bronze
	Tinned	.000030 [0.00076] ¹ Gold Plate	Tinned	.000015 [0.00038] ¹ Gold Plate	Tinned	.000030 [0.00076] ¹ Gold Plate	Tinned
28	—	—	2-382415-3	—	—	—	—
32	2-644018-1	2-644018-2	2-644018-3	2-644018-4	2-382189-1	2-382189-2	2-382189-3
40	—	—	2-382153-3	—	—	—	—

¹ Gold thickness in contact area with tin-lead plate on solder tails. All parts packaged in plastic tubes.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

SIP Sockets and Miniature Spring Sockets

DIP Sockets — DL Surface Mount and Surface Mount Compatible

Material and Finish

Housing — PCT Glass reinforced, 94V-0 rated, brown (14-position part numbers (X-382463-X) are glass filled polyester, 94V-0 rated, black)

Contacts — Phosphor bronze or beryllium copper with tin or gold plating



Integrated Circuit (IC) Products (Continued)

No. of Pos.	Phosphor Bronze		Through-Hole ^{1,2}	Beryllium Copper Surface Mount ¹
	Surface Mount ¹	Gold Plate ³	Tinned	Tinned
8	2-382401-3 8-382401-3 ⁴	—	—	—
14	2-382402-3	2-382402-4	—	—
16	2-382403-3	—	—	—
18	2-382404-3	—	—	—
20	—	2-382405-4	2-382465-3	—
24	2-382408-3	—	—	—
28	—	—	—	2-382636-1
28	2-382409-3	2-382409-4	2-382467-3	2-382409-1
32	2-382424-3	—	2-382470-3	—
40	2-382411-3	—	—	—

¹ All parts packaged in plastic tubes.

² Through-hole sockets are compatible with surface mount soldering practices except where noted.

³ Two .000015 [0.00038] min. thick gold stripes in contact area with tin-lead (93/7) on solder tails and nickel on balance of contact.

⁴ Tape and reel packaged.

SIP Sockets — Solder Tail Dual Leaf (DL)

Material and Finish

Housing — Glass-filled thermoplastic, 94V-0 rated, black

Contacts — Beryllium copper with tin plating



No. of Pos.	Straight Solder Tail		Retention Solder Tail	
	Beryllium Copper	Phosphor Bronze	Beryllium Copper	Phosphor Bronze
	Tinned	Tinned	Tinned	Tinned
3	—	382437-3	—	—
4	382438-1	—	—	—
5	382439-1	—	—	—
6	382440-1	—	—	—
7	382441-1	—	—	—
8	643640-1	643640-3	—	—
9	—	643641-3	643641-6	—
10	643642-1	643642-3	—	643642-8
12	643644-1	643644-3	643644-6	—
14	643646-1	643646-3	643646-6	643646-8
15	643647-1	—	643647-6	—
16	643648-1	643648-3	—	—
18	643650-1	—	643650-6	—
19	—	—	—	—
20	643652-1	643652-3	643652-6	—
24	—	643656-3	—	—
25	643657-1	—	—	—

Miniature Spring Sockets —

Material

Spring — Beryllium copper

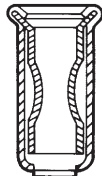
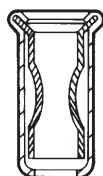
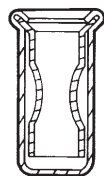
Contact Sleeve — Copper

Flat Bottom Sockets

Closed Bottom

Open Bottom

Knockout Bottom

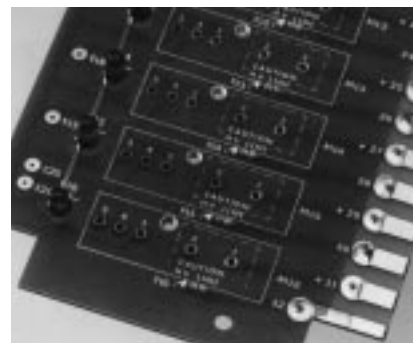
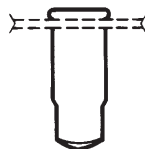


Bullet Nose Sockets (Loose Piece and Tape Mounted)

Material

Spring — Beryllium copper

Contact Sleeve — Copper



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82172

Miniature Spring Sockets — (Continued)

Series 1 Sockets — For .012–.021
[0.30–0.53] Round and .009–.015
[0.23–0.38] Square Leads³

Integrated Circuit (IC) Products (Continued)

Flat Bottom — Recommended Hole Size: $.041^{+.003}_{-.000}$ [$1.04^{+0.08}_{-0.00}$] for Semiautomatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	
	Spring	Sleeve	Closed Bottom	Knockout Bottom
.013–.020 0.33–0.51	Gold ¹	Gold ²	2-330808-8	3-330808-8
	Gold ¹	Tin	6-330808-5	5-330808-3
	Tin	Tin	2-330808-7	—
.013–.020 0.33–0.51	Gold ¹	Gold ²	2-332095-1	2-332095-2

Bullet Nose — Recommended Hole Size:
 $.042^{+.003}_{-.000}$ [$1.07^{+0.08}_{-0.00}$] for Semiautomatic/Automatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Loose Piece	Part Numbers	
	Spring	Sleeve		Polyester Carrier Tape	
				Without Sealant 50,000/Reel	With Sealant 50,000/Reel
.012–.021 0.30–0.53	Gold ¹	Tin	645946-2	—	—
.015–.021 0.38–0.53	Tin	Tin	645945-1	—	645947-1

¹ .000030 [0.00076] gold plating.

² Gold flash.

³ To calculate diameter required for rectangular or square leads:

$$\text{Pin Diameter} = \left[\sqrt{(\text{Lead Width})^2 + (\text{Lead Thickness})^2} \right] - .003 \text{ [0.08].}$$

Series 2 Sockets — For .014–.026
[0.36–0.66] Round and .010–.018
[0.25–0.46] Square Leads³

Flat Bottom — Recommended Hole Size: $.052^{+.003}_{-.000}$ [$1.32^{+0.08}_{-0.00}$] for Semiautomatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	
	Spring	Sleeve	Closed Bottom	Knockout Bottom
.028–.021 0.46–0.53	Gold ¹	Gold ²	2-331272-2	3-331272-0
	Gold ¹	Tin	2-331272-3	—
	Gold ¹	Gold ²	50863-4	—
.014–.026 0.36–0.66	Gold ¹	Tin	50863-5	—
	Tin	Tin	50863-8	—
	Gold ¹	Gold ²	2-331272-6	—
.022–.025 0.56–0.64	Gold ¹	Tin	2-331272-7	3-331272-5
	Tin	Tin	2-331272-5	—
	Gold ¹	Gold ²	50462-6	—
.014–.026 0.36–0.66	Tin	Tin	50462-7	—

Bullet Nose — Recommended Hole Size:
 $.052^{+.003}_{-.000}$ [$1.32^{+0.08}_{-0.00}$] for Semiautomatic/Automatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Loose Piece	Part Numbers	
	Spring	Sleeve		Polyester Carrier Tape	
				Without Sealant 50,000/Reel	With Sealant 50,000/Reel
.014–.026 0.35–0.66	Gold ¹	Tin	—	—	645955-2
	Tin	Tin	—	—	645955-1

For Complete Product Information, Order Catalog 82172

Miniature Spring Sockets — (Continued)

Series 3 Sockets — For .026–.033
[0.66–0.83] Round and .025–.064
[0.64–1.62] Square Leads³

Integrated Circuit (IC) Products (Continued)

Flat Bottom — Recommended Hole Size:

$.062^{+.003}_{-.000}$ [$1.57^{+0.08}_{-0.00}$] for Semiautomatic/Automatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	
	Spring	Sleeve	Closed Bottom	Knockout Bottom
.026–.029 0.66–0.74	Gold ¹	Tin	—	3-331677-2
	Tin	Tin	—	—
.026–.033 0.66–0.84	Gold ¹	Tin	50864-1	50864-3
	Tin	Tin	50864-6	—
.030–.033 0.76–0.84	Gold ¹	Gold ²	1-331677-4	2-331677-9
	Gold ¹	Tin	1-331677-8	3-331677-4
	Tin	Tin	1-331677-3	—

Bullet Nose — Recommended Hole Size:

$.062^{+.003}_{-.000}$ [$1.57^{+0.08}_{-0.00}$] for Semiautomatic/Automatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	
	Spring	Sleeve	Polyester Carrier Tape	
			Without Sealant 10,000/Reel	With Sealant 10,000/Reel
.028–.033 0.71–0.84	Gold ¹	Tin	—	1-645986-2

¹ .000030 [0.00076] gold plating

² Gold flash.

³ To calculate diameter required for rectangular or square leads:

$$\text{Pin Diameter} = \left[\sqrt{(\text{Lead Width})^2 + (\text{Lead Thickness})^2} \right] - .003 [0.08].$$

⁴ Applies to Open Bottom and Knockout Bottom Sockets only.

Series 4 Sockets — For .034–.041
[0.86–1.04] Round and .026–.031
[0.66–0.79] Square Leads³

Flat Bottom — Recommended Hole Size:

$.071^{+.003}_{-.000}$ [$1.80^{+0.08}_{-0.00}$] for Semiautomatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	
	Spring	Sleeve	Closed Bottom	Knockout Bottom
.034–.041 0.86–1.04	Gold ¹	Tin	50865-5	50865-1
	Tin	Tin	50865-8	50865-7
.037–.040 0.94–1.02	Gold ¹	Gold ²	1-332070-1	1-332070-7
	Gold ¹	Tin	2-332070-3	3-332070-5
	Tin	Tin	2-332070-2	3-332070-4

Bullet Nose — Recommended Hole Size:

$.069^{+.003}_{-.000}$ [$1.75^{+0.08}_{-0.00}$] for Semiautomatic/Automatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Loose Piece	Part Numbers	
	Spring	Sleeve		Polyester Carrier Tape	
				Without Sealant 10,000/Reel	With Sealant 10,000/Reel
.037–.041 0.94–1.04	Gold ¹	Tin	645500-1	1-645502-1	—
	Tin	Tin	—	—	1-645501-2

For Complete Product Information, Order Catalog 82172

Miniature Spring Sockets — (Continued)

Series 5 Sockets — For .042–.065
[1.07–1.65] Round and .032–.048
[0.81–1.22] Square Leads³

Integrated Circuit (IC) Products (Continued)

Flat Bottom — Recommended Hole Size: $.102^{+.003}_{-.000}$ [$2.59^{+0.08}_{-0.00}$] for Semiautomatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	
	Spring	Sleeve	Closed Bottom	Knockout Bottom
.042–.049 1.07–1.24	Gold ¹	Tin	50871-5	50871-1
	Tin	Tin	50871-8	—
.056–.065 1.42–1.65	Gold ¹	Gold ²	—	1-50871-8
	Gold ¹	Tin	2-50871-3	1-50871-9
	Tin	Tin	2-50871-6	2-50871-4

Bullet Nose — Recommended Hole Size: $.102^{+.003}_{-.000}$ [$2.59^{+0.08}_{-0.00}$] for Semiautomatic Insertion or Hand Insertion

Pin Dia. Range	Finish		Part Numbers	Polyester Carrier Tape	
	Spring	Sleeve		Without Sealant 10,000/Reel	With Sealant 10,000/Reel
.042–.049 1.07–1.24	Gold ²	Tin	—	1-645979-2	—
	Tin	Tin	645980-1	—	—

¹.000030 [0.00076] gold plating.

²Gold flash.

³To calculate diameter required for rectangular or square leads:

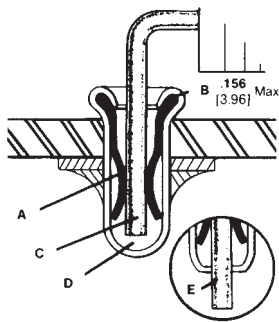
$$\text{Pin Diameter} = \left[\sqrt{(\text{Lead Width})^2 + (\text{Lead Thickness})^2} \right] - .003 \text{ [0.08].}$$

⁴Applies to Open Bottom and Knockout Bottom Sockets only.

Test Sockets

Reusable Receptacles for Component Testing

Typical Application



A. Receptacle spring member assures true readings by maintaining uniform pressure to create maximum conductivity and hold component lead in place.

B. Flared lip acts as a stop for the socket and creates a bellmouth entry for easy insertion of component leads.

C. Receptacles firmly retain component leads in two ranges: .018–.040 [0.46–1.02] and .036–.051 [0.19–1.30].

D. Drawn copper cup in all sizes and styles is inserted into .089 [2.26] mounting hole.

E. Open-end styles are available for lead feed-through.



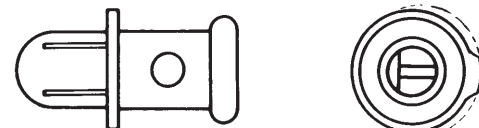
Open Bottom



Accepts Lead Size	Finish		Part Number
	Cup	Spring	
.018–.040 0.46–1.02	Tin-Lead	Gold ¹	380635-2
	Tin-Lead	Tin-Lead	380635-5

¹.000030 [0.00076] gold plating over nickel plating.

Stand-Off

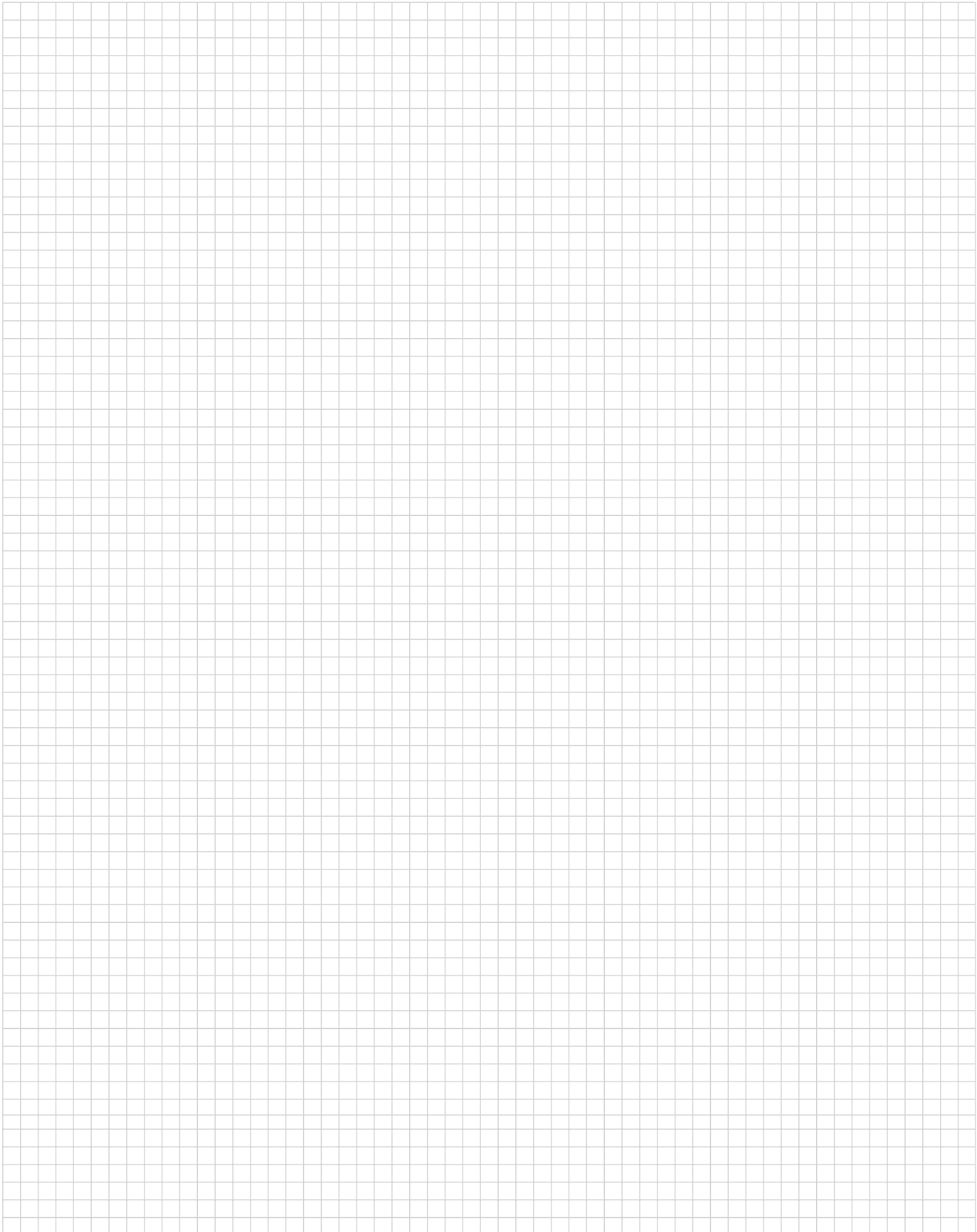


Accepts Lead Size	Finish		Part Number
	Cup	Spring	
.018–.040 0.46–1.02	Tin-Lead	Gold ¹	1-380737-0
	Tin-Lead	Tin-Lead	640593-1

¹.000030 [0.00076] gold plating over nickel plating.

For Complete Product Information, Order Catalog 82172

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Terminators

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AMPLIMITE .050 Series Terminators 293-294

Terminators (Continued)

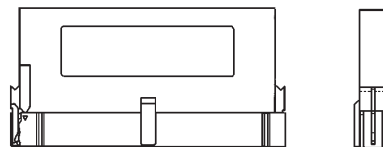
AMPMODU Terminators, Unshielded Receptacles for SCSI-1, -2, Low Density Narrow

Material and Finish

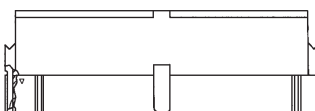
Cover and Housing — Nylon, brown

Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold on mating
end, gold flash on remainder, over
.000050 [0.00127] min. nickel
underplating

Resistors — Thick film resistor com-
position on alumina substrate



50-Position, Single-Ended, Active
Part No. 869576-1



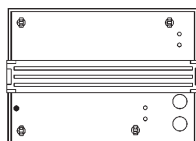
50-Position, Single-Ended
Part No. 869036-1

AMP-LATCH Terminator, Unshielded for .025 [0.635] Centerline Ribbon Cable

Material and Finish

Housings and Cover —
Thermoplastic, 94V-0 black

Contacts — Copper alloy, plated
.000100 [0.00127] min. tin-lead over
.000050 [0.00127] min. nickel



68-Position .025 [0.635]
Centerline Ribbon Cable

Active Negation Compatible—
Part No. 869705-1

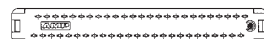
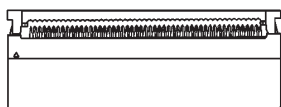
AMP-LATCH Terminator, Unshielded Receptacle for SCSI-1, -2, and .050 [1.27] Centerline Ribbon Cable Low Density Narrow

Material and Finish

Cover and Housing —
Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated
.000100 [0.00254] min. tin or tin-lead
over .000050 [0.00127] min. nickel
underplating

Resistors — Thick film resistor com-
position on alumina substrate



50-Position, Single-Ended, Active
Part No. 869574-1

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

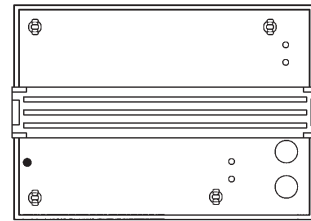
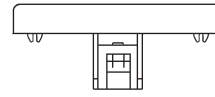
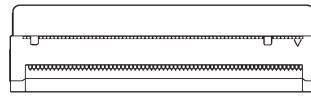
For Complete Product Information, Order Catalog 82846

Terminators (Continued)

**AMP-LATCH Terminators,
Unshielded for .025 [0.635]
Centerline Ribbon Cable,
SCSI-3, High Density Wide**
Material and Finish

Housings and Cover —
Thermoplastic, 94V-0 black

Contacts — Copper alloy, plated
.000100 [0.00127] min. tin-lead over
.000050 [0.00127] min. nickel



68-Position, .025 [0.635] Ribbon
Cable, Differential
Part No. **869794-1**

68-Position, .025 [0.635] Ribbon
Cable, Active Negation
Compatible
Part No. **869705-1**

**AMPLIMITE .050 Series
Terminators for SCSI-1, -2,
High Density Narrow Shielded,
Plugs**
Material and Finish

Housings — Thermoplastic, 94V-0
black

Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold on mating
end over .000050 [0.00127] min. nickel

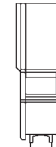
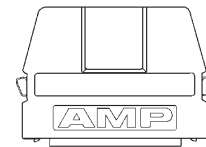
Resistors — Thick film resistor com-
position on alumina substrate

Backshells — Zinc, plated .000200
[0.00508] min. nickel over .000300
[0.0076] min. copper

Rear Plug — Brass, plated .000200
[0.00508] min. tin over .000050
[0.00127] min. copper

Shell — Steel, plated .000200
[0.00508] min. tin or tin-lead over
.000050 [0.00127] min. copper

Latching Springs and Screws —
Stainless Steel



50-Position with Die Cast Cover
with Spring Latches

Single-Ended
Part No. **749535-2**

Differential
Part No. **749541-1**

Single-Ended with Capacitor
Part No. **869329-1**

**AMPLIMITE .050 Series
Terminator for SCSI-2, High
Density Narrow Shielded,
Plugs**
Material and Finish

Housings — Thermoplastic, 94V-0
black

Cover — ABS, 94V-0 rated, beige

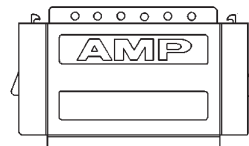
Contacts — Phosphor bronze, plated
.000030 [0.00076] min. gold on mating
end over .000050 [0.00127] min. nickel

Shell — Steel, plated .000200
[0.00508] min. tin or tin-lead over
.000050 [0.00127] min. copper

Shield — Copper

Latching Springs — Stainless Steel

Resistors — Thick film resistor com-
position on alumina substrate



50-Position Low Profile with
Plastic Cover and Inner Shield
with Spring Latches

Single-Ended, Active
Part No. **869546-1**

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82846

Terminators (Continued)

AMPLIMITE .050 Series Terminators for SCSI-3, High Density Wide Shielded, Plugs**Material and Finish**

Housings — Thermoplastic, 94V-0 black

Cover — ABS, 94V-0 rated, beige

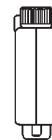
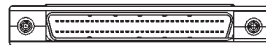
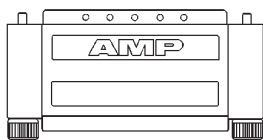
Contacts — Phosphor bronze, plated .000030 [0.00076] min. gold on mating end over .000050 [0.00127] min. nickel

Shell — Steel, plated .000200 [0.00508] min. tin or tin-lead over .000050 [0.00127] min. copper

Shield — Copper

Jackscrews — Steel alloy, plated .00015 [0.00381] min. zinc, black chromate or stainless steel; Jackscrew heads, PVC

Resistors — Thick film resistor composition on alumina substrate



68-Position, Low Profile with Plastic Cover and Inner Shield with Jackscrews

Single-Ended, Active—
Part No. **869516-1**

Single-Ended, Active—
Part No. **869611-2**

Active Negation Compatible
Part No. **869725-1**

AMPLIMITE .050 Series Feed-Thru Adapter Terminators, Shielded**Material and Finish**

Housings — Thermoplastic, 94V-0 black

Cover — ABS, 94V-0 rated, beige

Contacts — Phosphor bronze, plated .000030 [0.00076] min. gold on mating end over .000050 [0.00127] min. nickel

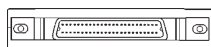
Shell — Steel, plated .000200 [0.00508] min. tin or tin-lead over .000050 [0.00127] min. copper

Shield — Copper

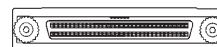
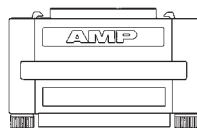
Jackscrews — Stainless steel; passivated

Jackscrew Heads — PVC

Resistors — Kapton flex film



50-Position, Plug Face

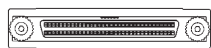


68-Position, Receptacle Face

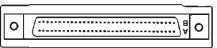
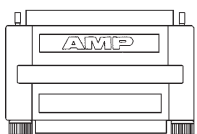
50-Position Plug to 68-Position Receptacle with Plastic Cover and Inner Shield with Latches and Jackscrews: Active, Feed-Thru—Part No. **869680-1**
Differential, Feed-Thru—Part No. **869678-1**



50-Pos. Plug-to-68-Pos. Receptacle



68-Position, Receptacle Face



68-Position, Plug Face

68-Position Plug to 68-Position Receptacle with Plastic Cover and Inner Shield with Latches and Jackscrews: Active, Feed-Thru—Part No. **869684-1**
Differential, Feed-Thru—Part No. **869682-1**



68-Pos. Plug-to-68-Pos. Receptacle

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82846

Pin and Socket Connectors

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.093 Commercial Pin and Socket Connectors	312-313
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Econoseal Sealed Connectors	340
Metrimate Connectors	341-345
High Current Threaded Mount Connector	345
Military Qualified Contacts	345

Universal MATE-N-LOK II Connectors

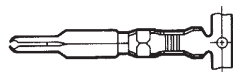
Contacts (Used in either Universal MATE-N-LOK II Plug or Cap housings on page 297)

Split Pin Diameter — .086 [2.18]
Stock Thickness — .012 [0.305]

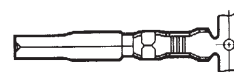
Material and Finish

Brass with pre-tin plating or phosphor bronze duplex plated .000030 [0.00076] min. gold in mating area and inside barrel over .000050 [0.00127] nickel underplate on entire contact

Pin and Socket Connectors (Continued)



Pin



Socket

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Material & Finish	Part Numbers			
			Pin		Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
24-18 [.2-.8]	.040-.100 1.02-2.54	Brass/Pre-tin	770009-1	770252-1	—	—
		Brass/Duplex ²	770009-2	770252-2	—	—
		Phos. Brz./Pre-tin	—	—	770010-3	770253-3
		Phos. Brz./Duplex ²	—	—	770010-4	770253-4
20-14 [.5-2.0]	.060-.130 1.52-3.30	Brass/Pre-tin	770007-1	—	—	—
		Brass/Duplex ²	770007-2	770250-2	—	—
		Phos. Brz./Pre-tin	—	—	770008-3	—
		Phos. Brz./Duplex ²	—	—	770008-4	770251-4
20-14 [.5-2.0]	.130-.200 3.30-5.08	Brass/Pre-tin	770005-1	770248-1	—	—
		Brass/Duplex ²	770005-2	770248-2	—	—
		Phos. Brz./Pre-tin	—	—	770006-3	770249-3
		Phos. Brz./Duplex ²	770005-4	—	770006-4	770249-4
12-10 [3.0-5.0]	.200 max.¹ 5.08	Phos. Brz./Pre-tin	770003-3	—	770004-3	—
		Phos. Brz./Duplex ²	770003-4	770246-4	770004-4	770247-4

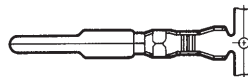
¹No insulation barrel. Insulation maximum diameter is limited by the housing. Use of strain relief is recommended.

²Duplex Finish — Plated with .000030 [0.00076] min. gold in mating area and .000050 [0.00127] min. tin-lead in crimp area over .000050 [0.00127] min. nickel underplate on entire contact.

Grounding Pin

(Mate first, break last, not for interrupting current)

Solid Pin Diameter — .084 [2.13]
.100 [2.54] longer than standard pin
Stock Thickness — .012 [0.304]



Wire Size Range AWG [mm ²]	Ins. Dia. Range	Material & Finish	Contact Part Numbers
			Strip Form
20-14 [.5-2.0]	.060-.130 1.52-3.30	Brass. Pre-tin	770193-1

Contact Insertion Tool

(For inserting contacts applied to small diameter wire)

Part No. 91002-1



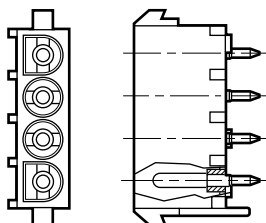
High Current Vertical Pin Headers

Material

Housing — UL 94V-0 Nylon

Contacts — Copper Alloy

Finish — Silver



No. of Circuits	Part Numbers
2	194009-1
3	194017-1
4	194010-1
5	194018-1

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK II Connectors

High Current Contacts Cable-to-Cable

Material

Body — Copper Alloy

Louvertac Band — Beryllium Copper

Retention Spring — Stainless Steel

Finish

Body — Silver

Louvertac Band — Gold

Pin and Socket Connectors (Continued)

High Current
Type XII
Part No. 193990-2

High Current
Type XII Pin
Part No. 193991-4

High Current Socket
Part No. 193797-1

High Current Pin
Part No. 193796-1

Wire Size AWG	Contact Part Numbers	
	Pin	Sockets
10	193796-1	193797-1
12-14	193841-1	193842-1
	193991-4 ¹	193990-2 ¹

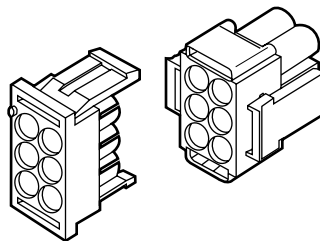
¹With Retention Spring

Housing Components Free Hanging or Panel Mount

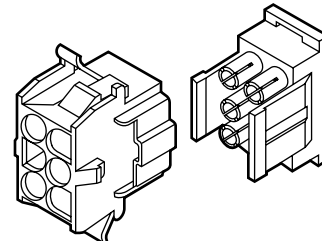
.250 [6.35] Centerline spacing

Material — Nylon

Flammability Rating — UL 94V-0



Plug Housing



Cap Housing

Number of Circuit	Kit Component Part Numbers					
	Plug			Cap		
	Kit	Front	Rear	Kit	Front	Rear
2	770017-1	770031-1	770032-1	770024-1	770045-1	770046-1
3	770018-1	770033-1	770034-1	770025-1	770047-1	—
4	770019-1	770035-1	770036-1	770026-1	770049-1	770050-1
5	770016-1	—	—	—	—	—
6	770020-1	770037-1	770038-1	770027-1	770051-1	770052-1
9	770021-1	770039-1	770040-1	770028-1	—	770054-1
12	770022-1	770041-1	770042-1	770029-1	770055-1	770056-1
15	770023-1	770043-1	770044-1	770030-1	770057-1	770058-1

Notes:

1. Kits consist of a front and rear component.
2. Kit components can be purchased separately.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalogs 65141 and 82181

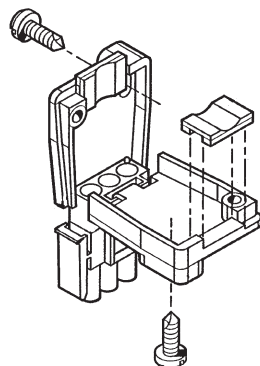
Universal MATE-N-LOK II Connectors

Plug or Cap Housing Strain Reliefs

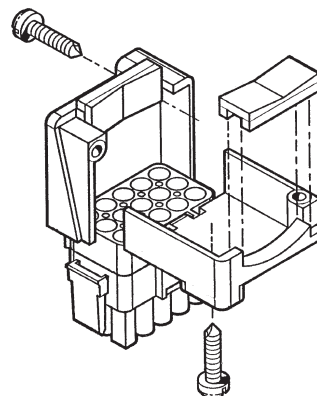
Material — Nylon

Flammability Rating — UL 94V-0

Pin and Socket Connectors (Continued)



In-Line



Matrix

Style	Number of Circuits	Insert Supplied	Single Wire Dia. Range	Wire Bundle Dia. Range	Strain Relief Part Numbers
In-Line	2	Yes	.040 – .190 1.02 – 4.83	—	640713-1
		No	—	.200 – .350 5.08 – 8.89	640713-2
	3	Yes	.040 – .190 1.02 – 4.83	—	640714-1
		No	—	.200 – .350 5.08 – 8.89	641945-1
	4	Yes	.040 – .190 1.02 – 4.83	—	641776-1
		No	—	.200 – .350 5.08 – 8.89	641776-2
Matrix	5	Yes	.040 – .190 1.02 – 4.83	—	643030-1
		No	—	.200 – .350 5.08 – 8.89	643030-4
	6	Yes	—	.120 – .650 3.05 – 16.51	640715-1
	9	Yes	—	.120 – .650 3.05 – 16.51	640716-1
	12	Yes	—	.150 – .750 3.81 – 19.05	640717-1
	15	Yes	—	.200 – .850 5.08 – 21.59	640718-1

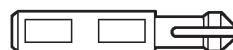
Notes:

1. Insert comes attached to strain relief. It can be used to provide additional adjustment for small wire bundles or discarded.
2. Insert to be positioned as shown by dotted lines.
3. Strain relief part number represents one-half of a strain relief. Two of a part number are required for one connector.

Keying Plug

Part No. 770377-1

Material — UL 94V-0, Nylon



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK II and Universal MATE-N-LOK Connectors

PC Board Vertical Pin Headers

Centerline Spacing — .250 [6.35]
Solder Tail Diameter — .062 [1.57]

Material

Housing —

UL 94V-2 Nylon, natural color
UL 94V-0 Nylon

Contacts — Phosphor bronze

Mating Connectors

Universal MATE-N-LOK

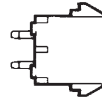
Plug Housings — pg. 304

Universal MATE-N-LOK II

Plug Housings — pg. 297

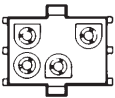
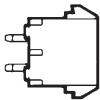
Pin and Socket Connectors (Continued)

2, 3, 4, 5, 6 and 8 Circuit, In-Line



Number of Circuits	Flammability Rating	Pin Finish	Pin Header Part Numbers			Mates with Plug Housing Part Number (Using Socket Contacts)	
			Standard Tail ²	Standard Tail Polarized ²	Long Tail ³	UMNL	UMNL II
2	UL 94V-2	Pre-tin	350428-1	—	350582-1	1-480698-0	—
		Duplex ¹	350428-2	—	350582-2		
	UL 94V-0	Pre-tin	350786-1	641964-1 1-641964-1 ⁴	350787-1	350777-1	770017-1
		Duplex ¹	350786-2	—	350787-2		
3	UL 94V-2	Pre-tin	350429-1	641965-1	350583-1	1-480700-0	—
		Duplex ¹	350429-2	—	350583-2		
	UL 94V-0	Pre-tin	350789-1	641966-1 1-641966-1 ⁴	350790-1	350766-1	770018-1
		Duplex ¹	350789-2	—	350790-2		
4	UL 94V-2	Pre-tin	350430-1	641967-1	350584-1	1-480702-0	—
		Duplex ¹	350430-2	—	350584-2		
	UL 94V-0	Pre-tin	350792-1	641968-1	350793-1	350779-1	770019-1
		Duplex ¹	350792-2	—	350793-2		
5	UL 94V-2	Pre-tin	640466-1	643405-1	—	1-480763-0	—
		Duplex ¹	—	—	—		
	UL 94V-0	Pre-tin	640900-1	643406-1	—	350809-1	770016-1
		Duplex ¹	640900-2	—	—		
6	UL 94V-2	Pre-tin	641832-1	643407-1	—	640585-1	—
	UL 94V-0	Pre-tin	641831-1	643408-1	—	640581-1	—
8	UL 94V-2	Pre-tin	641825-1	—	770143-1	640586-1	—
	UL 94V-0	Pre-tin	641828-1	643410-1	770272-1	640582-1	—

6, 9, 12 and 15 Circuit, Matrix



Number of Circuits	Flammability Rating	Pin Finish	Pin Header Part Numbers			Mates with Plug Housing Part Number (Using Socket Contacts)	
			Standard Tail ²	Standard Tail Polarized ²	Long Tail ³	UMNL	UMNL II
6	UL 94V-2	Pre-tin	350431-1	641969-1	350585-1	1-480704-0	—
		Duplex ¹	350431-2	—	350585-2		
	UL 94V-0	Pre-tin	350711-1	641970-1	350732-1	350715-1	770020-1
		Duplex ¹	350711-2	641970-2	350732-2		
9	UL 94V-2	Pre-tin	350432-1	641971-1	350586-1	1-480706-0	—
		Duplex ¹	350432-2	—	350586-2		
	UL 94V-0	Pre-tin	350712-1	641972-1 1-641972-1 ⁴	350742-1	350720-1	770021-1
		Duplex ¹	350712-2	—	350742-2		
12	UL 94V-2	Pre-tin	350433-1	641973-1	350587-1	1-480708-0	—
		Duplex ¹	350433-2	—	—		
	UL 94V-0	Pre-tin	350713-1	641974-1	350737-1	350735-1	770022-1
		Duplex ¹	350713-2	—	350737-2		
15	UL 94V-2	Pre-tin	350434-1	641975-1	350588-1	1-480710-0	—
		Duplex ¹	350434-2	—	350588-2		
	UL 94V-0	Pre-tin	350714-1	641976-1	350738-1	350736-1	770023-1
		Duplex ¹	350714-2	—	350738-2		

¹Duplex Finish — Plated with .000030 [.000762] min. gold in mating area, matte tin-lead on solder tail end over .000050 [.00127] min. nickel underplate on entire contact.

²Use Standard Tail for .062 [1.57] thick PC Board.

³Use Long Tail for .125 [3.18] thick PC Board.

⁴Black in color.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK II and Universal MATE-N-LOK Connectors

PC Board Vertical Socket Headers

Centerline Spacing — .250 [6.35]
Solder Tail Diameter — .062 [1.57]

Material

Housing —

UL 94V-2 Nylon, natural color
UL 94V-0 Nylon

Contacts — Phosphor bronze

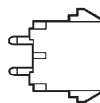
Mating Connectors

Universal MATE-N-LOK —
Plug Housings — pg. 304

Universal MATE-N-LOK II —
Plug Housings — pg. 297

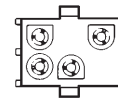
Pin and Socket Connectors (Continued)

2, 3, 4, 5, and 6 Circuit, In-Line



Number of Circuits	Flammability Rating	Socket Finish	Socket Header Part Numbers			Mates with Plug Housing Part Number (Using Pin Contacts)	
			Standard Tail ²	Standard Tail Polarized ²	Long Tail ³	UMNL	UMNL II
2	UL 94V-2	Pre-tin	350759-4	643411-1	—	1-480698-0	—
		Duplex ¹	350759-3	—	—		
	UL 94V-0	Pre-tin	350824-1	643412-1	350831-1	350777-1	770017-1
		Duplex ¹	350824-2	—	—		
3	UL 94V-2	Pre-tin	350760-4	643413-1	—	1-480700-0	—
		Duplex ¹	350760-3	—	—		
	UL 94V-0	Pre-tin	350825-1	643414-1	350832-1	350766-1	770018-1
		Duplex ¹	350825-2	—	350832-2		
4	UL 94V-2	Pre-tin	350761-4	643415-1	350988-4	1-480702-0	—
		Duplex ¹	350761-3	—	—		
	UL 94V-0	Pre-tin	350826-1	643416-1	350833-1	350779-1	770019-1
		Duplex ¹	350826-2	—	350833-2		
5	UL 94V-2	Pre-tin	640467-1	—	—	1-480763-0	—
		Pre-tin	640901-1	—	—	350809-1	770016-1
	UL 94V-0	Pre-tin	640901-1	—	—		
		Duplex ¹	640901-2	—	—		
6	UL 94V-0	Duplex ¹	770262-2	—	—	640581-1	—

6, 9, 12 and 15 Circuit, Matrix



Number of Circuits	Flammability Rating	Socket Finish	Socket Header Part Numbers			Mates with Plug Housing Part Number (Using Pin Contacts)	
			Standard Tail ²	Standard Tail Polarized ²	Long Tail ³	UMNL	UMNL II
6	UL 94V-2	Pre-tin	350762-4	643423-1	350989-4	1-480704-0	—
		Duplex ¹	350762-3	—	—		
	UL 94V-0	Pre-tin	350827-1	643424-1	350834-1	350715-1	770020-1
		Duplex ¹	350827-2	—	350834-2		
9	UL 94V-2	Pre-tin	350763-4	—	350990-4	1-480706-0	—
		Duplex ¹	350763-3	—	—		
	UL 94V-0	Pre-tin	350828-1	643426-1	350835-1	350720-1	770021-1
		Duplex ¹	—	—	350835-2		
12	UL 94V-2	Pre-tin	350764-4	—	350991-4	1-480708-0	—
		Duplex ¹	350764-3	—	—		
	UL 94V-0	Pre-tin	350829-1	643428-1	—	350735-1	770022-1
		Duplex ¹	350829-2	—	—		
15	UL 94V-2	Pre-tin	350765-4	643429-1	—	1-480710-0	—
		Duplex ¹	350765-3	—	—		
	UL 94V-0	Pre-tin	350830-1	643430-1	350837-1	350736-1	770023-1
		Duplex ¹	350830-2	—	—		

¹Duplex Finish — Plated with .000030 [.000762] min. gold in mating area, matte tin-lead on solder tail end over .000050 [.00127] min. nickel underplate on entire contact.

²Use Standard Tail for .062 [1.57] thick PC Board.

³Use Long Tail for .125 [3.18] thick PC Board.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK II and Universal MATE-N-LOK Connectors

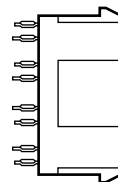
PC Board Vertical Pin Headers with ACTION PIN Contacts

Material

Housing — PBT, black

Flammability Rating — UL 94V-0

Contacts — Copper alloy, plated with
tin-lead over nickel on entire contact



Pin and Socket Connectors (Continued)

Number of Circuits	Part Number	Mates with Housing Part Number (Using Socket Contacts)	
		UMNL	UMNL II
2	173924-1	1-480698-0 350777-1	770017-1
3	173925-1	1-480700-0 350766-1	770018-1
4	173926-1	1-480702-0 350779-1	770019-1

Note: Install in PC Board with arbor press.

PC Board Right Angle Pin and Socket Headers

Centerline Spacing — .250 [6.35]

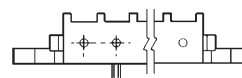
Solder Tail Width — .052 [1.32]

Material

Housing — Nylon

Contacts — Phosphor Bronze

2, 3, 4, 5, 6 and 8 Circuit, In-line



No. of Circuits	Contact Finish	Right Angle Header Part Numbers					
		UL 94V-2			UL 94V-0		
		Pin	Socket	Mates with	Pin	Socket	Mates with UMNL UMNL II
2	Pre-tin	—	—	—	1-350942-0	643226-1	350777-1 770017-1
	Duplex ¹	—	—	—	2-350942-0	—	
3	Pre-tin	—	—	—	1-350943-0	643228-1	350766-1 770018-1
	Duplex ¹	—	—	—	2-350943-0	—	
4	Pre-tin	1-350948-0	—	1-480702-0	1-350944-0	643230-1	350779-1 770019-1
	Duplex ¹	—	—	—	2-350944-0	—	
5	Pre-tin	1-350949-0	—	1-480763-0	1-350945-0	643232-1	350809-1 770016-1
	Duplex ¹	—	—	—	2-350945-0	—	
6	Pre-tin	640587-1	643235-1	—	640583-1	643234-1	640581-1 —
	Duplex ¹	—	—	—	640583-2	—	
8	Pre-tin	—	643237-1	—	640584-1	643236-1	640582-1 —
	Duplex ¹	—	—	—	640584-2	—	

¹Duplex Finish — Plated with .000030 [.000762] min. gold in mating area, matte tin-lead on solder tail end over .000050 [.00127] min. nickel underplate on entire contact.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK Connectors

Solid Contacts (Used in either Universal MATE-N-LOK Plug or Cap housings on page 304)

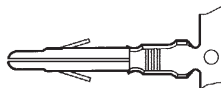
Solid Pin Diameter — .084 [2.13]

Stock Thickness — .012 [0.305]
unless otherwise noted

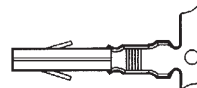
Material and Finish

See chart at right

Pin and Socket Connectors (Continued)



Pin



Socket

Wire Size Range AWG [mm²]	Ins. Dia. Range	Material & Finish	Part Numbers			
			Pin		Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
30-26 [.05-.12]	.032-.057 .813-1.45	Brass/Pre-tin	350924-1	—	350925-1	770673-1
		Phos. Brz./Gold ²	—	770672-6	—	—
24-18 [.2-.8]	.040-.100 1.02-2.54	Brass/Pre-tin	350561-1	350690-1	350851-1 350570-1 ¹	350689-1 ¹
		Brass/Gold ²	350561-2	350690-2	350851-2 350570-2 ¹	640347-2 350689-2 ¹
		Brass/Sel. Gold ³	350561-7	350690-7	350851-7 350570-7 ¹	350689-7 ¹
		Phos. Brz./Pre-tin	350561-3	350690-3	350570-3 ¹	350689-3 ¹
		Phos. Brz./Sel. Gold ³	—	—	350570-6 ¹	—
		Brass/Pre-tin	350218-1	350547-1	350536-1	350550-1
20-14 [.5-2.0]	.060-.130 1.52-3.30	Brass/Gold ²	350218-2	350547-2	350536-2	350550-2
		Brass/Sel. Gold ³	350218-7	350547-7	350536-7	350550-7
		Phos. Brz./Pre-tin	350218-3	350547-3	350536-3	350550-3
		Phos. Brz./Sel. Gold ³	350218-6	350547-6	350536-6	350550-6
		Brass/Pre-tin	350538-1	350552-1	350537-1	350551-1
		Brass/Gold ²	350538-2	350552-2	350537-2	350551-2
20-14 [.5-2.0]	.130-.200 3.30-5.08	Brass/Sel. Gold ³	350538-7	350552-7	350537-7	350551-7
		Phos. Brz./Pre-tin	350538-3	350552-3	350537-3	350551-3
		Phos. Brz./Sel. Gold ³	350538-6	—	350537-6	350661-6
		Brass/Pre-tin	350873-1	—	350874-1	—
18-14 ⁴ [.8-2.0]	.130-.200 3.30-5.08	Phos. Brz./Pre-tin	350873-3	350918-3	350874-3	350919-3
		Phos. Brz./Pre-tin	350922-3	—	350923-3	640310-3
12-10 [3.0-5.0]	.200 max.⁵ 5.08	Phos. Brz./Sel. Gold ³	350922-6	640309-6	—	—

¹Socket Contact — .010 [.254] stock thickness

²Gold Finish — Plated with .000030 [.000762] min. gold in mating area and inside wire barrel over .000050 [.00127] min. nickel underplate on entire contact.

³Select Gold Finish — Plated with .000030 [.000762] min. gold in mating area over .000050 [.00127] min. nickel underplate on entire contact.

⁴Recommended for predominant use of 14 AWG wire.

⁵No insulation barrel. Insulation maximum diameter is limited by the housing. Use of strain relief is recommended.

Contact Insertion Tool

(For inserting contacts applied to small diameter wire)

Part No. 91002-1



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK Connectors

Split Contact — Pins

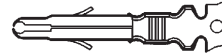
Solid Pin Diameter — .084 [2.13]

Split Pin Diameter — .086 [2.18]

Stock Thickness — .012 [0.305]

These contacts can be used in either Universal MATE-N-LOK Plug or Cap housings only.

Pin and Socket Connectors (Continued)



Wire Size Range AWG [mm ²]	Ins. Dia. Range	Material & Finish	Contact Part Number	
			Strip Form	Loose Form
24-18 [.2-.8]	.040-.100 1.02-2.54	Brass, Pre-tin	350699-1	350706-1
		Brass, Gold ¹	350699-2	350706-2
		Brass, Select Gold ²	350699-7	350706-7
20-14 [.5-2.0]	.060-.130 1.52-3.30	Brass, Pre-tin	350687-1	350705-1
		Brass, Gold ¹	350687-2	350705-2
		Brass, Select Gold ²	350687-7	350705-7
20-14 [.5-2.0]	.130-.200 3.30-5.08	Brass, Pre-tin	350700-1	350707-1
		Brass, Select Gold ²	350700-7	—

¹Gold Finish — Plated with .000030 [.000762] min. gold in mating area and inside wire barrel over .000050 [.00127] min. nickel underplate on entire contact.

²Select Gold Finish — Plated with .000030 [.000762] min. gold in mating area over .000050 [.00127] min. nickel underplate on entire contact.

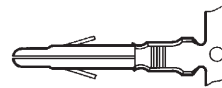
Notes:

- AMP recommends split pins be used in housings having 6, 9, 12 and 15 circuits to reduce mating force.
- Phosphor bronze material contacts are available for use in high temperature/humidity cycling applications, consult AMP.

Grounding Contacts — Pins

(Mate first, break last, not for interrupting current)

.100 [2.54] longer than standard pin



Wire Size Range AWG [mm ²]	Ins. Dia. Range	Material & Finish	Contact Part Number	
			Strip Form	Loose Form
24-18 [.2-.8]	.060-.130 1.52-3.30	Brass, Pre-tin	770210-1	—
20-14 [.5-2.0]	.060-.130 1.52-3.30	Brass, Pre-tin	350654-1	350669-1

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK Connectors

Housings — In-Line and Matrix
(Free Hanging or Panel Mount)

Centerline Spacing — .250 [6.35]

Contacts — Order separately (see pages 302, 303 and 306)

Material

Nylon (See chart at right)

Mating Headers

See pages 299, 300 and 301

Keying Plug



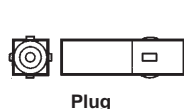
Part Numbers

UL 94V-2 Nylon material, natural color — **1-640415-1**

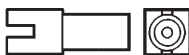
UL 94V-0 Nylon material — **1-640415-0**

Note: Keying plug snaps into plug or cap housing

Pin and Socket Connectors (Continued)

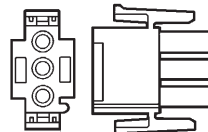


Plug

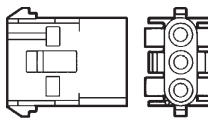


Cap

1 Circuit (Free Hanging)

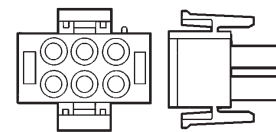


Plug

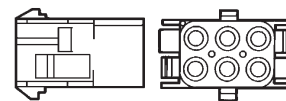


Cap

2, 3, 4, 5, 6, 8 Circuit In-Line

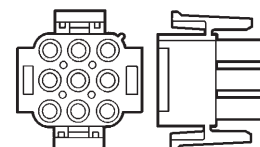


Plug

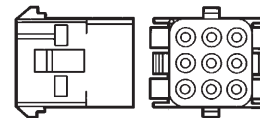


Cap

6 Circuit Matrix



Plug



Cap

9, 12, 15 Circuit Matrix

No. of Circuits	Part Numbers			
	UL 94V-2 Nylon		UL 94V-0 Nylon	
	Plug	Cap	Plug	Cap
1	1-350867-0	1-770421-1	350865-1	350866-1
2	1-480698-0 ¹	1-480699-0 ¹	350777-1 ¹	350778-1 ¹
3	1-480700-0 ¹	1-480701-0 ¹	350766-1 ¹	350767-1 ¹
4	1-480702-0 ¹	1-480703-0 ¹	350779-1 ¹	350780-1 ¹
5	1-480763-0 ¹	1-480764-0 ¹	350809-1 ¹	350810-1 ¹
6	640585-1 ¹	1-926307-1 ¹	640581-1 ¹	350781-1
	1-480704-0	1-480705-0	350715-1	350781-1
8	1-640586-1 ¹	1-926308-1 ¹	640582-1 ¹	926308-3 ¹
9	1-480706-0	1-480707-0	350720-1	350782-1
12	1-480708-0	1-480709-0	350735-1	350783-1
15	1-480710-0	1-480711-0	350736-1	350784-1

¹ In-Line style

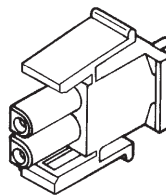
Test Connectors (with spring loaded contacts)

Material

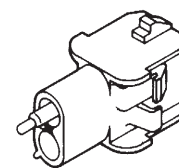
Housing — Nylon

Flammability Rating — UL 94V-0

2, 3, 4 and 5 Circuit,
In-Line



Plug



Cap

Number of Circuits	Part Numbers	
	Plug	Cap
2	350848-2	—
3	—	350849-3
4	350848-4	—

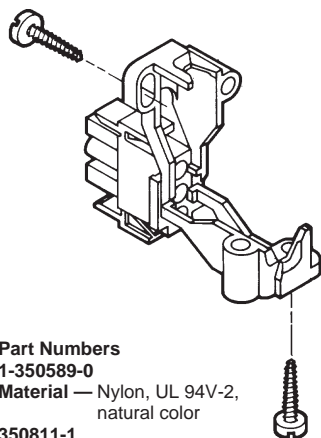
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK Connectors

Plug Housing Strain Reliefs

2, 3, 4, 5, 6 and 8 Circuit, In-Line



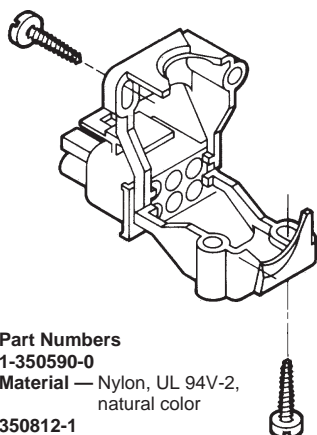
Part Numbers
1-350589-0

Material — Nylon, UL 94V-2, natural color

350811-1

Material — Nylon, UL 94V-0

6, 9, 12 and 15 Circuit, Matrix



Part Numbers
1-350590-0

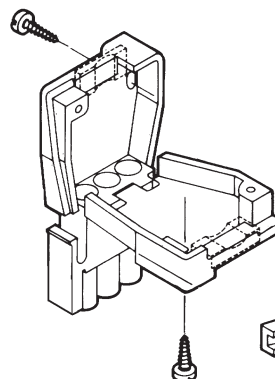
Material — Nylon, UL 94V-2, natural color

350812-1

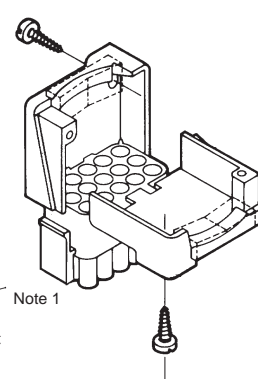
Material — Nylon, UL 94V-0

Plug or Cap Housing Strain Reliefs

2, 3, 4, 5, 6, 8, 9, 12 and 15 Circuit (Enclosed)



In-Line

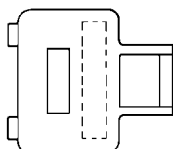


Matrix

See Table Below

Note: Strain relief part number represents one half of a strain relief. Two strain reliefs required per housing.

Cap Housing Adapters For All Positions Except 2, 6 and 8 Circuit Cap Housings



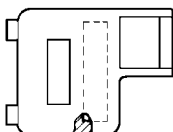
Part Numbers
641777-1

Material — Nylon, UL 94V-2, natural color

641778-1

Material — Nylon, UL 94V-0

For 2 In-Line and 6 Matrix Circuit Cap Housings Only



Part Numbers
643182-1

Material — Nylon, UL 94V-2, natural color

643182-2

Material — Nylon, UL 94V-0

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Style	Number of Circuits	Insert Supplied	Single Wire Dia. Range	Wire Bundle Dia. Range	Part Numbers (Enclosed)	
					UL 94V-2 Nylon, Natural Color	UL 94V-0 Nylon
In-Line	2	Yes	.040-.190 1.02-4.83	—	1-640719-0	640713-1
		No	—	.200-.350 5.08-8.89	1-640719-1	640713-2
	3	Yes	.040-.190 1.02-4.83	—	1-640720-0	640714-1
		No	—	.200-.350 5.08-8.89	641763-1	641945-1
	4	Yes	.040-.190 1.02-4.83	—	641775-1	641776-1
		No	—	.200-.350 5.08-8.89	641775-2	641776-2
	5	Yes	.040-.190 1.02-4.83	—	643030-3	643030-1
		No	—	.200-.350 5.08-8.89	643030-2	643030-4
	6 Note 5	No	—	.200-.350 5.08-8.89	—	643313-2
	8 Note 5	Yes	.040-.190 1.02-4.83	—	—	643314-1
Matrix	6	Yes	—	.120-.650 3.05-16.51	1-640721-0	640715-1
	9	Yes	—	.120-.650 3.05-16.51	1-640722-0	640716-1
	12	Yes	—	.150-.750 3.81-19.05	1-640723-0	640717-1
	15	Yes	—	.200-.850 5.08-21.59	1-640724-0	640718-1

Notes:

- Cable clamping insert comes attached to strain relief. It can be used to provide additional adjustment for small wire bundles or discarded.
- Insert to be positioned as shown by dotted lines.
- Strain relief part number represents one-half of a strain relief. Two strain reliefs required per housing.
- Must use cap housing adapters when attaching strain reliefs to a cap housing. Two adapters required per housing.
- Strain reliefs for 6 and 8 position In-Line fits plug housings only.

For Complete Product Information, Order Catalog 82181

Universal MATE-N-LOK Connectors

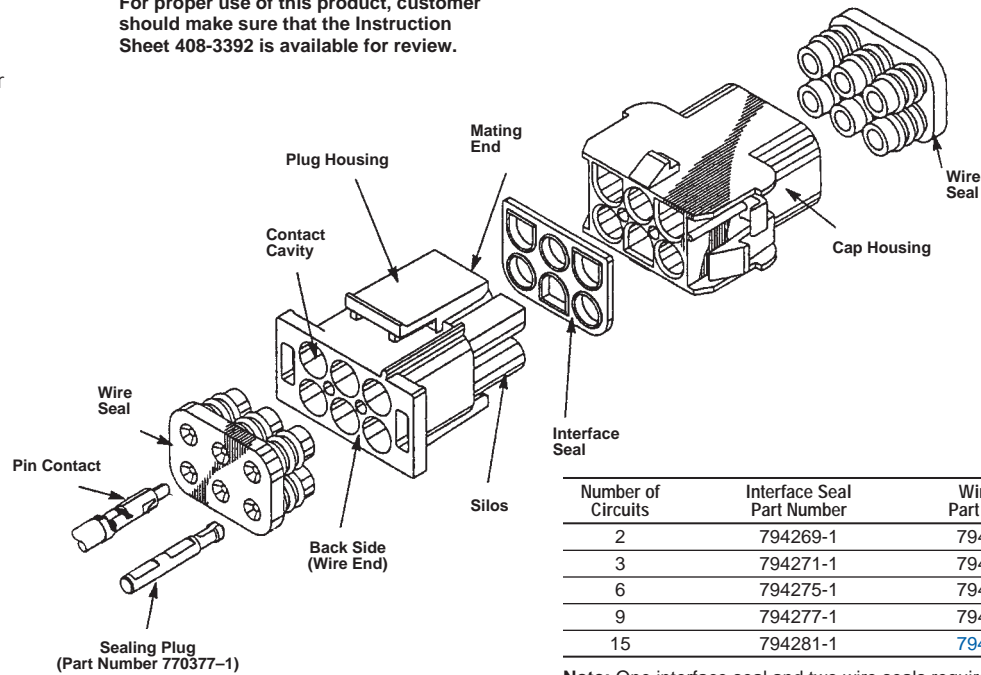
Connector Seals

Material

Silicone rubber, blue color

Pin and Socket Connectors (Continued)

For proper use of this product, customer should make sure that the Instruction Sheet 408-3392 is available for review.



Number of Circuits	Interface Seal Part Number	Wire Seal Part Number
2	794269-1	794270-1
3	794271-1	794272-1
6	794275-1	794276-1
9	794277-1	794278-1
15	794281-1	794282-1

Note: One interface seal and two wire seals required per mated assembly.

Contacts used with Splash Proof Seals

Solid Pin Diameter — .084 [2.13]

Split Pin Diameter — .086 [2.18]

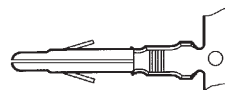
Stock Thickness — .012 [.305]

unless otherwise noted.

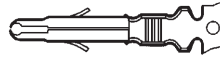
These contacts can be used in either Universal MATE-N-LOK Plug or Cap housings only.

Notes:

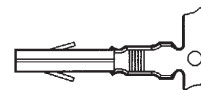
- AMP recommends split pins be used in housings having 6, 9, 12 and 15 circuits to reduce mating force.
- Phosphor bronze material contacts are available for use in high temperature/humidity cycling applications, consult AMP.
- 18-24 AWG contacts page 302 can be used with splash proof seals if insulation diameter range is .060-.100.



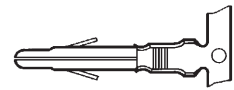
Solid Pin



Split Pin



Solid Socket



Grounding Pin

(.100 [2.54] longer than standard pin)
(Mate first, break last, not for interrupting current)

Wire Size Range AWG [mm²]	Ins. Dia. Range	Material & Finish	Style	Contact Part Numbers			
				Pin		Socket	
				Strip Form	Loose Form	Strip Form	Loose Form
20-14 [.5-2.0]	.060-.130 1.52-3.30	Brass, Pre-tin	Solid	350218-1	350547-1	350536-1	350550-1
		Brass, Gold ¹		350218-2	350547-2	350536-2	350550-2
		Brass, Select Gold ²		350218-7	350547-7	350536-7	350550-7
		Phos. Brz., Pre-tin		350218-3	350547-3	350536-3	350550-3
		Phos. Brz., Select Gold ²	Split	350218-6	350547-6	350536-6	350550-6
		Brass, Pre-tin		350687-1	350705-1	—	—
		Brass, Gold ¹		350687-2	350705-2	—	—
		Brass, Select Gold ²		350687-7	350705-7	—	—
		Brass, Pre-Tin	Ground	350654-1	350669-1	—	—

¹Gold Finish—Plated with .000030 [.000762] min. gold in mating area and inside wire barrel over .000050 [.00127] min. nickel underplate on entire contact.

²Select Gold Finish—Plated with .000030 [.000762] min. gold in mating area over .000050 [.00127] min. nickel underplate on entire contact.

UMNL II Keying Plug/
Splash Proof Sealing Plug

Material

UL 94V-0 Nylon material

Part Number 770377-1

Contact Insertion Tool

(For inserting contacts applied to small diameter wire)
Part No. 91002-1



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Commercial MATE-N-LOK Connectors

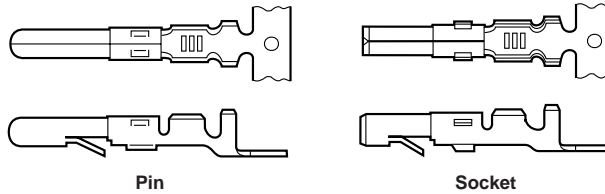
Contacts (Used in Commercial MATE-N-LOK housings on page 308)

Pin Diameter — .084 [2.13]
Stock Thickness — .012 [0.305]

Material and Finish

Brass or phosphor bronze with pre-tin plating or brass selectively plated .000030 [0.00076] min. gold in mating area over 0.000050 [0.00127] nickel underplate on entire contact

Pin and Socket Connectors (Continued)



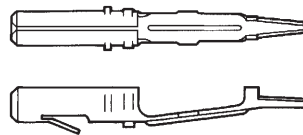
Wire Size Range AWG [mm²]	Ins. Dia. Range	Materials & Finish	Part Numbers			
			Pin		Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
30-22 [.05-.3]	.040-.075 1.02-1.91	Brass/Pre-tin	350079-1	61174-1	350078-1	61173-1
		Phos. Brz./Pre-tin	350079-4	—	—	61173-4
		Brass/Gold ¹	350079-5	61174-5	—	—
		Brass/Pre-tin	61116-1	60618-1	61314-1	60617-1
24-18 [.2-.8]	.060-.100 1.52-2.54	Phos. Brz./Pre-tin	61116-4	60618-4	61314-4	60617-4
		Brass/Gold ¹	61116-5	60618-5	61314-5	60617-5
		Phos. Brz./Sel. Gold ²	61116-6	60618-6	61314-6	60617-6
		Brass/Sel. Gold ²	61116-7	—	—	—
		Brass/Pre-tin	61118-1	60620-1	61117-1	60619-1
20-14 [.5-2.0]	.100-.130 2.54-3.30	Phos. Brz./Pre-tin	61118-4	60620-4	61117-4	60619-4
		Brass/Gold ¹	61118-5	60620-5	61117-5	60619-5
		Phos. Brz./Gold ¹	—	—	61117-6	60619-7
		Brass/Pre-tin	350558-1	350639-1	350557-1	—
(2) 18 [.8] or (1) 18 [.8] & (1) 16 [1.2]	(2) .115 Max. 2.92 (stacked)	Phos. Brz./Pre-tin	—	—	350557-4	350638-4

¹Gold Finish — Plated with .000030 [.000762] min. gold in mating area and inside wire barrel over .000050 [.00127] min. nickel underplate on entire contact.

²Select Gold Finish — Plated with .000030 [.000762] min. gold in mating area over .000050 [.00127] min. nickel underplate on entire contact.

Notes:

- Extraction Tools: Pins — No. **1-305183-1** (IS 408-7158); Sockets — No. **1-305183-2** (IS 408-7158); Pins and Sockets — No. 465644-1 (IS 408-7211)
- Insertion Tools: No. **455830-1** (IS 408-7984)



PC Board Socket

Type of Contact	Material & Finish	Part Numbers	
		Pin	Socket
		Loose Form	Loose Form
Pc Board	Phos. Brz., Pre-tin	—	61320-1 ¹
	Phos. Brz., Pre-tin	—	350073-1 ²

¹For .062 [1.57] max. board thickness — Board hole size .057 [1.45]

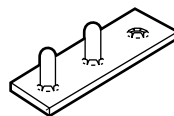
²For .125 [3.14] max. board thickness — Board hole size .057 [1.45]

Commoning Tabs

Material and Finish

Brass, tin plated

Stock Thickness — .008 [.203]



Number of Holes	Part Number
2	60843-1
2	350444-1
3	60842-1
3	350444-2

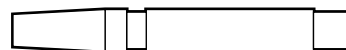
Note: Commoning tabs are designed to be used with pin housings.

Keying Plug

Material

Housing — Nylon, natural color

Flammability Rating — UL 94V-2



Part Number 200821-1

Note: Keying plug snaps into socket housing

For Complete Product Information, Order Catalog 82181

Commercial MATE-N-LOK Connectors

Housings — Free Hanging

Centerline Spacing — .200 [5.08]
Contacts — Order separately (see page 307)

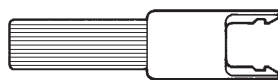
Material

Nylon, UL 94V-2, natural color

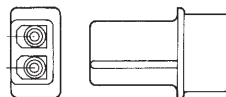
Mating Headers

Pages 309 and 310

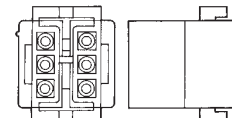
Pin and Socket Connectors (Continued)



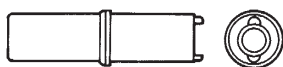
Pin Housing (Cap)



Pin Housing (Cap)

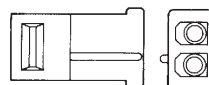


Pin Housing (Cap)



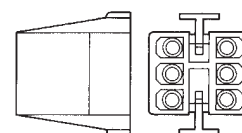
Socket Housing (Plug)

1 Circuit



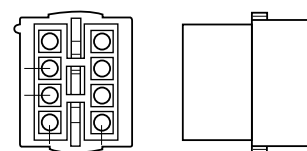
Socket Housing (Plug)

2, 3, 4 Circuit In-Line

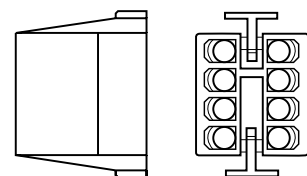


Socket Housing (Plug)

6 Circuit Dual Row



Pin Housing (Cap)



Socket Housing (Plug)

8 Circuit Dual Row

No. of Circuits	Part Numbers	
	Pin Housing (Cap)	Receptacle Housing (Plug)
1	1-480350-0 ¹	1-480349-0
	1-480351-0 ²	—
	1-480401-0 ^{1,3}	1-480400-0 ³
2	1-480319-0 ^{1,4}	1-480318-0 ⁴
	1-480498-1 ^{1,3,4}	—
3	—	1-480303-0 ⁴
	1-480387-0 ^{1,3,4}	1-480388-0 ^{3,4}
4	—	1-480424-0 ^{3,4}
	—	770827-1 ^{4,5,6}
6	1-480340-0	—
8	1-480345-0	—
10	1-480339-0	—

¹Detent lock

²Positive lock

³UV Stabler black color

⁴Housing accepts double wire applications where individual insulation diameters do not exceed .115 [2.92]

⁵Used by the disk drive industry

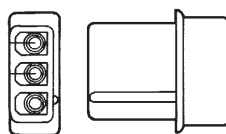
⁶Housing Material UL 94V-0 rated

Housings — Panel Mount Positive Lock

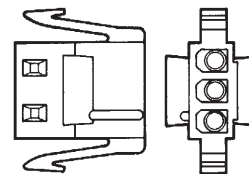
Material

Housing — Nylon, natural color
Flammability Rating — UL 94V-2

3 and 4 Circuit, In-Line

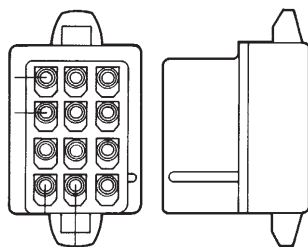


Pin Housing (Cap)

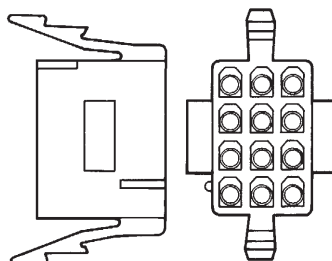


Socket Housing (Plug)

6, 9, 12 and 15 Circuit, Matrix



Pin Housing (Cap)



Socket Housing (Plug)

Number of Circuits	Part Numbers	
	Pin Housing (Cap)	Socket Housing (Plug)
3	1-480305-0 ¹	1-480304-0
4	1-480426-0 ^{1,3}	1-480425-0 ³
6	1-480276-0 ²	1-480273-0
9	1-480277-0 ²	1-480274-0
12	1-480278-0 ²	1-480275-0
15	1-480324-0 ²	1-480323-0

¹Detent lock

²Positive lock

³Used by disk drive industry

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Commercial MATE-N-LOK Connectors

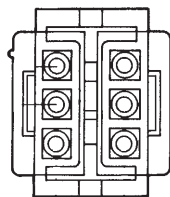
Housings — Motor Mount
6, 8, 10, 12 and 16 Circuit,
Dual Row, Positive Lock

Material

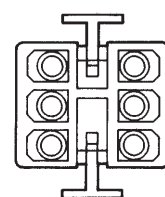
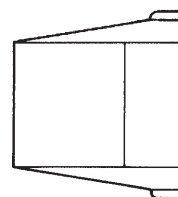
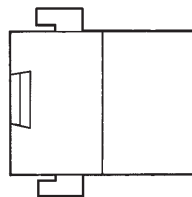
Housing — Nylon, natural color

Flammability Rating — UL 94V-2

Pin and Socket Connectors (Continued)



Pin Housing (Cap)



Socket Housing (Plug)

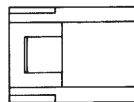
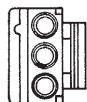
Number of Circuits	Part Numbers	
	Pin Housing (Cap)	Socket Housing (Plug)
6	1-480271-0	1-480270-0 ¹
8	1-480284-0	1-480283-0 ¹
10	1-480286-0	1-480285-0 ¹
12	1-480288-0	1-480287-0
16	1-480439-0	1-480438-0

¹Housing accepts double wire applications where individual insulation diameters do not exceed .115 [2.92].

Housings — Positive Lock

Centerline Spacing — .200 [5.08]

2, 3, and 4 Circuit, In-Line



Socket Housing (Plug)

No. of Circuits	Part Numbers Socket Housing (Plug)
2	1-480720-0
3	1-480721-0
4	1-480722-0 ¹

¹Used by the disk drive industry.

PC Board Vertical Pin Headers

Centerline Spacing — .200 [5.08]

Solder Tail Diameter — .062 [1.57]

Material

Housing — UL 94V-2 Nylon,
natural color

Contacts — Phosphor bronze with
pre-tin plating

Mating Connectors

Commercial MATE-N-LOK —
Socket Housings on pages 308, above
and 310

¹Duplex Finish — Plated with
.000030 [.000762] min. gold in mat-
ing area, matte tin-lead on solder
tail end over .000050 [.00127] min.
nickel underplate on entire contact.
²Use standard tail for .062 [1.57]
thick PC Board.

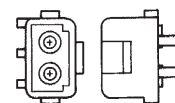
³Use long tail for .125 [3.18] thick PC
Board.

⁴Used by the disk drive industry.

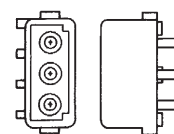
⁵With drain holes.

No. of Circuits	Type Lock	Finish	Part Numbers	
			Standard Tail ²	Long Tail ³
2	Positive	Pre-tin	350539-1	—
	Detent	Pre-tin	350209-1	350422-1
3	Positive	Duplex ¹	350209-2	—
		Pre-tin	350541-1	—
	Detent	Pre-tin	350210-1	350423-1
		Duplex ¹	350210-2	—
4	Positive	Pre-tin	350543-1 ⁴	350544-1 ⁴
		Duplex ¹	350543-2 ⁴	—
	Detent	Pre-tin	350211-1 ⁴	350424-1 ⁴
		770328-1 ^{4,5}	—	—
	Duplex ¹	350211-2 ⁴	—	—
		—	—	—
6	Positive	Pre-tin	1-380999-0	350425-1
		Duplex ¹	2-380999-0	—
8	Positive	Pre-tin	350212-1	350426-1
		Duplex ¹	350212-2	—
10	Positive	Pre-tin	1-380991-0	350219-1
		Duplex ¹	2-380991-0	—
12	Positive	Pre-tin	350213-1	350220-1
		Duplex ¹	350213-2	—
16	Positive	Pre-tin	350214-1	350427-1

2, 3, 4 Circuit In-Line

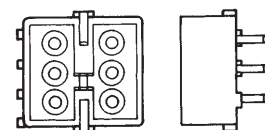


Positive Lock



Detent Lock

6, 8, 10, 12 and 16 Circuit, Dual Row



Positive Lock

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

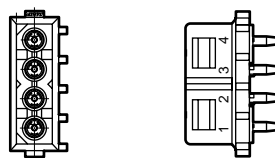
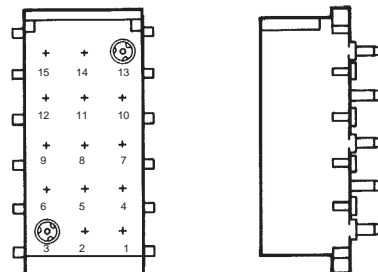
Commercial MATE-N-LOK Connectors**PC Board Vertical Socket Headers****Material**

Housing — Nylon, natural color

Flammability Rating — UL 94V-2

Contacts — Phosphor bronze

Solder Tail Diameter — .062 [1.57]

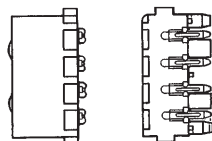
Pin and Socket Connectors (Continued)**4 Circuit, In-Line****12 Circuit, Matrix**

Number of Circuits	Finish	Part Numbers
		Standard Tail ²
4	Pre-tin	770997-1 ¹
12	Pre-tin	350643-1

¹Used by the disk drive industry.²Use standard tail for .062 [1.57] thick PC Board.**PC Board Right Angle Pin Headers****Material**

Contact — Phosphor bronze, Pre-tin

Solder Tail Diameter — .052 [1.32]

3 and 4 Circuit, In-Line

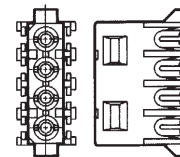
Number of Circuits	Housing Material	Part Numbers
3	UL 94V-0 Nylon	643488-1
4	UL 94V-2 Nylon, Natural Color	641737-1 ² 770846-1 ^{1,2}
	UL 94V-0 Nylon	1-641737-1 ²

¹Surface Mount Compatible.²Used by the disk drive industry.**Insulation Displacement Connectors (IDC) — 4 Circuit****Material**

Housing — UL 94V-2, Nylon

Contacts — Phosphor bronze with pre-tin plating or duplex plated .000030 [0.00076] min. gold in mating area over .000050 [0.00127] nickel underplate on entire contact

Wire Size Range AWG [mm ²]	Color Code	Finish	Part Number	
			UL 94V-2	UL 94V-0
22 [.3]	Red	Pre-tin	770156-2	—
20 [.5]	Yellow	Pre-tin	770156-4	—
18 [.8]	Orange	Pre-tin	770156-3	794036-1

**4 Circuit In-Line****Mating Connectors**

Commercial MATE-N-LOK —

Socket Housings on page 308

Commercial MATE-N-LOK —

Pin Housings on page 308

Commercial MATE-N-LOK —

Pin Headers on page 309

Dust Covers (Use with IDC Connectors above)**Material**

Housing — Polyester, UL 94V-2 white color

For Feed-To Wiring
Part Number 770232-1For Feed-Through Wiring
Part Number 770233-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

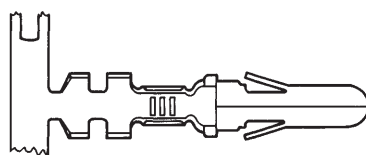
For Complete Product Information, Order Catalog 82181

.140 MATE-N-LOK Connectors, Large Insulation, .240 [6.1] Centerline

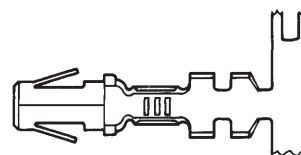
Contacts

Pin Diameter — .140 [3.57]
Stock Thickness — .014 [.357]

Pin and Socket Connectors (Continued)



Pin



Socket

Wire Size Range AWG [mm²]	Ins. Dia. Range	Material & Finish	Contact Part Numbers			
			Pin		Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
20-14 [.5-2.0]	.100-.180 2.54-4.5	Brass/Pre-tin	61627-1	350389-1	61626-1	350388-1
		Phos. Brz./Pre-tin	61627-2	—	61626-2	—
14-10 [2.0-5.0]	.100-.180 2.54-4.5	Brass/Pre-tin	350201-1	350391-1	350200-1	350390-1
		Phos. Brz./Pre-tin	350201-2	—	350200-2	—

Housings Free Hanging

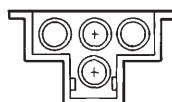
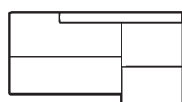
Centerline Spacing — .240 [6.09]

Material Housing

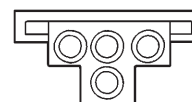
Nylon, natural color

Flammability Rating — UL 94V-2

4 Circuit

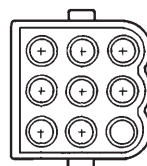
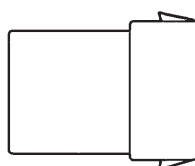


Pin Housing (Cap)
Part No. [1-480512-0](#)

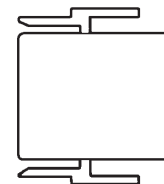
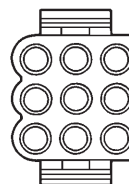


Socket Housing (Plug)
Part No. 1-480510-0

9 Circuit, Matrix



Pin Housing (Cap)
Part No. 1-480586-0



Socket Housing (Plug)
Part No. [1-480585-0](#)

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

.140 MATE-N-LOK Connectors, Large Insulation, .240 [6.1] Centerline

Housings Panel Mount

Centerline Spacing — .240 [6.09]

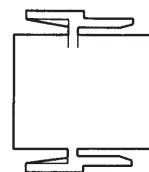
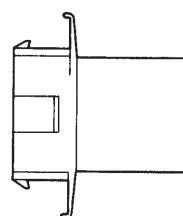
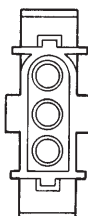
Material Housing

Nylon, natural color

Flammability Rating — UL 94V-2

Pin and Socket Connectors (Continued)

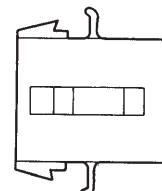
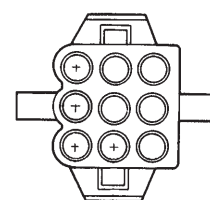
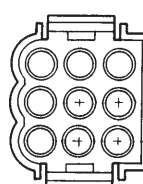
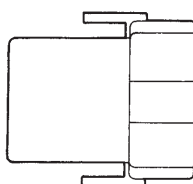
2 and 3 Circuit, In-Line



Pin Housing (Cap)

Socket Housing (Plug)

9 Circuit, Matrix



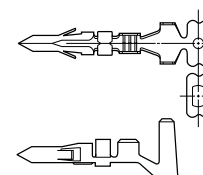
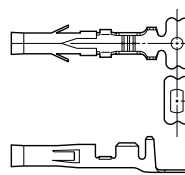
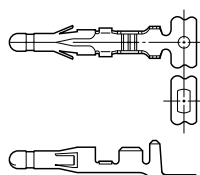
Pin Housing (Cap)

Socket Housing (Plug)

.093 [2.36] Commercial Pin and Socket Connectors

Contacts (Used in plug or
receptacle housings below)

Pin Diameter — .093 [2.36]
Stock Thickness — .010 [0.25]



Pin

Socket

Pin Part No. [770385-1](#)

Material and Finish

Brass or phosphor bronze with pre-tin
plating

Contact Insertion Tool



Part No. 91002-1
(For Pins and Sockets)

Wire Size Range AWG [mm ²]	Insulation Dia.	Material & Finish	Contact Part Numbers	
			Pin	Socket
24-18 0.2-0.9	.110 2.79	Brass/Pre-tin	—	350417-1
20-14 0.6-2	.140 3.56	Brass/Pre-tin	350416-1	350415-1
		Phos. Brz./Pre-tin	—	350415-6
	.180 4.57	Brass/Pre-tin	770530-1 ¹	770529-1 ¹
18-14 or 2 (18) 0.8-2 or 2 (0.8-0.9)	.180 4.57 (per wire)	Brass/Pre-tin	770385-1 ²	—

¹Contact length is .875 [22.23]

²Contact has .125 [3.18] stock thickness and accepts 2 wires, each with maximum .180 [4.57] insulation diameter.

Note: Phosphor bronze contacts should be used in high-temperature/humidity cycling applications.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

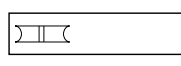
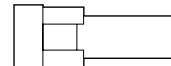
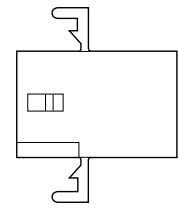
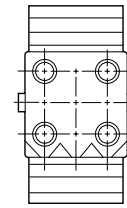
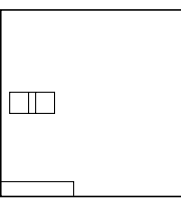
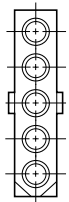
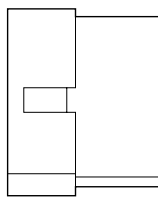
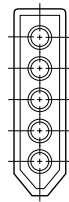
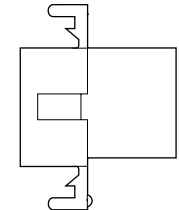
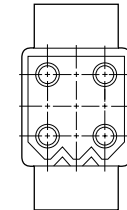
.093 [2.36] Commercial Pin and Socket Connectors**Pin and Socket Connectors (Continued)****Housings****Free Hanging or Panel Mount**

Centerline Spacing — .198 [5.03]

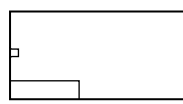
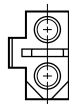
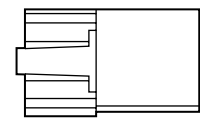
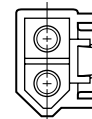
Contacts — Order separately (see above)

Material

Nylon, UL 94V-2, natural color

**1 Circuit Receptacle****1 Circuit Plug****4 Circuit Matrix Receptacle****2, 3, 4, 5 Circuit In-Line Receptacle****2, 3, 4, 5 Circuit In-Line Plug****4 Circuit Matrix Plug**

No. of Circuits	Configuration	Receptacle Part Numbers				Plug Part Numbers	
		Panel-Mount		Free-Hanging		Panel-Mount	Free-Hanging
		Without Detents	With Detents	Without Detents	With Detents		
1	—	—	—	—	770063-1	—	770064-1
2	—	—	770066-1 ^{1,3}	—	770065-1 ^{1,3}	770068-1 ¹	770069-1 ¹
3	—	—	770071-1	770339-1 ⁴	770070-1	770073-1	770074-1
4	In-Line	770329-1 ⁴	770076-1	770337-1 ⁴	770075-1	770330-1 ⁴	770078-1
4	Matrix	—	—	—	770843-1	—	770842-1
5	—	—	—	—	770083-1	—	770084-1
6	Matrix	770372-1 ⁴	770087-1	—	770086-1	770089-1	770090-1
9	—	—	770093-1	—	770092-1	770373-1 ⁴	770361-1 ⁴
12	—	—	770099-1	—	770098-1	770095-1 ²	770096-1
15	—	770103-1	—	770105-1	—	770101-1	770102-1
						—	770107-1

¹.248 [6.30] Centerline Spacing. ²Mounting ears at wire end. ³600V AC or DC. ⁴.250 [6.35] Centerline Spacing.**Positive Lock****2 and 3 Circuit, In-Line****Receptacle****Plug**

No. of Circuits	Receptacle Part Numbers	Plug Part Numbers
	Free-Hanging	Free-Hanging
2	770424-1 ¹	770425-1 ¹
3	770785-1	770783-1

¹.248 [6.3] centerline.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Mini-Universal MATE-N-LOK 2 Connectors

Contacts

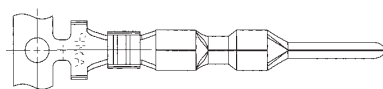
Pin Diameter — .039 [0.99]
Stock Thickness — .010 [0.25]

Material

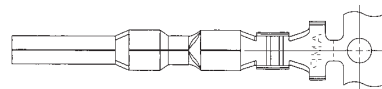
Brass

These contacts can be used in either Mini-Universal MATE-N-LOK 2 Plug or Cap housings only.

Pin and Socket Connectors (Continued)



Pin



Socket

Not to be used with Mini-Universal MATE-N-LOK Connectors

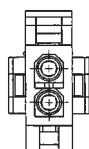
Wire Size Range AWG [mm²]	Ins. Dia. Range	Finish	Contact Part Numbers
			Socket Strip Form
26-22 [.12-.3]	.047-.069 1.19-1.75	Pre-tin	794219-1
		Duplex¹	794219-3
22-18 [.3-.8]	.059-.110 1.50-2.39	Duplex¹	794221-3

¹Duplex Finish — Plated with .000030 [.000762] min. gold in mating area and .000100 [.00254] min. tin-lead in crimping area over .000050 [.00127] min. nickel underplate on entire contact.

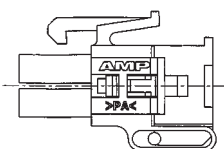
Housings Free Hanging

Centerline Spacing — .163 [4.14]

2 Circuit, In-Line

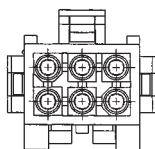


Plug

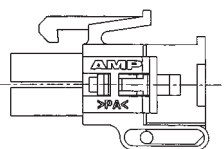


Cap

4 and 6 Circuit, Dual Row

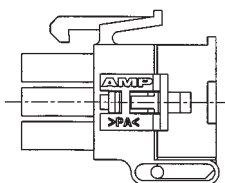


Plug

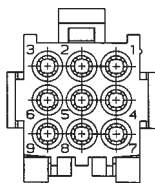


Cap

9, 12 and 15 Circuit, Matrix



Plug



Cap

Number of Circuits	Housing Part Numbers	
	UL 94V-0 Nylon, White Color	
	Plug	Cap
2	794184-1	794185-1
4	794188-1	—
6	794190-1	—
9	794194-1	794195-1
12	794200-1	—
15	794204-1	—

For Complete Product Information, Order Catalog 82181

Mini-Universal MATE-N-LOK 2 Connectors and Mini-Universal MATE-N-LOK Connectors

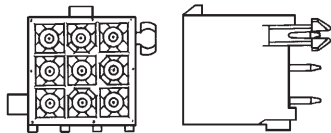
Vertical PC Board Pin Headers

Centerline Spacing — .163 [4.14]
Solder Tail Diameter — .039 [1.00]

Material

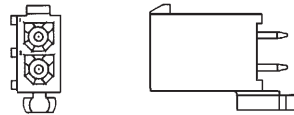
Housing — Nylon, white
Flammability Rating — UL 94V-0
Contacts — Brass

9, 12 and 15 Circuit, Matrix

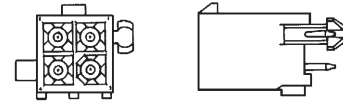


Pin and Socket Connectors (Continued)

2 and 3 Circuit, In-Line



4, 6, 8, 10 and 12 Circuit, Double Row



Number of Circuits	Style	Pin Finish	Vertical Pin Header Part Numbers		Mates with Plug Housing Part Number (Using Socket Contacts)	
			With Drain Holes	Without Drain Holes	Mini-UMNL	Mini-UMNL 2
2	In-Line	Tin-Lead ¹	770166-1	770872-1	172165-1	794184-1
3	In-Line	Tin-Lead ¹	770170-1	770873-1	172166-1	794186-1
4	Dual Row	Tin-Lead ¹	770174-1	770874-1	172167-1	794188-1
6	Dual Row	Tin-Lead ¹	770178-1	770875-1	172168-1	794190-1
8	Dual Row	Tin-Lead ¹	794065-1	794073-1	770579-1	794192-1
9	Matrix	Tin-Lead ¹	770182-1	—	172169-1	794194-1
10	Dual Row	Tin-Lead ¹	770743-1	—	770580-1	794196-1
12	Dual Row	Tin-Lead ¹	—	770621-1	770581-1	794198-1
	Matrix	Tin-Lead ¹	770186-1	—	172170-1	794200-1
15	Matrix	Tin-Lead ¹	770190-1	770859-1	172171-1	794204-1

¹Tin-Lead Finish — Plated with .000150 [.00381] min. tin-lead over .000050 [.00127] min. nickel underplate on entire contact.

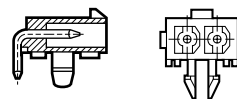
Right Angle PC Board Pin Headers With Board Lock Feature

Centerline Spacing — .163 [4.14]
Solder Tail Diameter — .039 [1.00]

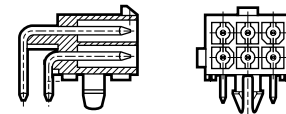
Material

Housing — Nylon, white
Flammability Rating — UL 94V-0
Contacts — Brass

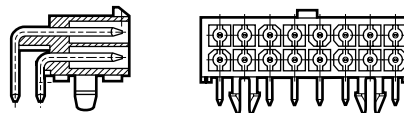
2 and 3 Circuit, In-Line



4, 6, 8 and 12 Circuit, Dual Row



14 and 16 Circuit, Dual Row



Number of Circuits	Style	Pin Finish	Pin Header Part Number with Board Lock	Mates with Plug Housing Part Number (Using Socket Contacts)	
				Mini-UMNL	Mini-UMNL 2
2	In-line	Tin-Lead ¹	770966-1	172165-1	794184-1
3	In-line	Tin-Lead ¹	770967-1	172166-1	794186-1
4	Dual Row	Tin-Lead ¹	770968-1	172167-1	794188-1
		Duplex ²	770968-2		
6	Dual Row	Tin-Lead ¹	770969-1	172168-1	794190-1
8	Dual Row	Tin-Lead ¹	770970-1	770579-1	794192-1
12	Dual Row	Tin-Lead ¹	770972-1	770581-1	794198-1
		Duplex ²	770972-2		
14	Dual Row	Tin-Lead ¹	770973-1	770582-1	794202-1
16	Dual Row	Tin-Lead ¹	770974-1	770583-1	794206-1

¹Tin-Lead Finish — Plated with .000150 [.00381] min. tin-lead over .000050 [.00127] min. nickel underplate on entire contact.

²Duplex Finish — Plated with .000030 [.000762] min. gold in mating area and matte tin-lead on solder tail end over .000050 [.00127] min. nickel underplate on entire contact.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Mini-Universal MATE-N-LOK Connectors

Contacts (Used in Mini-Universal MATE-N-LOK plug or cap housings below and on page 317)

Pin Diameter — .039 [0.99]
Stock Thickness — .008 [0.20]

Material and Finish

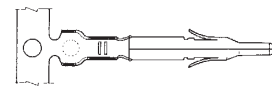
Brass or phosphor bronze with pre-tin plating or duplex plated .000030 [0.00076] min. gold in mating area and .000100 [0.00254] min. tin-lead in crimping area over .000050 [0.00127] nickel underplate on entire contact

Pin and Socket Connectors (Continued)

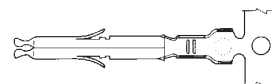
Wire Size Range AWG [mm ²]	Ins. Dia. Range	Finish	Contact Part Numbers			
			Pin		Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
30-26 [.05-.12]	.035-.050 .889-1.27	Pre-tin	—	—	770834-1	794058-1
26-22 [.12-.3]	.047-.069 1.19-1.75	Pre-tin	770901-1	770985-1	770902-1	770986-1
		Duplex ¹	770901-3	770985-3	770902-3	770986-3
22-18 [.3-.8]	.059-.110 1.50-2.39	Pre-tin	—	—	770904-1	770988-1
or 22 x (2) [.3]	.133 Max. 3.38	Duplex ¹	—	770987-3	770904-3	770988-3
20-16 [.5-1.2]	.079-.126 2.01-3.20	Pre-tin	171636-1 ²	171638-1 ²	171637-1 ²	171639-1 ²
or 20 x (2) [.5]	.094 x (2) 2.39	Duplex ¹	—	—	171637-3 ²	—

¹Duplex Finish — Plated with .000030 [0.000762] min. gold in mating area and .000100 [0.00254] min. tin-lead in crimping area over .000050 [0.00127] min. nickel underplate on entire contact.

².671 [17.04] and .659 [16.74] dimensions are .689 [17.50] for indicated part numbers.



Pin



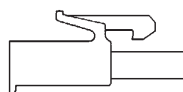
Socket

Housings

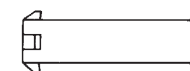
Free Hanging or Panel Mount

Centerline Spacing — .163 [4.14]

1 Circuit, Free Hanging

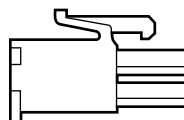


Plug



Cap

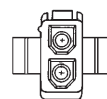
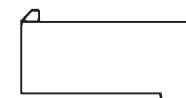
2 and 3 Circuit, In-Line



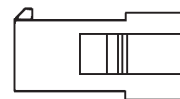
Plug



Cap (Free Hanging)



Cap (Panel Mount)



Number of Circuits	Housing Part Numbers					
	UL 94V-0 Nylon, White Color			UL 94V-2 Nylon, Natural Color		
	Plug	Cap		Plug	Cap	
		Panel Mount	Free Hanging		Panel Mount	Free Hanging
1	172164-1	—	—	—	—	—
2	172165-1	172157-1	172233-1	172336-1	172328-1	172343-1
3	172166-1	172158-1	172234-1	172337-1	172329-1	172344-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

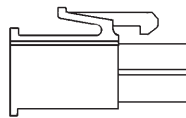
Mini-Universal
MATE-N-LOK Connectors

Housings (Continued)

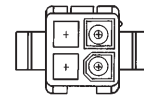
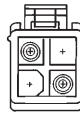
Centerline Spacing — .163 [4.14]

Pin and Socket Connectors (Continued)

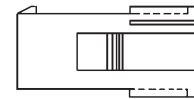
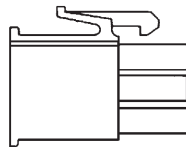
4 and 6 Circuit, Dual Row



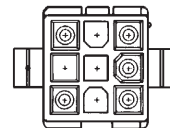
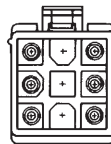
Plug



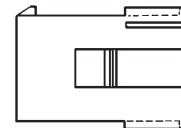
Cap

9, 12 and 15 Circuit,
Free Hanging or Panel Mount, Matrix

Plug

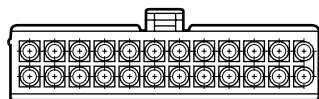


Cap

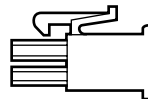


Number of Circuits	Housing Part Numbers ¹			
	UL 94V-0 Nylon, White Color		UL 94V-2 Nylon, Natural Color	
	Plug	Cap	Plug	Cap
4	172167-1	172159-1	172338-1	172330-1
6	172168-1	172160-1	172339-1	172331-1
9	172169-1	172161-1	172340-1	172332-1
12	172170-1	172162-1	172341-1	172333-1
15	172171-1	172163-1	172342-1	172334-1

¹Housing part numbers shown in table are all natural color. Other colors, red, green, blue, black, are also available. To order connectors in these colors use the appropriate dash numbers as follows: Red 1-XXXXXX-2, Green 1-XXXXXX-5, Blue 1-XXXXXX-6, Black 1-XXXXXX-9

8 thru 24 Circuit,
Free Hanging, Dual Row

Plug



Number of Circuits	UL 94V-0 Nylon, White Color
	Plug Part Number
8	770579-1
10	770580-1
12	770581-1
14	770582-1
16	770583-1
18	770584-1
20	770585-1
22	770586-1
24	770587-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

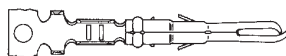
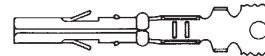
(MR) Miniature Rectangular Connectors

Contacts (Used in (MR) Miniature Rectangular plug or cap housings on page 319)

Pin Diameter — .068 [1.73]
Stock Thickness — .008 [0.20]

Material and Finish

Brass or phosphor bronze with pre-tin plating or selectively plated .000030 [0.00076] min. gold in mating area over .000050 [0.00127] nickel underplate on entire contact

Pin and Socket Connectors (Continued)**Live Split Pin****Standard Socket**

Wire Size Range AWG [mm²]	Ins. Dia. Range	Finish	Contact Part Numbers			
			Live Split Pin		Standard Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
26-24 [.12-.2]	.025-.050 .635-1.27	Pre-tin	—	640579-1	—	794001-1
		Select Gold ¹	350968-2	640579-2	794000-2	794001-2
26-18 ² [.12-.8]	.050-.115 1.27-2.92	Pre-tin	350967-1	640545-1	641294-1	641300-1
		Select Gold ¹	350967-2	640545-2	641294-2	641300-2

¹Select Gold Finish — Plated with .000030 min. [0.000762] gold in mating area over .000050 [0.00127] min. nickel underplate on entire contact.

²1650 CMA maximum.

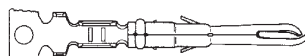
Grounding Pin

(Mate first, break last, not for interrupting current)

Pin Diameter — .068 [1.73]
Stock Thickness — .008 [0.203]

Material

Phosphor bronze



Wire Size Range AWG [mm²]	Ins. Dia. Range	Finish	Pin Part Number
			Loose Form
26-18 ² [.12-.8]	.050-.115 1.27-2.92	Select Gold ¹	640580-2

¹Select Gold Finish — Plated with .00030 [0.00762] min. gold in mating area over .000050 [0.00127] min. nickel underplate on entire contact.

²1650 CMA maximum

Solder Tail Socket

Stock Thickness — .008 [0.203]

**Material & Finish**

Phosphor bronze, pre-tin

Part Number 350838-1

Note: Recommended for use with MR Socket Housings

Keying Plug

Part Number 350591-1

UL94V-0 Nylon material

Note: Use in socket housings only.

For Complete Product Information, Order Catalog 82181

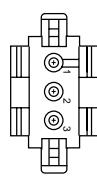
(MR) Miniature Rectangular Connectors**Housings**

Free Hanging or Panel Mount

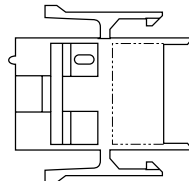
Centerline Spacing — .165 [4.19]
 Contacts — Order separately (see page 318)

Material

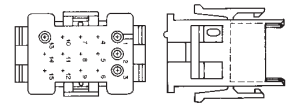
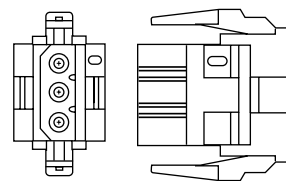
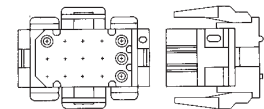
Nylon, UL 94V-0, natural color-brick red

Pin and Socket Connectors (Continued)

2, 3 Circuit In-Line Cap



2, 3 Circuit In-Line Plug

4, 6, 9, 15, 20, 24 and 36
Circuit Matrix Cap4, 6, 9, 15, 20, 24 and 36
Circuit Matrix Plug

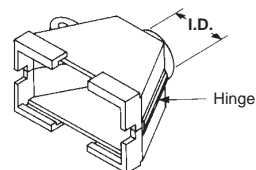
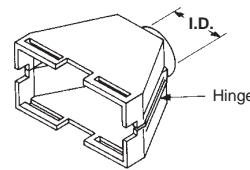
No. of Circuits	Part Numbers	
	Pin Housing (Cap)	Socket Housing (Plug)
2	1-640507-0	1-640517-0
3	1-640508-0	1-640518-0
4	1-640509-0	1-640519-0
6	1-640510-0	1-640520-0
9	1-640511-0	1-640521-0
12	1-640512-0	1-640522-0
15	1-640513-0	1-640523-0
20	1-640514-0	1-640524-0
24	1-640515-0	1-640525-0
36	1-640516-0	1-640526-0

Strain Reliefs**One Piece — Clam Shell**

(Illustrated in closed position)

Material

Nylon, natural color-brick red

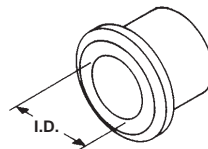
Flammability Rating — UL 94V-0**6, 9, 12, 15 and 20 Circuit****24 and 36 Circuit****Notes:**

- These strain reliefs can be used with either pin or socket housings.
- Customer supplied:** One No. 6 Panhead Type B self-taping screw, 3/8 long. Plating is optional to conform to customer requirements.
- Strain reliefs are also available in UL94V-2 nylon, black in color. To order strain reliefs in this material use the appropriate dash numbers. 1-XXXXXX-9.

Number of Circuits	I.D.	Part Numbers
6	.374 9.50	350373-1
9	.420 10.67	350522-1
12	.420 10.67	350374-1
15	.420 10.67	350523-1
20	.560 14.22	480634-1
24	.560 14.22	350524-1
36	.560 14.22	480594-1

Strain Relief**Adapting Grommet****Material**

Flexible PVC (55/75 Durometer) black color



Number of Circuits	I.D.	Part Numbers
6	.156 3.96	1-350377-0
	.218 5.54	1-350376-0
	.296 7.52	1-350375-0
9, 12 & 15	.218 5.54	1-350378-1
	.250 6.35	1-350379-1
	.281 7.14	1-350380-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

**(MR) Miniature
Rectangular Connectors****PC Board Vertical
Pin Headers**

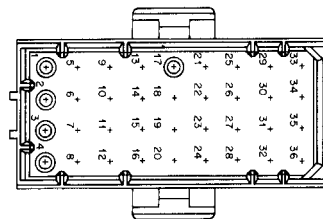
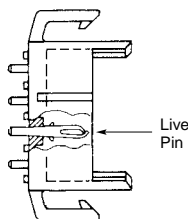
Centerline Spacing — .165 [4.19]
Solder Tail Diameter — .040 [1.02]

Material

Housing — Nylon, natural color-brick
red

Flammability Rating — UL 94V-0

Contacts — Phosphor bronze

Pin and Socket Connectors (Continued)**20, 24 and 36 Circuit, Matrix**

Number of Circuits	Board Thickness	Part Numbers		Mates with Socket Housing Part No.
		Tin Finish Contacts	Duplex Finish Contacts ¹	
2	.062 1.57	640497-1	640497-2	1-640517-0
	.120 3.05	640497-3	640497-4	
3	.062 1.57	640498-1	640498-2	1-640518-0
	.120 3.05	—	640498-4	
4	.062 1.57	640499-1	640499-2	1-640519-0
	.120 3.05	640499-3	640499-4	
6	.062 1.57	640500-1	640500-2	1-640520-0
	.120 3.05	—	640500-4	
9	.062 1.57	640501-1	640501-2	1-640521-0
	.120 3.05	640501-3	640501-4	
12	.062 1.57	640502-1	640502-2	1-640522-0
	.120 3.05	640502-3	—	
15	.062 1.57	640503-1	640503-2	1-640523-0
	.120 3.05	640503-3	640503-4	
20	.062 1.57	640504-1	640504-2	1-640524-0
	.120 3.05	—	640504-4	
24	.062 1.57	640505-1	640505-2	1-640525-0
	.120 3.05	—	640505-4	
36	.062 1.57	640506-1	640506-2	1-640526-0
	.120 3.05	—	640506-4	

¹Duplex Finish—Plated with .000030 [.000762] min. gold in mating area, matte tin on solder tail end over .000050 [.00127] min. nickel underplate on entire contact.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

.062 [1.57] Commercial Pin & Socket Connectors

Contacts (Used in .062 [1.57] Commercial plug or receptacle housings below)

Pin Diameter — .062 [1.57]
Stock Thickness — .008 [0.20]

Material and Finish

Brass or phosphor bronze with pre-tin plating or selectively plated .000030 [0.00076] min. gold in mating area over .000050 [0.00127] nickel underplate on entire contact

Pin and Socket Connectors (Continued)

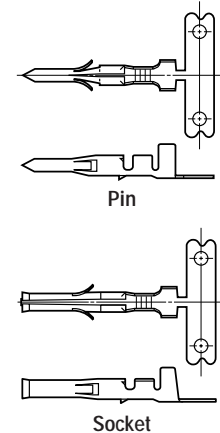
Wire Size AWG [mm ²]	Ins. Dia.	Material & Finish	Contact Part Numbers			
			Pin		Socket	
			Strip Form	Loose Form	Strip Form	Loose Form
30-24 0.05-0.2	.060 1.52 Max.	Brass/ Pre-tin	—	—	640392-1	794019-1
			—	—	794046-1 ²	—
24-18 0.2-0.9	.050-.110 1.27-2.79	Brass/ Pre-tin	350629-1	794017-1	350628-1	—
			770983-1 ³	—	794380-1 ³	—
		Brass/ Sel. Gold ¹	350629-5 ¹	—	350628-5 ¹	—

¹Select Gold — .000030 min. in mating area over .000050 nickel.

²Lanceless Socket for Overmolding.

³Contact Retention 15 lbs. min.

Note: Phosphor bronze contacts should be used in high-temperature/humidity cycling applications.

**Contact Insertion Tool**

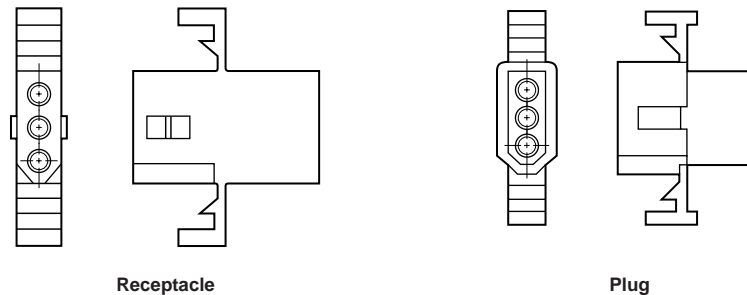
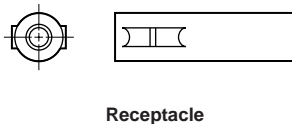
Part No. 91002-1

**Housings**
Free Hanging or Panel Mount

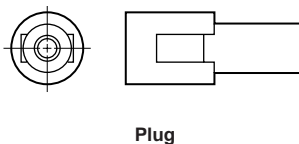
Centerline Spacing — .145 [3.68]
Contacts — Order separately (see above)

Material

Nylon, UL 94V-0, natural color

2, 3, and 4 Circuit, In-Line**1 Circuit**

Receptacle



Plug

No. of Circuits	Receptacle Part Numbers		Plug Part Numbers	
	Panel Mount	Free Hanging	Panel Mount	Free Hanging
1	—	—	—	770278-1
2	770343-1	770342-1 770419-1 ¹	770341-1	770340-1
3	770326-1	770333-1	770332-1	770331-1
4 (In-Line)	770335-1	770274-1	—	770275-1
4 (Matrix)	—	770442-1	770443-1	770433-1
6	770354-1	770356-1	—	770355-1
9	—	770429-1	—	770428-1

¹Positive Lock

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82181

Multimate Contacts

Signal Contacts — Type II,
Crimp

Material and Finish

Contact Body — Brass, plated
 .000030 [0.00076] gold over .000050
 [0.00127] nickel

Retention Spring — Stainless steel

Pin and Socket Connectors (Continued)



Pin



Socket

Contact Size 16 — Pin Diameter .062 [1.57] (Test Current, 13 Amperes)

Wire Size Range AWG [mm ²]	Insulation Dia. Range	Tape Mounted Contact No.		Loose Piece Contact No.		Contact Color Code
		Pin	Socket	Pin	Socket	
28-24 [0.08-0.20]	.035-.055 0.89-1.40	—	—	201611-1	201613-1	Red/Red
		—	—	—	—	Red/Red
24-20 [0.2-0.6]	.040-0.62 1.02-1.57	—	—	201578-1	201580-1	Yellow/Red
		201330-6	—	201330-1	201328-1	Yellow/Red
18 [0.9-0.9] (Two)	No. Ins. Support	—	—	202725-1	—	Blue
18-16 [0.8-1.4]	.080-.105 2.03-2.67	—	—	202507-1	202508-1	—
		—	200333-8	200336-1	200333-1	Blue/Blue
14 [2]	No Ins. Support	—	—	204219-1	—	Blue/Blue
		—	—	201570-1	201568-1	Violet/Blue
		—	—	212618-1	—	—

Signal Contacts — Type III+
Crimp Snap-In

Material and Finish

Contact Body — Brass (see chart at
 right for plating)

Retention Spring — Stainless steel



Pin



Socket

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Contact Finish	Part Numbers			
			Strip Form		Loose Form	
			Pin	Socket	Pin	Socket
30-26 [0.05-0.15]	.040-.060 1.02-1.52	Bright Tin-Lead	66425-6	—	—	—
		Gold/Nickel ¹	66425-7	—	66429-3	66428-3
		Sel. Gold/Nickel ²	66425-8	66424-8	66429-4	66428-4
		Gold/Nickel ¹	66393-7	—	—	—
26-24 [0.12-0.2]	.014-.030 0.36-0.76	Sel. Gold/Nickel ²	66393-8	66394-8	66406-4	66405-4
		Bright Tin-Lead	66106-6	66108-6	66107-2	66109-2
		Gold/Nickel ¹	66106-7	66108-7	66107-3	66109-3
		Sel. Gold/Nickel ²	66106-8	66108-8	66107-4	66109-4
24-20 [0.2-0.6]	.035-.055 0.89-1.40	Bright Tin-Lead	66102-7	66104-7	66103-2	66105-2
		Gold/Nickel ¹	66102-8	66104-8	66103-3	66105-3
		Sel. Gold/Nickel ²	66102-9	66104-9	66103-4	66105-4
		Bright Tin-Lead	66564-6	66563-6	66566-2	66565-2
24-20 [0.2-0.6]	.060-.120 1.52-3.05	Sel. Gold/Nickel ²	66564-8	66563-8	66566-4	66565-4
		Bright Tin-Lead	66332-5	66331-5	66400-1	66399-1
		Gold/Nickel ¹	66332-7	66331-7	66400-3	66399-3
		Sel. Gold/Nickel ²	66332-8	66331-8	66400-4	66399-4
18-16 [0.8-2.0]	.080-.100 2.03-2.54	Bright Tin-Lead	66098-7	66100-7	66099-2	66101-2
		Gold/Nickel ¹	66098-8	66100-8	66099-3	66101-3
		Sel. Gold/Nickel ²	66098-9	66100-9	66099-4	66101-4
		Bright Tin-Lead	66359-6	66358-6	66361-2	66360-2
18-14 [0.8-2.0]	.040-.080 1.02-2.03	Gold/Nickel ¹	66359-9	66358-9	66361-3	66360-3
		Sel. Gold/Nickel ²	1-66359-0	1-66358-0	66361-4	66360-4
		Bright Tin-Lead	66597-1	66598-1	66602-1	66601-1
		Sel. Gold/Nickel ²	66597-2	66598-2	66602-2	66601-2
18-14 [0.8-2.0]	.080-.100 2.03-2.54	Bright Tin-Lead	66597-1	66598-1	66602-1	66601-1
		Sel. Gold/Nickel ²	66597-2	66598-2	66602-2	66601-2

Finish:

¹.000015 [0.00038] gold in mating area over .000050 [0.00127] nickel

².000030 [0.00076] gold in mating area over .000050 [0.00127] nickel

For Complete Product Information, Order Catalog 82003

Multimate Contacts

Pin and Socket Connectors (Continued)

Posted Contacts

(Replacement contacts for all posted connectors)

Material and Finish

Contact Body — Brass (see chart below for plating)

Retention Spring — Stainless steel



Pin



Socket

Contact Size 16 — Pin Diameter .062 [1.57] (Test Current, 13 Amperes)

Termination Method	Post Configuration	Contact Finish	Loose Piece Contact No.					
			3 Termination High Post		2 Termination High Post		1 Termination High Post	
			Pin	Socket	Pin	Socket	Pin	Socket
Wrap-Type	.025 x .025 0.64 x 0.64	Sel. Gold/Nickel ¹	66460-9	66461-9	66460-8	66461-8	66460-7	66461-7
		Gold/Nickel ²	66460-6	66461-6	66460-5	66461-5	66460-4	66461-4
		Bright Tin-Lead	66460-3	66461-3	66460-2	66461-2	66460-1	66461-1
	.045 x .045 1.14 x 1.14	Sel. Gold/Nickel ¹	66471-9	66473-9	—	—	66471-7	66473-7
		Bright Tin-Lead	66471-3	66473-3	—	—	66471-1	66473-1
	.031 x .062 0.79 x 1.57	Sel. Gold/Nickel ¹	66470-9	66472-9	—	—	66470-7	—
TERMI-POINT Clip	.031 x .062 0.79 x 1.57	Sel. Gold/Nickel ¹	66468-9	66459-9	—	—	—	—

Finish:

¹Gold flash over .000050 [0.00127] nickel on entire contact, with .000030 [0.00076] gold to a distance of .200 [5.08] from mating end. Gold thickness controlled on socket O.D.

².000030 [0.00076] gold over .000050 [0.00127] nickel on contact body. Gold thickness controlled on socket O.D.
Posts plated tin-lead over copper.

Signal Contacts — Type III+ Solder Version

Material and Finish

Contact Body and Tab — Brass (see chart at right for plating)

Retention Spring — Stainless steel



Pin – Crimp Style



Socket – Crimp Style



Pin – Solder Tab Style

Contact Size 16 — Pin Diameter .062 [1.57] (Test Current, 13 Amperes)

Contact Style	Wire Size Range AWG [mm ²]	Contact Finish	Part Numbers — Loose Form	
			Pin	Socket
Crimp	26-20 0.12-0.6	Gold/Nickel ¹	66182-1	66183-1
	18-16 0.8-1.4	Gold/Nickel ¹	66180-1	66181-1
Solder Tab	—	Duplex ²	202236-1	202237-1
		Bright Tin-Lead ³	202236-2	202237-2



Socket – Solder Tab Style

Finish:

¹.000030 [0.00076] gold in mating area over .000050 [0.00127] nickel.

²Duplex plated .000030 [0.00076] gold in mating area over .000050 [0.00127] nickel on contact body; bright tin-lead on solder tab.

³Bright tin-lead on entire contact.

Multimate Contacts can be used with M Series, CPC and Metrimate Connectors

Type III+ Contacts

Material

Contact Body — Brass

Retention Spring — Stainless steel

Contact Finish Code	Wire Size AWG [mm ²]	Part Numbers — Strip Form
		Pin
Tin	18-14 0.8-2	213603-1

For Complete Product Information, Order Catalog 82003

Multimate Contacts

Type XII High Current Contacts

Material

Pin Body — Lead Brass
 Socket Body — Copper Alloy
 Louvertac Band — Beryllium Copper
 Retention Spring — Stainless Steel

Finish

Body — Silver
 Louvertac Band — Gold

Pin and Socket Connectors (Continued)

High Current
 Type XII
 Part No. 193990-2



High Current
 Type XII Pin
 Part No. 193991-4



High Current
 Size 16 Socket
 Part No. 193846-1



High Current
 Size 16 Pin
 Part No. 193844-1



Type I, Crimp

Material

Contact Body — Bronze
 Retention Spring — Beryllium
 Copper

Finish

Contact Body — .000030 [0.00076]
 gold over .000050 [0.00127] nickel.
 Gold thickness controlled on socket O.D.
 Retention Spring — Nickel plated



Pin

Socket

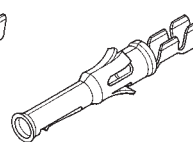
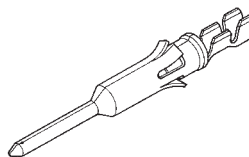
Size 12 — Pin Diameter .094 [2.39] (Test Current, 23 Amperes)

Wire Size Range AWG [mm ²]	Loose Form	
	Pin	Socket
18-16 0.8-1.4	—	202418-1
14-12 2-3	202422-1	202417-1

"G" Series Modular
 Connectors
 Type VI Contacts

Material

Copper Alloy
 Contact Size — 16
 Pin Diameter — .062 [1.57]
 Test Current — 13 amperes



Pin

Socket

Wire Size Range AWG [mm ²]	Ins. Dia. Range	Contact Finish	Contact Part Nos. (reeled for AMP) Quick-Change Applicator		Loose Piece Contact Part Nos.	
			Pin	Socket	Pin	Socket
28-26 0.08-0.15	.035-.055 0.89-1.4	Gold/Nickel ³	—	66586-4	—	—
24-20 0.2-0.6	.040-.080 1.02-2.03	Tin	66583-2	66584-2	66593-1	66594-1
		Gold/Nickel ³	66583-4	66584-4	66593-2	66594-2
22-18 0.3-0.9	.055-.110 1.40-2.79	Tin	66581-2	66582-2	66591-1	66592-1
		Gold/Nickel ³	66581-4	66582-4	66591-2	66592-2
18-16 0.8-1.4	.080-.100 2.03-2.54	Tin	66579-2	66580-2	66589-1	66590-1
		Gold/Nickel ³	66579-4	66580-4	66589-2	66590-2
14 2	.080-.135 ² 2.03-3.43	Tin	66577-2	—	—	—

¹Wire strip length — .156 [3.96] (all wire sizes).

²Maximum insulation diameter recommended for "G" Series connectors with Multimate contact cavities is .110 [2.79].

³Gold flash over .000050 [0.00127] nickel on entire contact with .000030 [0.00076] selective gold plating on contact area.

For Complete Product Information, Order Catalogs 65141 and 82046

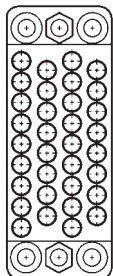
M Series Connectors

Standard Housings

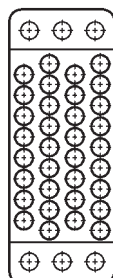
Material

(see chart)

34 Position



Plug Housing

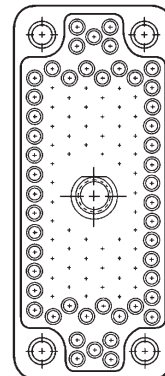
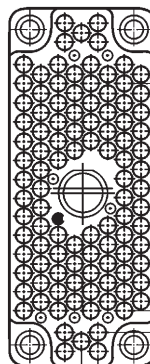


Receptacle Housing

Pin and Socket Connectors (Continued)

104 CF Position (with Center Fastener)

Plug Housing



Receptacle Housing

No. of Pos.	Plug		Receptacle	
	Material	Part Number	Material	Part Number
6	Phenolic	202758-1	Phenolic	202757-1
14	Phenolic	201355-1	Phenolic	201298-1
20	—	—	Phenolic	200346-2
26	Phenolic	201359-1	Phenolic	200512-2
	—	—	Diallyl Phthalate	200512-3
34	Phenolic	1-201357-1	Phenolic	200838-2
41	—	—	Polyester	213802-1
	—	—	Phenolic	201302-1
50	Phenolic	201358-1	Phenolic	200277-2
	Diallyl Phthalate	201358-3	Diallyl Phthalate	200277-4
75	Phenolic	201310-1	Phenolic	201311-1
104	Phenolic	201345-1	—	—
104 CF ¹	Phenolic	201692-4	Phenolic	201532-4
(with Center Fasteners)	Diallyl Phthalate	201692-3	Diallyl Phthalate	201532-2
160 CF	Phenolic	202799-2	Phenolic	202800-2
(with Center Fasteners)	Diallyl Phthalate	202799-1	Diallyl Phthalate	202800-1

¹"T" Handle**Notes:** 1. All housings accept Type II, Type III+, and Subminiature COAXICON contacts.

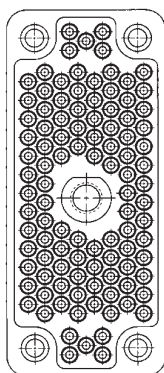
2. Pins and/or sockets may be used in any housing.

Posted Connectors

Material

(see chart)

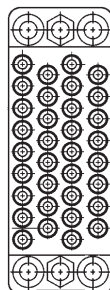
104 CF Position (with Center Fastener)



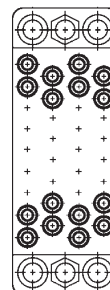
Receptacle Assembly

34 Position

Plug Assembly



Receptacle Assembly



Plug and Receptacle Assemblies

No. of Pos.	Termination Method	Post Configuration	Contact Finish	Plug Assembly Part No.	Receptacle Assembly Part No.
34	Wrap Type	.025 x .025 0.64 x 0.64	Sel. Gold/Nickel ¹	205361-1	205505-1
104 CF (with Center Fastener)	Wrap Type	.025 x .025 0.64 x 0.64	Sel. Gold/Nickel ¹	—	205720-1

¹Gold flash over .000050 [0.00127] nickel on entire contact, with .000030 [0.00076] gold to a distance of .200 [5.08] from mating end. Posts are plated tin-lead over copper.**Notes:** 1. Posted connectors listed above have black phenolic housings.

2. These posted connectors and Socket assembly will mate with standard connector housings.

For Complete Product Information, Order Catalog 82003

M Series Connectors

V.35 Printed Circuit Connectors

Material

Housing — Flame retardant phenolic or polyester, black color

Contacts — Brass, plated .000030 [0.00076] min. gold in mating area, .000050 [0.00127] min. nickel underplate on entire contact

Contact Spring — Stainless steel

Contact Post — Brass, plated tin-lead

Boardlocks — Copper alloy, plated tin-lead

Jackscrews — Stainless steel

Nuts & Lockwashers — Steel, plated zinc

Pin and Socket Connectors (Continued)

No. of Pos.	Right Angle			Vertical		
	Mounting Bracket	Housing Material	Part Number	Mounting Hardware	Housing Material	Part Number
34	Brass, Tin-Nickel Pl.	Phenolic	212810-2	None	Phenolic	213473-1
		Polyester	213806-1			
	Zinc Nickel Pl.	Polyester	213807-1	Spacers	Phenolic	213524-1
17	Zinc, Nickel Pl.	Phenolic	213574-4	—	—	—



Right Angle Receptacle Shown

Cable Connector Kits

Material

Housing — Flame retardant phenolic, black color

Shield — Anodized aluminum

Jackscrews — Stainless steel

Screws — Steel, plated zinc

Cable Clamp — Steel, plated nickel

Kits Include:

- Housing
- One-piece shield
- Jackscrews
- Strain relief clamp
- Mounting screws

Material

Housing — Flame retardant phenolic or polyester, black color

Shield — Zinc, plated nickel

Jackscrews — Zinc, plated nickel

Screws — Steel, plated zinc

Cable Clamp — Steel, plated nickel

Kits Include:

- Housing
- One-piece shield
- Jackscrews
- 2 cable clamp inserts
- Mounting screws

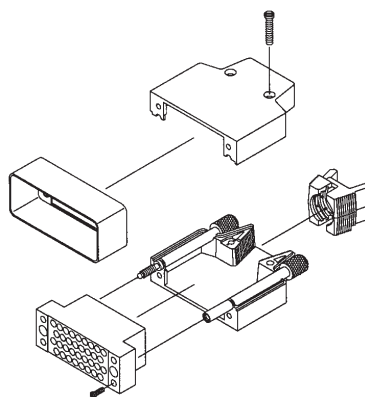
Packaging	Shield Size ¹	Housing Material	Cable Range	Part Numbers	
				Receptacle	Plug
—	Short	Phenolic	.435-.545 11.05-13.83	213522-1	213300-1
—	Short	Phenolic	.300-.450 7.62-11.43	213522-2	213300-2
Individual	—	Polyester	.435-.545 11.05-13.83	213931-3	213932-3
Individual	—	Polyester	.300-.450 7.62-11.43	213931-5	213932-4

¹Long shields are available.

Note: All housings accept Size 16, Type III+ contacts on page 322.



Receptacle Shown



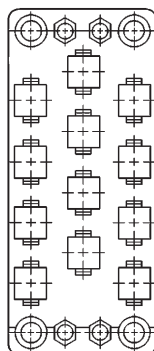
Material	Cable Range	Part Numbers	
		Receptacle	Plug
Phenolic	.400-.600 10.16-15.24	213685-1	213684-1
Phenolic	.250-.400 6.35-10.16	213685-2	213684-4
Polyester	.250-.400 6.35-10.16	213805-2	213803-2

Special Application Connectors

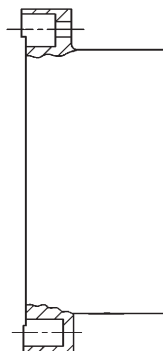
High Voltage 12 Position U.L. Voltage Rating 1800V

Material and Finish

Housing — Phenolic, 94V-0 rated, black



Plug Housing Shown

Plug Housing
Part Number 205042-1

Note: 12 position connector uses Standard 75 Position Hardware.

For Complete Product Information, Order Catalog 82003

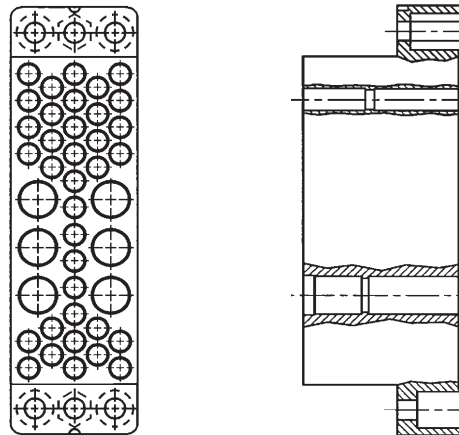
M Series Connectors

Pin and Socket Connectors (Continued)

Special Application Connectors Mixed 42 Position

Material and Finish

Housing — Phenolic, black or diallyl phthalate, blue, 94V-0 rated



Plug Housing Shown

**Phenolic
Plug Housing**
Part Number 202515-1
Receptacle Housing
Part Number 202516-1

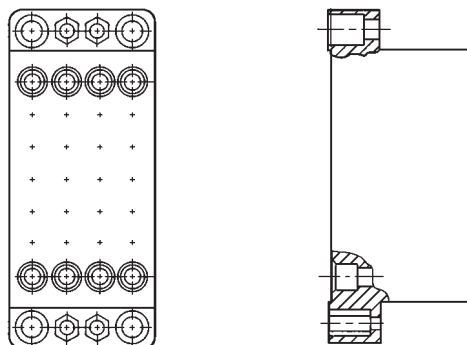
**Diallyl Phthalate
Receptacle Housing**
Part Number 202516-3

Note: 42 position connector uses Standard 50 Position Hardware.

High Voltage 28 Position U.L. Voltage Rating 1800V

Material

Housing — Phenolic, 94V-0 rated, black



Plug Housing Shown

Plug Housing
Part Number 205689-2

Receptacle Housing
Part Number 205690-2

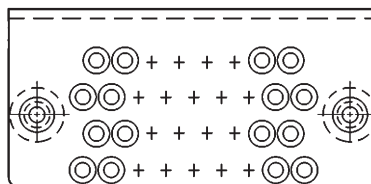
Notes:

1. All housings accept Type II (page 322) Type III+ (pages 322 and 323), and Subminiature COAXICON contacts.
2. Housings may be loaded with all the same contacts or a combination of those listed above.

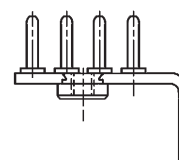
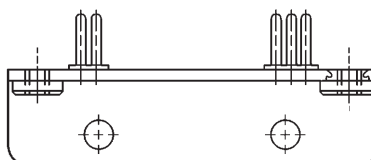
Grounding Blocks

Material and Finish

Plate — Brass, tin-plated
Clinch Nuts — Stainless steel
Pin Contacts — Phosphor bronze, gold over nickel plated



34 Position Shown



14 Position
Part Number 203540-1

34 Position
Part Number 204814-1

Grounding blocks mate with standard 14 and 34 position receptacle housings.

Note: Use referenced turnable jackscrews on mating housings when mating to grounding blocks.

For Complete Product Information, Order Catalog 82003

M Series Connectors

Fastening Hardware
Turnable Jackscrews

Material and Finish

Turnable Jackscrew Body — Die
cast zinc, chromate conversion coatingTurnable Jackscrew Tip —
Stainless steel

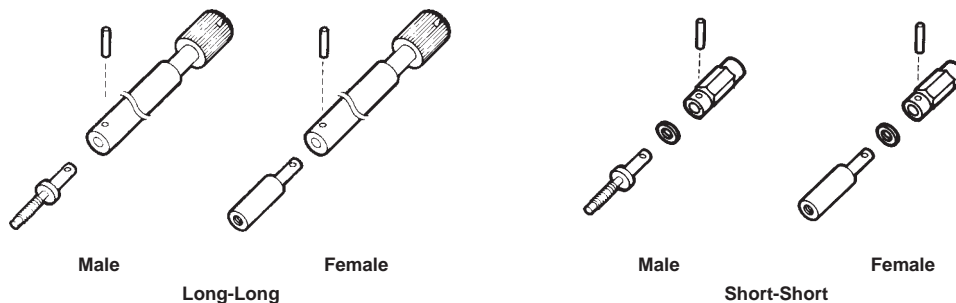
Roll Pin — Stainless steel

For Fixed Jackscrews

Lockwasher — Steel

Hex Nut — Steel, zinc plated

Pin and Socket Connectors (Continued)



Style	Jackscrew Part No.		Connectors Used on (No. of Positions)				
	6-32 [M3.5 x 0.6] Double Lead Thread	6-32 [M3.5 x 0.6] Single Lead Thread	Standard	Posted	Special Application		
					High Current	Mixed	High Voltage
Long-Long Male ¹	201911-1	—	50 (90° shield only), 75 and 104	—	12	42	28
Long-Long Female ¹	201910-1	—					
Long Male	200871-1	201413-1	20, 26, 34, 41, and 50	20, 26, 34, 41, and 50	12	15, 16 and 42	20 and 28
Long Female	200867-1	201414-1					
Short Male	200868-1	201087-1	6, 14, 20, 26, 34, 41, 50, 75 and 104	6, 14, 20, 26, 34, 34, 41, 50, 75 and 104	12	15, 16 and 42	20 and 28
Short Female	200870-1	201088-1					
Short-Short Male	201388-1	201827-1	6, 14, 20, 26, 34, 41, 50, 75 and 104	6, 14, 20, 26, 34, 34, 41, 50, 75 and 104	12	15, 16 and 42	20 and 28
Short-Short Female	201389-1	201828-1					

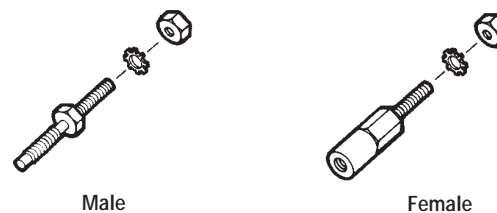
¹Long-Long Turnable Jackscrews are used only with Two-Piece Shields on the connector sizes listed.**Notes:** 1. Turnable Jackscrews mate with any Fixed Jackscrew listed below having the same thread size.

2. Special Turnable Jackscrews for use in connector housings to mate with Grounding Blocks are available.

3. Single-lead versions are designed to mate with competitive Jackscrews.

Roll pins for turnable jackscrews, Long-Long, Long, Short Part No. 201501-1, Short-Short Part No. 201501-2.Fixed Jackscrews
(6-32 [M3.5 x 0.6])

Type	Part Numbers	
	Double Lead Thread	Single Lead Thread
Male	200874-1	201092-1
Female	200875-1	201089-1

Notes:1. Fixed jackscrews mate with any
turnable jackscrew having the same
thread size.2. Single lead versions are designed
to mate with competitive jackscrews.

For Complete Product Information, Order Catalog 82003

M Series Connectors

Locking Springs

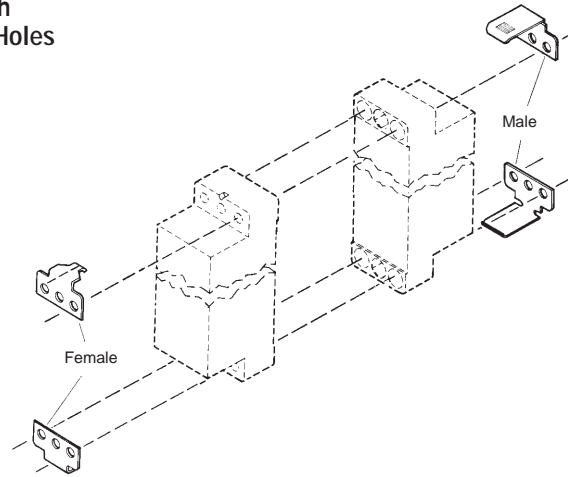
Material and Finish

Male (Spring Member) — Spring steel, nickel plated

Female (Latching Member) — Stainless steel

Pin and Socket Connectors (Continued)

For Housings with Three Mounting Holes



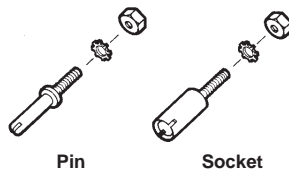
Locking Spring Part No.		Connectors Used On (No. of Positions)				
Male (Spring Member)	Female (Latching Member)	Standard	Posted	Special Application		
				High Current	Mixed	High Voltage
201921-1	201922-1	6, 14, 20 and 41	6, 14, 20 and 41	—	—	—
201925-1	201926-1	34 and 50	34 and 50	—	16 and 42	20

Guiding Hardware — Guide Pins and Sockets

Material and Finish

Lockwashers — Stainless steel

Hex Nuts — Steel, plated zinc



Pin

Socket

Center Guide Shown

Guide Pin and Socket		Connectors Used On (No. of Positions)				
Type	Part No.	Standard	Posted	Special Application		
				High Current	Mixed	High Voltage
Center Pin	200389-2	6, 14, 20, 26, 34, 41, 50, 75 and 104	6, 14, 20, 26, 34, 41, 50, 75 and 104	12	15, 16 and 42	20 and 28
Center Socket	200390-2					
Corner Pin	200833-2	34 and 50	34 and 50	—	16 and 42	20
Corner Socket	200835-2					
Corner Pin	201046-2	75, 104 and 160 CF	75, 104 and 160 CF	12	29	28
Corner Socket	201047-2 203966-1 ¹					
Corner Pin	202173-5	104 CF	104 CF	—	—	—
Corner Socket	202174-1	104 CF	104 CF	—	—	—

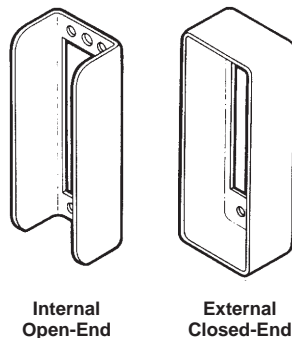
¹These Corner or Center Guide Sockets (.880 [22.35] long) are to be used when housings are loaded with subminiature COAXICON contacts.

For Complete Product Information, Order Catalog 82003

M Series Connectors

Protective Hardware

Pin Hoods



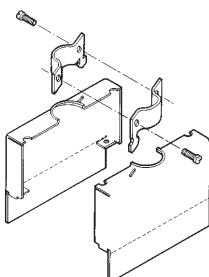
Pin and Socket Connectors (Continued)

Pin Hoods	Material	Pin Hood Part No.	Connectors Used On (No. of Positions)				
			Standard	Posted	Special Application		
					High Current	Mixed	High Voltage
Internal Open-End	Nickel Plated Steel	201363-4	14	14	—	—	—
	Nickel Plated Steel	201786-4	34	34	—	16	20
Internal Closed-End	Nickel Plated Steel	202434-4	34	34	—	16	20
	Nickel Plated Steel	202394-2	50	50	—	42	—
	Nickel Plated Steel	201369-4	75	75	12	—	28
	Nickel Plated Steel	203743-4	160 CF	160 CF	—	—	—
External Closed-End	Nickel Plated Steel	201390-5	50	50	—	42	—
	Nickel Plated Steel	201368-4	75	75	12	29	28
	Nickel Plated Steel	202119-2	104 CF	104 CF	—	—	—

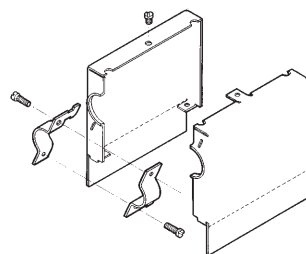
Shields, Two-Piece, 180° and 90° Cable Exit

Material and Finish

Shields — See chart
 Cable Clamp — Steel, nickel plated
 Screws — Steel, zinc plated



180° Cable Exit



90° Cable Exit

Two-Piece Shields	Material	Shield Part No.		Max. Cable Dia.	Connectors Used On (No. of Positions)			
		Long	Short		Standard	Special Application		
						High Current	Mixed	High Voltage
180° Cable Exit	Nickel Plated Steel	—	204087-1	.375 9.53	20	—	—	—
	Nickel Plated Steel	—	200514-2	.415 10.54	26	—	15	—
	Anodized Aluminum	201571-1	—	.500 12.7	34	—	16	20
	Nickel Plated Steel	201571-2	—					
	Anodized Aluminum	—	200517-1					
	Nickel Plated Steel	—	200517-2					
	Nickel Plated Steel	202383-2	—	.435 11.05	41	—	—	—
	Anodized Aluminum	201443-1	—	.550 13.97	50	—	42	—
	Nickel Plated Steel	201443-2	—					
	Anodized Aluminum	—	200532-1					
	Nickel Plated Steel	—	200532-2					
	Nickel Plated Steel	202713-2	—	1.00 25.4	75	12	—	28
90° Cable Exit	Nickel Plated Cast Aluminum	—	201131-1	.800 20.32	104	—	—	—
	Nickel Plated Steel	—	202711-1	1.00 25.4	75	12	—	28

For Complete Product Information, Order Catalog 82003

M Series Connectors

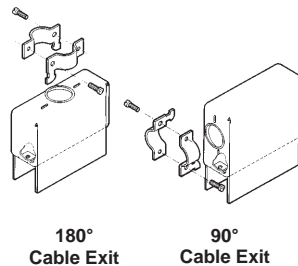
Pin and Socket Connectors (Continued)

Shields, One-Piece, 180° and 90° Cable Exit

Material and Finish

Shields and Cable Clamps — Steel,
nickel plated

Screws — Steel, zinc plated



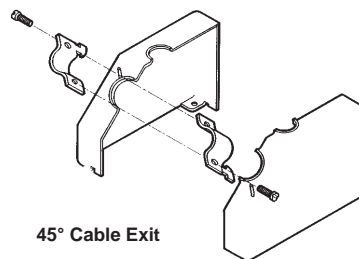
Shield Part No.		Max. Cable Dia.	Connectors Used On (No. of Positions)		
Long	Short		Standard	Mixed	High Voltage
201378-2	—	.375 9.53	14	—	—
—	201360-2	.350 8.89	20	—	—
—	201169-2	.400 10.16	26	15	—

Shields, Two-Piece, 45° Cable Exit

Material and Finish

Shields and Cable Clamps — Steel,
nickel plated

Screws — Steel, zinc plated



Shield Part No.	Max. Cable Dia.	Connectors Used On (No. of Positions)
		Standard
202169-1	1.00 25.4	104 CF
202110-1	.650 16.51	
202798-1	1.20 30.48	160 CF

Strain Relief Hardware Strain Relief Clamps

Material and Finish

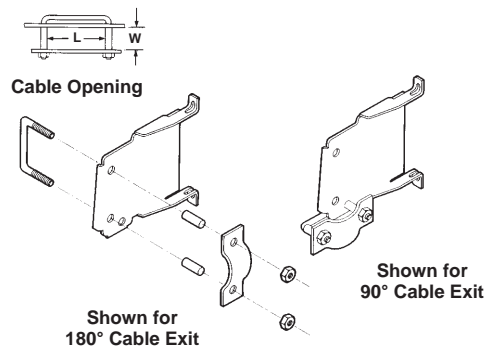
Clamp — Steel, nickel plated

Hex Nuts — Steel, zinc plated

"U" Bolt — Stainless steel

Sleeves — Black plastic (neoprene)

Bracket — See chart



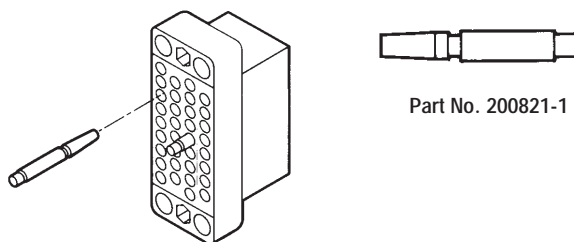
Bracket Material	Cable Opening L x W	Strain Relief Clamp Part No.		Connectors Used On (No. of Positions)			
		Long	Short	Standard	High Current	Mixed Voltage	High
Steel Nickel Plated	.305 x .155 7.75 x 3.94	—	203432-1	6	—	—	—
	.530 x .335 13.46 x 8.51	201843-1	—	14	—	—	—
Stainless Steel	.780 x .335 19.81 x 8.51	—	201237-1	20	—	—	—
	.780 x .505 19.81 x 12.83	201845-1	—	26	—	15	—
Steel Nickel Plated	.780 x .430 19.81 x 10.92	—	201229-1	34	—	16	20
	.780 x .500 19.81 x 12.7	201846-1	—	50	—	42	—
Stainless Steel	.780 x .425 19.81 x 10.8	—	201224-1	75	12	—	28
	1.125 x .675 28.58 x 17.15	201847-1	—	104	—	—	—
Steel Nickel Pl.	1.125 x .550 28.58 x 13.97	—	201182-1	—	—	—	—
Stainless Steel	1.125 x .925 28.58 x 23.5	201848-1	—	—	—	—	—
Steel Nickel Plated	1.125 x .800 28.58 x 20.32	—	200730-1	—	—	—	—
	1.125 x 1.235 28.58 x 31.37	201849-1	—	—	—	—	—

Notes: All parts are packaged unassembled.

Keying Hardware — For Multimate Contact Cavities

Material and Finish

Nylon, natural color



For Complete Product Information, Order Catalog 82003

Circular Connectors

Circular Plastic Connectors (CPC) — Series 1 for Cable and Panel Mount

Material

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Order separately (see pages 322 & 323)

Pin and Socket Connectors (Continued)

Standard Sex Connectors

Shell Size/ No. of Cavities	Part Numbers			
	Receptacles Square Flange With Inserts	Receptacles Square Flange Without Inserts	Receptacles Free-Hanging	Plug Assemblies
11/4	—	206061-1	206153-1	—
13/9	208131-1	206705-1	206705-2	206708-1
17/16	—	206036-1	206036-3	—
23/24	—	206838-1	206838-2	206837-1
23/37	787610-1	206151-1	206151-2	206150-1

Reverse Sex Connectors

Shell Size/ No. of Cavities	Part Numbers			
	Receptacles Square Flange With Inserts	Receptacles Square Flange Without Inserts	Receptacles Free-Hanging	Plug Assemblies
11/4	211102-1	206430-1	206430-2	206429-1
17/14	211103-1	206043-1	206043-3	206044-1
23/37	—	206306-1	206306-2	206305-1



Circular Plastic Connectors (CPC) — Series 1 VDE Tested for Cable and Panel Mount

Material

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Order separately (see pages 322 & 323)

Standard Sex Connectors

Shell Size/ No. of Cavities	Part Numbers	
	Receptacles Square Flange Without Inserts	Plug Assemblies
13/7	211401-1	211399-1
17/9	211767-1	211766-1
23/19	211771-1	211770-2

Reverse Sex Connectors

Shell Size/ No. of Cavities	Part Numbers	
	Receptacles Square Flange Without Inserts	Plug Assemblies
13/7	211398-1	211400-1
17/9	211769-1	211768-1
23/19	211773-1	211772-1

Circular Plastic Connectors (CPC) — Series 1 Receptacle for PC Board Mount
(With .025 [0.64] Square Solder Tails)

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Duplex plated gold flash on entire contact with .000030 [0.00076] min. gold on contact engagement area, tin-lead on termination area

Standard Sex (Posted Pin Contacts)

Shell Size	Receptacle Assemblies	
	Mounting Holes	Threaded Inserts
11-4	—	207825-1
13-9	208223-1	—
17-16	207303-3	—

Note: Posts are .017 [0.43] offset from centerline of contacts. All posts must be oriented in the same plane for proper contact/post location.

Reverse Sex (Posted Socket Contacts)

Shell Size	Receptacle Assemblies	
	Mounting Holes	Threaded Inserts
11-4	208283-1	—
23-37	208224-1	—
23-37	207890-1	—

Note: Posts are .017 [0.43] offset from centerline of contacts. All posts must be oriented in the same plane for proper contact/post location.



Shell Size 13/9Pos. w/Mtg. Holes
Part No. **208223-1**
(37 pos. shown in photo)

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82021

Circular Connectors

Special Circular Plastic Connectors (CPC) — Series 1 Receptacle with Square Flange and Round Posted Contacts (Size 16)
Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Brass, plated tin over .000050 [0.00127] min. nickel on entire contact



Shell Size 17/16 Pos.
Part No. 207292-1

Pin and Socket Connectors (Continued)

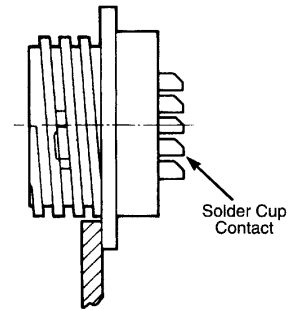
Special CPC Connectors, Square Flange Receptacle, With Solder Type Contacts (Size 16), Contact Arrangement 17-16
Material and Finish:

Housing — Thermoplastic, 94V-0 rated, heat-stabilized, fire-resistant, self-extinguishing, black

Contacts — Brass

Plating —

Plated .000030 [0.00076] min. gold over .000030 [0.00076] min. nickel on entire contact.



Connector Part No. 206404-1

Special Circular Plastic Connectors (CPC) — Series 1 Receptacle for Feed-Through (Pressure Rating up to 30 psi)
Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Copper alloy, plated gold over nickel

Shell Size	Standard Numbering Plug	Reverse Numbering Plug	Feed-Thru Receptacle
11/4	206060-1	—	—
17/16	206037-1	206554-1	206552-1

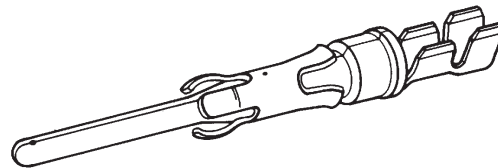

**Signal Contacts
Type III+ (Precision Formed, Crimp)**

Contact Size — 16
Pin Diameter — 1.57 [.062]

Material and Finish

Contact Body — Copper alloy, plated tin or gold

Spring — Stainless steel

**Grounding Pin
(make first - break last)**


Wire Size Range		Ins. Dia. Range ¹	Contact Finish	Strip-Form Pin	Loose Piece Pin
[mm ²]	AWG			Contact No.	Contact No.
0.8-1.4	18-16	1.98-2.49 .078-.098	Tin-Lead	164161-3	164164-1
			Sel. Gold/Nickel ⁴	164161-4	164164-2

¹Overall insulation crimp diameter, including crimp barrel, must not exceed 3.18 [.125].

⁴Gold flash over 0.00127 [.000050] nickel on entire contact, with 0.00076 [.000030] gold in contact area.

Special Circular Plastic Connectors (CPC) — Series 2 Receptacles for Feed-Through (Pressure Rating up to 30 psi)
Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Copper alloy, plated gold over nickel

Shell Size	Standard Numbering Plug	Feed-Thru Receptacle
11/8	205838-1	—
17/28	—	206127-1

Note: One plug must have standard numbering cavities, and the other plug must have reverse numbering cavities.



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82021

Circular Connectors

Circular Plastic Connectors (CPC) — Series 2 for Cable and Panel Mount

Material

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Order separately (see Catalog 82021)

Pin and Socket Connectors (Continued)

Standard Sex Connectors

Shell Size/ No. of Cavities	Part Numbers		
	Receptacles Square Flange Without Inserts	Receptacles Free-Hanging	Plug Assemblies
11/8	205841-1	205841-2	—
11/9	206486-1	206486-2	206485-1
17/28	205840-3	206152-1	205839-3
23/63	205843-1	205843-2	205842-1

Note: Receptacles accept Size 20 DM or DF Pin Contacts. Plugs accept Size 20 DM or DF Socket Contacts. Max. wire insulation diameter is .220 [5.59].

Reverse Sex Connectors

Shell Size/ No. of Cavities	Part Numbers			
	Receptacles Square Flange Without Inserts	Receptacles Square Flange With Threaded Inserts	Receptacles Free-Hanging	Plug Assemblies
11/8	206433-1	206433-3	—	206434-1
17/28	206038-1	—	206038-2	206039-1
23/57	206438-1	—	206438-2	206437-1

Note: Receptacles accept Size 20 DM or DF Socket Contacts. Plugs accept Size 20 DM or DF Pin Contacts. Max. wire insulation diameter is .220 [5.59].



Receptacles, Printed Circuit Board Mount

with .025 [0.64] sq. solder tails

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts —

A — Duplex plated gold flash on entire contact with .000030 [0.00076] min. gold on contact engagement area, tin-lead on the termination area, all over .000050 [0.00127] min. nickel underplating

B — Plated gold flash on the entire contact, tin-lead on the termination area

Standard Sex (Posted Pin Contacts)

Shell Size	Receptacle Assemblies
	Mounting Holes
11/9	206852-2
17/28	207369-1
23/63	206455-2

Note: Posts are .017 [0.43] offset from centerline of contacts. All posts must be oriented in the same plane for proper contact/post location.

Reverse Sex (Posted Socket Contacts)

Shell Size	Receptacle Assemblies
	Mounting Holes
11/8	208657-1
17/28	207216-2

Note: Posts are .017 [0.43] offset from centerline of contacts. All posts must be oriented in the same plane for proper contact/post location.



Circular Plastic Connectors (CPC) — Series 3

Material

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Order separately (see Catalog 82021)

Standard Sex Connectors

Shell Size/ No. of Cavities	Part Numbers		
	Receptacles Square Flange Without Inserts	Receptacles Free-Hanging	Plug Assemblies
17/3	206036-2	206207-1	206037-2
23/7	206137-1	206137-2	206136-1

Note: Receptacles accept XII Pin Contacts. Plugs accept Type XII Socket Contacts. Max. wire insulation diameter is .220 [5.59].

Reverse Sex Connectors

Shell Size/ No. of Cavities	Part Numbers		
	Receptacles Square Flange Without Inserts	Receptacles Free-Hanging	Plug Assemblies
17/3	206425-1	206425-2	206426-1
23/7	206227-1	—	206226-1

Note: Receptacles accept XII Socket Contacts. Plugs accept Type XII Pin Contacts. Max. wire insulation diameter is .220 [5.59].



Circular Plastic Connectors (CPC) — Series 4

Material

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Order separately (see pages 322 & 323). Also see Catalog 82021

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Shell Size	No. of Cavities		Receptacles		Plug
	Power	Multimate	Square Flange	Free-Hanging	
23-13M	5	8	211825-1	—	211824-1
23-16M	4	12	207486-1	207486-2	207485-1
23-22M	2	20	206613-1	206613-3	206612-1

Note: Maximum wire insulation diameter is .150 [3.81] for Multimate contacts; .220 [5.59] for Power contacts.



For Complete Product Information, Order Catalog 82021

Circular Connectors

Circular Plastic Connectors (CPC) — Cable Clamps

Material

Housing — Thermoplastic, heat stabilized, fire-resistant, self-extinguishing, 94V-1 rated, black

Pin and Socket Connectors (Continued)

Standard Size Cable Clamps

Shell Size	Cable O.D. Max.	Thread Size	Part Numbers	
			Individually Packaged	Bulk Packaged
11	.329 8.36	5/8-24 UNEF-2B	206062-3	206062-4 ¹
13	.453 11.51	3/4-20 UNEF-B	206966-1	206966-2 ²
17	.453 11.51	15/16-20 UNEF-B	206070-1	206070-3 ²
23	.703 17.86	1-3/8-18 UNEF-B	206138-1	206138-2 ³

Minimum quantity that can be ordered in multiples:

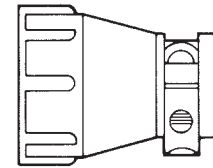
¹ 400, ² 200, ³ 100

Large Size Cable Clamps

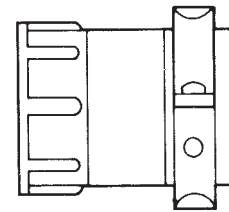
Shell Size	Cable O.D. Max.	Thread Size	Part Numbers	
			Individually Packaged	Bulk Packaged
11	.453 11.51	5/8-24 UNEF-2B	206358-1	206358-2 ¹
13	.703 17.86	3/4-20 UNEF-B	—	207008-2 ²
17	.703 17.86	15/16-20 UNEF-B	206322-1	206322-2 ²
23	1.125 28.58	1-3/8-18 UNEF-B	206512-1	206512-2 ³

Minimum quantity that can be ordered in multiples:

¹ 200, ² 100, ³ 75



Standard Size

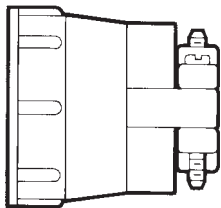


Large Size

Circular Plastic Connectors (CPC) — Cable Clamps, Self-Centering (Shell Size 23)

Material

Housing — Thermoplastic, black

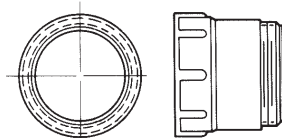


Part No. 207774-1 Individual Pack
Part No. 207774-2 Bulk Pack

Circular Plastic Connectors (CPC) — Back-Shell Extender (Shell Size 23)

Material

Housing — Glass-filled thermoplastic, black

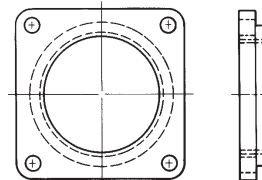


Part No. 207055-1

Circular Plastic Connectors (CPC) — Panel Mount Flanges (Plugs Only)

Material

Housing — Thermoplastic, black

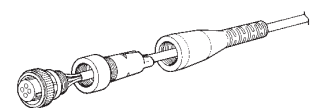


Part No. 207299-1 Shell Size 11
Part No. 207299-2 Shell Size 13
Part No. 207299-3 Shell Size 17
Part No. 207299-4 Shell Size 23

Circular Plastic Connectors (CPC) — Flexible Cable Boot and Internal Cable Grip (Shell Size 11)

Material

Housing — Thermoplastic, black
Cable Range — .150-.250 [3.81-6.35]



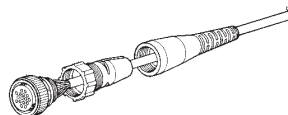
Part No. 207489-1 Cable Boot
Part No. 207490-1 Cable Grip

Circular Plastic Connectors (CPC) — Flexible Cable Boot and Internal Cable Grip (Shell Size 17)

Material

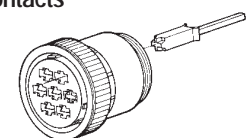
Housing — Thermoplastic, black

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.



Part No. 207241-1 Cable Boot
Part No. 207387-1 Cable Grip
(for Cable Range of .200-.250 [5.08-6.35])
Part No. 207387-2 Cable Grip
(for Cable Range of .250-.350 [6.35-8.89])

Circular Plastic Connectors (CPC) — Keying Plugs, Series 3 and 4 for Type XII Contacts



Part No. 206508-1 Socket Cavities
Part No. 207597-1 Pin Cavities

For Complete Product Information, Order Catalog 82021

Circular Connectors

Circular Plastic Connectors (CPC) — Sealed, Special Series I Receptacle with Pre-Installed, Bonded Peripheral Seal

Material

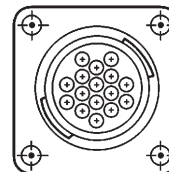
Housing — Thermoplastic, 94V-0 rated, black

Seal — Elastomer, gray

Pin and Socket Connectors (Continued)

Shell Size	Series I Receptacles with Peripheral Seal			
	No. of Positions	Sex	Square Flange Part No.	Free-Hanging Part No.
13	9	Std.	206705-3	—
17	16	Std.	206036-4	206036-5
	14	Rev.	206043-4	—

Notes: 1. For detailed performance data on peripheral seals, refer to AMP Product Specification No. 108-10024.
2. Receptacle mates with Series 1 plugs.



Circular Plastic Connectors (CPC) — Sealing Caps for Receptacles

Material and Finish

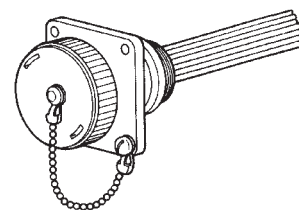
Cap — Thermoplastic, heat stabilized, fire-resistant, self-extinguishing, 94V-1 rated, black

Sealing Gasket — Neoprene, black

Bead Chain — Steel, plated nickel

Bead Chain Coupling — Brass, plated nickel

Shell Size	Series	Part Numbers	
		With Plastic Strap	With Metal Bead Chain
11	1 & 2	206903-1	208800-1
13	1	211870-1	213485-1
17	1, 2 & 3	207445-1	208652-1
23	1, 3 & 4	207446-1	208680-1
		207446-2	208680-2



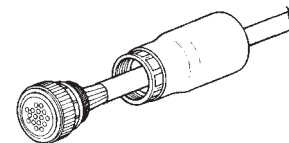
Circular Plastic Connectors (CPC) — Cable Entry Seals, Heat Shrinkable

Material

Internal Sleeve — Nylon

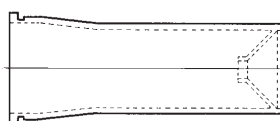
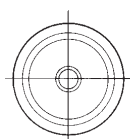
Outer Tubing — Polyolefin

Shell Size	Sealing Range Diameter	Part Number
11	.260-.600	54010-1
	6.60-15.25	
13	.300-.725	54123-1
	7.62-18.42	
17	.400-.875	54011-1
	10.16-22.22	
23	.550-1.250	54012-1
	13.97-31.75	



Jacketed Cable Seals (for Shell Size 23)

A jacketed cable seal kit provides an environmentally sealed connection for jacketed cable.



Female

Material

Peripheral Seal — Grey elastomer

Collar — Aluminum

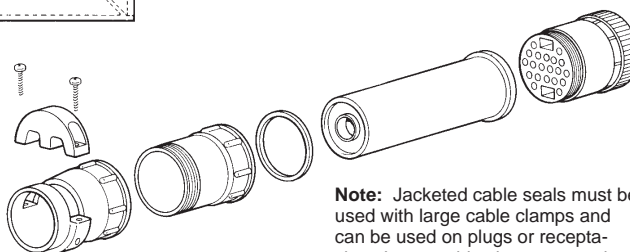
Jacketed Cable Seal — Black rubber

Back-Shell Extender — Black

glass-filled thermoplastic

Special Clamp Saddle — Black thermoplastic

Sealing Range Dia.	Kit Number
.450-.600 11.43-15.24	207052-2
.600-.875 15.24-22.22	207052-3



Note: Jacketed cable seals must be used with large cable clamps and can be used on plugs or receptacles. Large cable clamps are to be ordered separately.

Circular Plastic Connectors (CPC) — Rubber Boot

Material

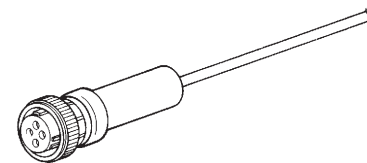
Neoprene, black

Cable Range — .219-.438 [5.56-11.13]

Note: For use with jacketed cable and can be used on all plugs and receptacles except Series 2 connectors.



Shell Size 11
Part No. 206304-1



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

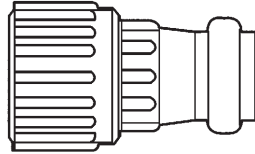
For Complete Product Information, Order Catalog 82021

Circular Connectors

Pin and Socket Connectors (Continued)

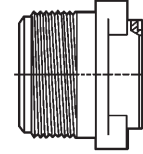
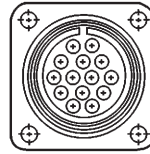
Plug Kit, Unassembled

Part Number 213571-2
without Cable Clamp



Receptacle, Square Flange
Reverse Sex

Part Number 213570-1



Circular Plastic Connectors
(CPC) — Metal Shell
Series 1, Standard Sex

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Metal Shell — Zinc alloy, plated nickel

Grooved Pin — Steel alloy, plated nickel

Tetraseal — Fluorocarbon

Retainer Ring — Stainless steel

Coupling Ring — Zinc alloy, plated nickel

Contacts — Order separately (see pages 322 & 323)

Shell Size/ No. of Cavities	Part Numbers		
	Receptacles Square Flange	Plugs without Tetraseals	Plugs with Tetraseals
14/15	208719-1	208718-1	208718-2
14/7	208715-1	208714-1	—
22/16	208489-1	208488-1	208488-3
28/24	208459-1	208457-1	—
28/37	208471-1	208470-1	—

Note: Maximum wire insulation diameter is .100 [2.54], except arrangements 14/5 and 28/24 are .150 [3.81] max.



Circular Plastic Connectors
(CPC) — Metal Shell
Series 1, Reverse Sex

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Metal Shell — Zinc alloy, plated nickel

Grooved Pin — Steel alloy, plated nickel

Tetraseal — Fluorocarbon

Retainer Ring — Stainless steel

Coupling Ring — Zinc alloy, plated nickel

Contacts — Order separately (see pages 322 & 323)

Shell Size/ No. of Cavities	Part Numbers		
	Receptacles Square Flange	Plugs without Tetraseals	Plugs with Tetraseals
14/15	208721-1	208720-1	—
14/7	208717-1	208716-1	—
22/14	208487-1	208486-1	208486-3
28/37	208473-1	208472-1	—

Note: Maximum wire insulation diameter is .100 [2.54], except arrangements 14/5 and 28/24 are .150 [3.81] max.



Metal-Shell CPC Connectors,
Series 2, Standard Sex

Material and Finish

Square Flange Receptacle —

Housing and Retention Insert —

Thermoplastic, UL 94V-0 rated, black

Metal Shell — Zinc alloy, plated nickel

Grooved Pin — Steel alloy, plated nickel

Tetraseal — Fluorocarbon

Retainer Ring — Stainless steel

Coupling Ring — Zinc alloy, plated nickel

Contacts — Order separately (see Catalog 82021)

Shell Size	Part Numbers	
	Square Flange Receptacle	Plug without Tetraseal
22-28	208491-1	208490-1
28-63	208477-1	208476-1



For Complete Product Information, Order Catalog 82021

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Circular Connectors

Pin and Socket Connectors (Continued)

Metal-Shell CPC
Connectors, Series 2,
Reverse Sex

Material and Finish

Square Flange Receptacle — Housing and Retention Insert — Thermoplastic, UL 94V-0 rated, black
Metal-Shell — Zinc alloy, plated nickel
Grooved Pin — Steel alloy, plated nickel
Retainer Ring — Stainless steel
Coupling Ring — Zinc alloy, plated nickel
Contacts — Order separately (see Catalog 82021)

Shell Size	Square Flange Receptacle	Plug without Tetraseal
28-57	208475-1	208474-1

Metal-Shell CPC
Connectors, Series 3,
Standard Sex

Material and Finish

Square Flange Receptacle — Housing — Thermoplastic, UL 94V-0 rated, black
Metal-Shell — Zinc alloy, plated nickel
Peripheral Seal — Elastomer, grey
Grooved Pin — Stainless steel
Tetraseal — Fluorocarbon
Retainer Rings — Stainless steel
Coupling Ring — Zinc alloy, plated nickel
Contacts — Order separately (see Catalog 82021)

Shell Size	Square Flange Receptacle	Plug without Tetraseal
22-3	—	208494-1
28-7	208483-1	208482-1

Metal-Shell CPC
Connectors, Series 3,
Reverse Sex

Material and Finish

Square Flange Receptacle — Housing — Thermoplastic, UL 94V-0 rated, black
Metal-Shell — Zinc alloy, plated nickel
Peripheral Seal — Elastomer, grey
Grooved Pin — Stainless steel
Tetraseal — Fluorocarbon
Retainer Rings — Stainless steel
Coupling Ring — Zinc alloy, plated nickel
Contacts — Order separately (see Catalog 82021)

Shell Size	Square Flange Receptacle	Plug without Tetraseal
22-3	—	208496-1
28-7	208485-1	208484-1



For Complete Product Information, Order Catalog 82021

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Circular Connectors

Metal-Shell CPC Connectors, Series 4, Standard Sex

Material and Finish

Square Flange Receptacle —
Housing — Thermoplastic, UL 94V-0 rated, black

Metal-Shell — Zinc alloy, plated nickel

Grooved Pin — Stainless steel

Tetraseal — Fluorocarbon

Retainer Rings — Stainless steel

Coupling Ring — Zinc alloy, plated nickel

Contacts — Order separately (see pages 322, 323 & Catalog 82021)

Pin and Socket Connectors (Continued)

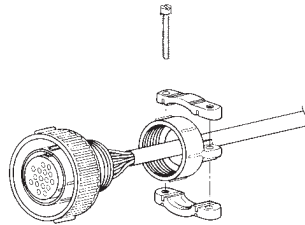
Arrangement	Square Flange Receptacle	Plug without Tetraseal
28-16M	208479-1	208478-1
28-22M	208481-1	—



Circular Plastic Connectors (CPC) — Metal Shell Cable Clamps

Material and Finish

Zinc alloy, nickel plated



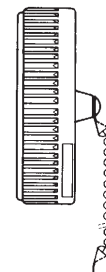
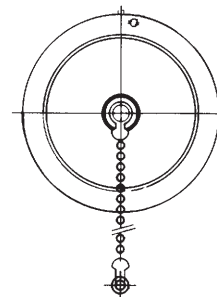
Shell Size	Cable O.D. Range	Thread Size	Part Number
14	.225-.562 5.71-14.27	7/8-20 UNEF-3B	208945-5
22	.325-.750 8.26-19.05	1-3/16-18 UNEF-3B	208945-7
28	.450-.938 11.43-23.83	1-7/16-18 UNEF-3B	208945-8

Protective Cap Assemblies (for Metal-Shell CPC Receptacles Only)

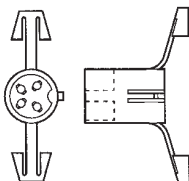
Material and Finish

Zinc alloy, nickel plated

Shell Size	Part No.
14	213823-2
22	211903-1
28	211904-1



Audio/Instrument Connectors (DIN Type)



Plug Assemblies

Material

Contact Housings and Cord Guard — Thermoplastic, black

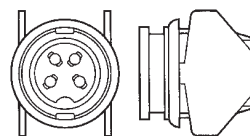


No. of Pos.	Contact Housing Part No.	Cord Guard Part No.
4	207313-1	207314-1
6	207332-1	—

Receptacles

Material

Housing — Thermoplastic, black



No. of Pos.	Receptacle Housing Part No.
4	207316-1

Contacts

Material and Finish

Brass, plated:

A — Tin over nickel

B — Gold flash over nickel

Pin Diameter — .058 [1.47]

Wire Range — 28-22 AWG
[0.08-0.04 mm²]

Insulation Diameter Range — .036-.054 [0.91-1.37]



Pin Contact



Socket Contact

Contact Finish	Pin Strip	Socket Strip
Tin	207438-2	207437-2

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82021

Circular Connectors

**.125 POWERBAND Contacts
(used with CPC and
Metrimate Connectors)****Material and Finish**

Contacts — Copper
Plating — .000030 [0.00076] min.
 gold on contact area, gold flash on
 remainder, all over .000050 [0.00127]
 min. nickel underplate.



.125 POWERBAND Pin Contact
 Part No. 213845-2



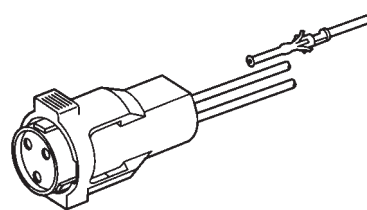
.125 POWERBAND Socket Contact
 Part No. 213847-4

Econoseal Sealed

Free-Hanging Plugs**Material**

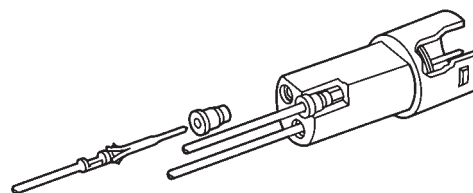
Thermoplastic, black

No. of Positions	Plug Part No.
1	207901-1
2	207845-1
3	207567-1
4	207571-1
7	207575-1
9	208530-1

**Free-Hanging Receptacles****Material**

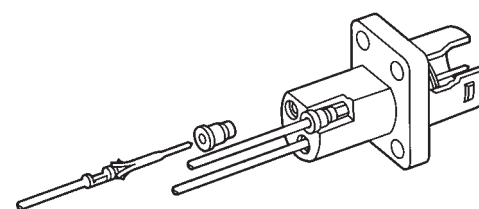
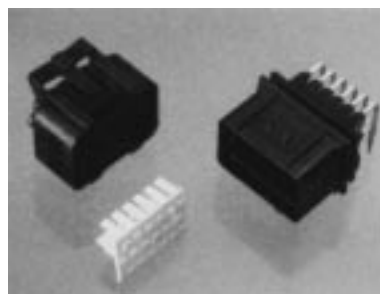
Thermoplastic, black

No. of Positions	Receptacle Part No.
1	207902-1
2	207846-1
3	207563-1
4	207569-1
7	207573-1

**Flanged Panel-Mount
Receptacles****Material**

Thermoplastic, black

No. of Positions	Receptacle Part No.	Flanged Receptacle Mate with Plug Part No.
3	207807-1	—
8	208677-1	208678-1
9	208546-1	—

**Econoseal III****070 Series, Wire To Board,
Connector Housings, Headers
and Lock Plates**

Positions	Plug Connectors Receptacle Contact 175104-2 Required		Printed Circuit Board Header
	Housing Black Nylon	Lock Plate White Nylon	Housing, Black Nylon, Glass Filled
18	344106-1	344107-1	344103-1
36	344111-1	344112-1	344108-1

Header contacts are brass with selective gold plating at the separable interface and tin lead plating at the PCB interface.

For Complete Product Information, Order Catalogs 296322, 82057 and 65481

Metrimate Connectors

Signal Contacts
Type III+ (Crimp)

Contact Size — 16
Pin Diameter — 1.57 [.062]

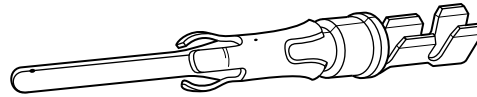
Material and Finish

Contact Body — Copper Alloy, plated
tin or gold

Spring — Stainless steel

Pin and Socket Connectors (Continued)

Grounding Pin
(mate first, break last)



Wire Size Range AWG [mm²]	Ins. Dia. Range¹	Contact Finish	Strip Form Pin Contact No.	Loose Form Pin Contact No.
24-20 [0.2-0.6]	1.14-1.78 .045-.070	Sel. Gold/Nickel²	164160-4	164163-2

¹Overall insulation crimp diameter, including crimp barrel, must not exceed 3.18 [.125].

²Gold flash over 0.00127 [.000050] nickel on entire contact, with 0.00076 [.000030] gold in contact area.

Power Contacts Size 8,
4/8 Indent Crimp

Material and Finish

Contact Body — Copper Alloy, plated
0.00076 [.000030] gold over 0.00127
[.000050] nickel

Retention Clip — Phosphor bronze,
nickel plated



Pin



Socket

Note: Standard Size 8 is not intermateable with High Current Size 8.

Standard, (Test Current 45 Amperes)

Wire Range AWG [mm²]	Contacts	
	Pins	Sockets
18-16 [0.8-1.4]	213567-1	—
14-12 [2-3]	213662-1	—
10 [5]	213740-1	213737-1
8 [8]	213552-2	—

Power Contacts Size 8
Cable-to-Cable

Material

Contact Body — Copper Alloys
Louvertac Band — Beryllium Copper
Retention Spring — Stainless steel
Finish — Gold



High Current, (Test Current 56 Amperes)

Wire Size AWG	Contact Part Numbers
	Sockets
8	193458-1
10	193643-1

Preformed Female
Louvertac Bands
Bridge Formed Type

Material

Beryllium Copper



AMP P/N	Pin Dia.	Length	Material Thickness	Finish	Suggested Current Limit
5-192044-6	.062 [1.57]	.20 [5.10]	.005 [.13]	Gold	25
6-192038-5	.315 [8.00]	.48 [12.2]	.008 [.20]	Silver	185

Square Grid — Free-
Hanging and Panel Mount

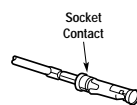
Material

Housing — Thermoplastic, 94V-0
rated, red

Contacts — Order separately (see
above and pages 322, 323 & Catalog
82045)

Mateable Headers — See pages
342 & 343

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.



Plug Housing



Receptacle Housing

No. of Pos.	Part Numbers	
	Plug	Receptacle
4	207015-1	207016-1
6	207152-1	207153-1
12	207017-1	207018-1
18	207442-1	207443-1
24	207304-1	207305-1
36	207019-1	207020-1

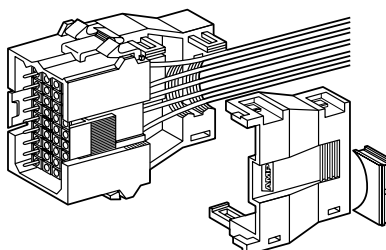
For Complete Product Information, Order Catalog 82045, 65141 and 65910

Metrimate Connectors

Square Grid — Strain Relief Kits for Plugs and Receptacles

Material

Thermoplastic, 94V-0 rated, red

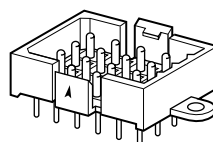


No. of Pos.	Cable O.D. Max.	Part Number ¹
6	9.5 .375	207600-1
9	11.7 .460	207601-1
12	13.45 .530	207602-1
18	16.5 .650	207603-1
24	19.05 .750	207088-1
36	23.3 .916	207604-1

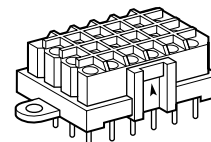
¹Individual packs

Square Grid — PC Board Mount Headers

Material and Finish

Housing — Thermoplastic, 94V-0 rated, red**Pin Contacts** — Copper alloy, plated tin or duplex 0.00076 [.000030] gold on mating end, tin-lead on termination end, with nickel on entire contact**Socket Contacts** — Phosphor bronze, plated tin or duplex 0.00076 [.000030] gold on mating end, tin-lead on termination end, with nickel on entire contact**Mateable Headers** — Free-Hanging Connectors below

Pin Header



Socket Header

No. of Positions	Contact Plating	Pin Header Part No.		Mates with Plug Part No.	Socket Header Part No.		Mates with Receptacle Part No.
		With Mounting	Without Mounting		With Mounting	Without Mounting	
4	Tin	207119-1	207119-2	207015-1	207496-1	207496-2	207016-1
	Gold*	207119-3	207119-4		207496-3	—	
6	Tin	207158-1	207158-2	—	207524-1	207524-2	—
	Gold*	207158-3	207158-4		207524-3	207524-4	
9	Tin	207441-1	207441-2	207439-1	207526-1	207526-2	207440-1
	Gold*	207441-3	207441-4		207526-3	207526-4	
12	Tin	207120-1	207120-2	207017-1	207528-1	207528-2	207018-1
	Gold*	207120-3	207120-4		207528-3	207528-4	
18	Tin	207444-1	207444-2	—	207530-1	207530-2	—
	Gold*	207444-3	207444-4		207530-3	207530-4	
24	Tin	206763-1	206763-2	—	207532-1	207532-2	—
	Gold*	206763-3	206763-4		207532-3	207532-4	
36	Tin	207121-1	—	207019-1	207534-1	207534-2	207020-1
	Gold*	207121-3	207121-4		207534-3	—	

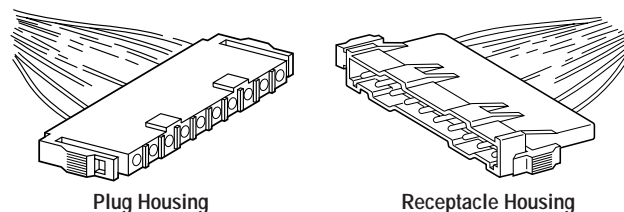
*Duplex plated 0.00076 [.000030] gold on mating end, tin-lead on termination end, with entire contact nickel underplated.

Note: Pin and Socket Headers do not mate.

In-Line Connectors — Free-Hanging

Material

Thermoplastic, 94V-0 rated, red

Contacts — Order separately (see pages 322, 323 & Catalog 82045)**Mateable Headers** — PC Board Mount Headers above

Plug Housing

Receptacle Housing

No. of Pos.	Part Numbers	
	Plug	Receptacle
1	207535-1 ¹	—
1	211076-1 ²	—
3	207360-1	207359-1
6	207377-1	207376-1
10	207396-1	207397-1
16	207542-1	207543-1

¹Positive Latch²Breakaway Latch

1 Position Housing — Hermaphroditic
(Housing Accepts Pins or Sockets and Mates With Itself)

For Complete Product Information, Order Catalog 82045

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

Metrimate Connectors

In-Line Connectors —
PC Board Mount Headers

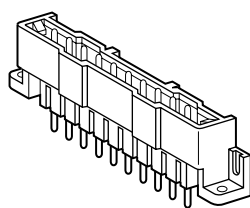
Material and Finish

Housing — Thermoplastic, 94V-0 rated, red

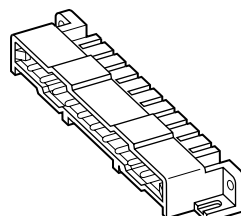
Pin Contacts — Copper alloy, plated tin or duplex 0.00076 [.000030] gold on mating end, tin-lead on termination end, with nickel on entire contact

Socket Contacts — Phosphor bronze, plated tin or duplex 0.00076 [.000030] gold on mating end, tin-lead on termination end, with nickel on entire contact

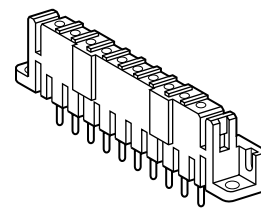
Mateable Connectors — Free-Hanging Connectors on page 342



Pin Header – Straight Through



Pin Header – Right-Angle



Socket Header – Straight Through

No. of Pos.	Contact Plating	Part Numbers			
		Pin Header		Socket Header	
		Straight Through	Right Angle	Straight Through	Right Angle
3	Tin	207365-1	207541-1	207609-1	207608-1
	Gold	207365-3	207541-3	207609-3	207608-3
6	Tin	207583-1	207378-1	207611-1	207610-1
	Gold	207583-3	207378-3	207611-3	207610-3
10	Tin	207584-1	207398-1	207613-1	—
	Gold	207584-3	207398-3	207613-3	207612-3
16	Tin	207599-1	207544-1	207615-1	207614-1
	Gold	207599-3	207544-3	207615-3	207614-3

In-Line Connectors, 5.08
[.200] Centerline —
Free Hanging and
PC Board Mount Header

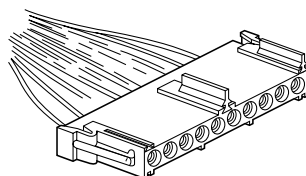
Material and Finish

Connector & Header Housings —

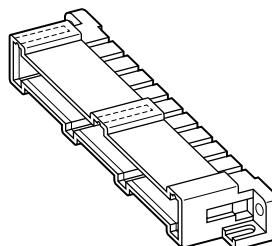
Thermoplastic, 94V-0 rated, red

Header Contacts — Copper alloy, plated tin

Connector Contacts — Order separately (see page 342)



Plug Housing



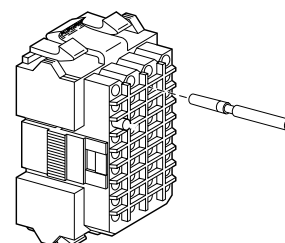
Right-Angle Pin Header

No. of Pos.	Plug Part Number	Contact Plating	Right-Angle Pin Header	
			Standard Part Number	Keyed Part Number
6	208117-1	Tin	208116-1	—
10	208404-1	Tin	208403-1	2-208403-1
19	208100-1	Tin	208099-1	—

Keying Plug — For Square Grid, In-Line and Drawer Connectors

Material

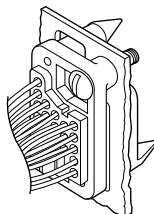
Nylon

Keying Plug for Plug Housings
Part Number 207654-1Drawer Connectors —
Standard Panel Mount

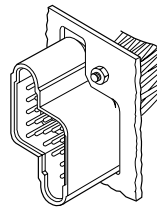
Material

Glass-filled thermoplastic, 94V-0 rated, black

Connector Contacts — Order separately (see pages 322, 323 & Catalog 82045)



Plug Housing



Receptacle Housing

No. of Pos.	Connector Housing Part Nos.		PC Header Part Nos.	
	Plug	Receptacle	Pin Headers	
			Solder Tails	ACTION PIN
4	212608-1	212609-1	—	—
12	211758-1	211759-1	—	—
19	208210-2	—	—	—
25	211150-1	211149-1	213672-1 ^A	213558-1 ^B

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82045

PC Header Plating Code:

^AContact brass plated 0.00076 [.000030] min. gold on mating end, gold flash remainder, both over 0.00127 [.000050] min. nickel underplating. Post end brass plated 0.00254 [.000100] min. tin-lead over 0.00254 [.000100] min. copper. Spring — Stainless steel.

^BContact phosphor bronze plated 0.00254 [.000100] min. tin-lead over 0.00127 [.000050] min. nickel.

Metrimate Connectors

Drawer Connectors — Power

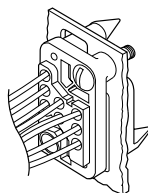
Connector Contacts — Order separately (see Catalog 82045)

Mounting Screws —

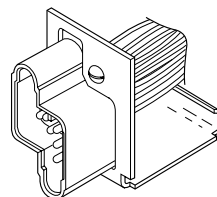
Thread Size M4x0.7-6H/6G Part No. [208211-1](#)

Thread Size SAE 6/32 Part No. [208211-4](#)

Pin and Socket Connectors (Continued)



Plug Housing



Receptacle Housing

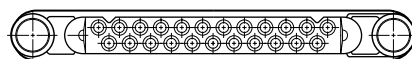
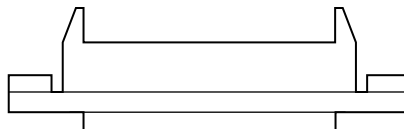
No. of Pos.	Part Numbers	
	Plug	Receptacle
8	213499-1	213500-1
15	213426-1	213427-1

Low Profile Drawer Connectors

Material and Finish

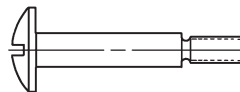
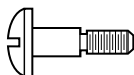
Housing — Black glass-filled thermo-plastic, 94V-0 rated

Contacts — Copper alloy duplex plated 0.00076 [.000030] min. gold on mating end, tin-lead on termination end, with entire contact nickel underplated

23 Position Plug Housing (for Sockets)
Part No. [213766-1](#)23 Position Receptacle Header
Part No. [213768-1](#)Drawer Hardware
Mounting Screw**Material**

Stainless steel

Thread Size	Part No.
M4x0.7-6H/6g	208211-1
SAE 6/32	208211-4



Note: These shoulder screws are used for mounting the plug housing and they provide float for positioning of misaligned connectors. Two are required for each plug. Mounting screws are to be ordered separately. Nuts are to be supplied by the customer.

Screw Kits
Part No. [213283-2](#)

Kit Includes: 2 — M4 screws,
2 — Springs, 2 — Washers

Screw Kits are recommended in order to compensate for misaligned connector halves and to provide float in X, Y, and Z directions.

In-Line Coaxial Socket Headers, Straight-Thru (PC Board Mount)

Material and Finish
Coaxial Contacts

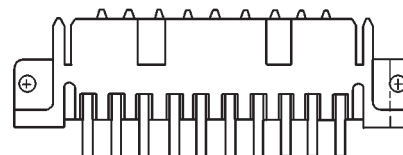
Center Conductor — Copper Alloy plated 0.00127 [.000050] gold over 0.00076 [.000030] nickel

Outer Shell — Copper Alloy, plated 0.00038 [.000015] gold over 0.00127 [.000050] nickel

Power Contacts

Body — Copper Alloy plated 0.00076 [.000030] gold on mating area, 0.00381 [.000150] tin-lead on remainder, both over 0.00127 [.000050] nickel

Hood — Stainless steel



No. of Positions	Mounting Hole (for Screw Size)	Cavity Loading		Socket Header Part No.
		Coaxial Contacts	Power Contacts	
10	3	3, 8 thru 10	1, 2, 4 thru 7	208309-2

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82045

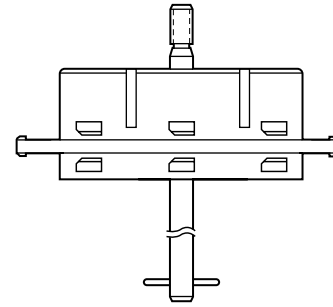
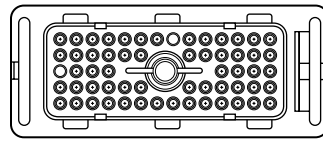
Metrimate Connectors

Pin and Socket Connectors (Continued)

62-Position Rectangular Connector (Panel Mount)

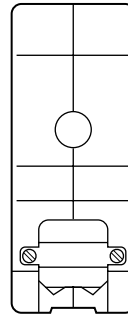
Material

Black thermoplastic, 94V-0 rated

Header Part Numbers
211580-2 and 211580-3Strain Relief Kit
(for Rectangular Connectors,
62 Positions)

Material

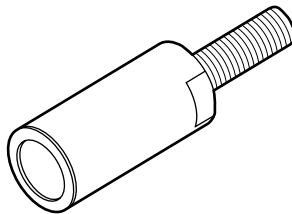
Red thermoplastic, 94V-0 rated

Part No. 208335-1
(for Plug or Receptacle)High Current Threaded
Mount Connector
Thread Mount Socket

Material

Body — Brass

Louvertac Band — Beryllium Copper



Mating Pin Dia.	Part Number	Thread	Contin. Current Amp	Volt Drop mV	Weight oz.
8mm	192271-1	5/16-24	185	12	1.75

Finish

Body — Silver

Louvertac Band —

Gold — 2mm–6mm

Silver — 8mm

Military Qualified Contacts

Classification by Part Number & Connector Series

MIL P/N	AMP P/N	Applicable Military Connector & Series	Mating End Size	Wire Barrel Size	Type	Class/Mat'l
M39029/11-144	204873-4	MIL-C-81659	22	22	Pin	Std.
M39029/11-145	204938-3	MIL-C-81659	20	20	Pin	Std.
M39029/12-149	205116-1	MIL-C-81659	20	20	Socket	Std.
M39029/12-150	205117-1	MIL-C-81659	16	16	Socket	Std.
NASA P/N	AMP P/N	Applicable NASA Connector	Mating End Size	Wire Barrel Size	Type	Class/Mat'l
G10P1	205089-4	S-311-P-4	20	20	Pin	N/Std.
G10S1	206793-1	S-311-P-4	20	20	Socket	N/Std.

For Complete Product Information, Order Catalogs 82045, 65141 and 65458

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Switches and Shunts

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Shunts

7600 Series –
Dual-In-Line Package (DIP)
Shunts

Contact Lead Spacing —

.100 x .300 [2.54 x 7.62]

Lead Length — .140 [3.56] below
mounting surface

Material and Finish

Housing — Glass-filled thermoplastic,
94V-0 ratedMetal Parts — Copper alloy with elec-
troplated tin finish

Switches and Shunts (Continued)

No. of Positions	Standard Shunt Standard Pressure	Machine Insertable Shunt
4	435704-4	—
6	435704-6	—
7	435704-7	—
8	435704-8	436860-7
10	1-435704-0	436860-9
12	1-435704-2	1-436860-1

Standard
ShuntMachine
Insertable
Shunt2-Position, Low-Profile
Post Shunts

Material and Finish

Housings — Glass-filled thermoplastic,
94V-0 ratedContacts — Phosphor bronze, plated
.000050 [0.00127] min. nickel, gold
plate in contact area or tin plate overall

Configuration	Part Numbers		
	.000015 [0.00038] Gold Plate	.000030 [0.00076] Gold Plate	.000100 [0.00254] Tin Plate
Strip of 10	531220-2	531220-3	531220-1
Loose Piece	—	531220-5	—

Strip of 10, 2-Position
Low-Profile ShuntsHeavy Duty Housing Shunt
.100 [2.54] Centerlines
Part No. 850102-1

Material and Finish

Housings — Glass-filled thermoplas-
tic, 94V-0 rated, blackContacts — Phosphor bronze or beryl-
lium copper, plated .000050 [0.00127]
min. nickel, .000030 [0.00076] min.
gold plate in contact areaStandard Posted Housing
Shunt .200 [5.08] Centerlines

Material and Finish

Part No. 531230-3 — .000030
[0.00076] min. gold plating,
black housingPart No. 531230-2 — .000015
[0.00038] min. gold plating, black housing

Part No. 531230-1 — .000100

[0.00254] min. tin plate, black housing

Housings — Glass-filled thermoplastic,
94V-0 ratedContacts — Phosphor bronze or
beryllium copper, plated .000050
[0.00127] min. nickel

(Strip of 10)



(Strip of 10)

Tandem Spring Shunts
.100 [2.54] Centerlines

Material and Finish

Housings — Nylon, 94V-0 rated, black

Contacts — Phosphor bronze



Housing Color	Part Numbers		
	Gold Inlay ¹ .000015 [0.00038]	Gold Inlay ¹ .000030 [0.00076]	Tin Plate .000100 [0.00254]
Natural	—	530153-1	—
Black	3-530153-2	530153-2	2-530153-2
Blue	—	530153-6	—

¹In contact area.2mm Mini-Shunt
.079 [2.00] Centerline

Material and Finish

Part No. 382575-2 — .000015

[0.00038] min. gold plating, black housing

Part No. 382575-3 — .000030

[0.00076] min. gold plating, black housing

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82162

Shunts

**2-Position, Low Profile
Economy Shunt**
 .100 [2.54] Centerlines
Material and Finish

Part No. 382811-2 — .000015
[0.00038] min. gold plating, blue housing
Part No. 382811-6 — .000015
[0.00038] min. gold plating, black housing
Part No. 382811-8 — .000005
[0.00013] min. gold plating, black housing

**2-Position, Low Profile
Closed Top Shunts**
 .100 [2.54] Centerlines
Material and Finish

Housings — Glass-filled thermoplas-
tic, 94V-0 rated, black
Contacts — Beryllium copper with
.000015 [0.00038] gold plate on contact
area

Switches and Shunts (Continued)



(Strip of 10)

Housings — Glass-filled thermoplas-
tic, 94V-0 rated
Contacts — Phosphor bronze or beryl-
lium copper, plated .000050 [0.00127]
min. nickel


**Part No.
382823-5
Loose Piece**
**2-Position, Low-Profile
Handle Shunts with Open
Top** .100 [2.54] Centerlines
**Material and Finish**

Housings — Glass-filled thermoplas-
tic, 94V-0 rated
Contacts — Phosphor bronze or
beryllium copper, plated .000050
[0.00127] min. nickel

Housing Color	Part Numbers		
	Gold Plate ¹ .000015 [0.00038]	Gold Plate ¹ .000030 [0.00076]	Tin Plate .000100 [0.00254]
Black	881545-1	881545-2	881545-4
Black	880584-1	880584-2	—

¹In contact area.
**Dual In-Line Package
Switches (DIP)**
**Single Pole, Single Throw,
Side Actuated, Low Profile**
Contact Lead Spacing —

.100 x .300 [2.54 x 7.62]

Lead Length — .140 [3.56] below
mounting surface
Material and Finish

Housing — Glass-filled polyester,
94V-0 rated, black
Rocker — Thermoplastic, 94V-0 rated,
white
Spring Contacts and Leads —
Copper alloy with .000030 [0.00076] gold
in contact area and .000150 [0.00381] tin-
lead on solder tails and .000050
[0.00127] nickel underplate all over

No. of Switches	SPST Side Actuated Part No.		
	Unsealed ¹	Sealed	UV Sealed
2	1-435802-0	—	1-435802-3
3	435802-2	—	1-435802-4
4	435802-3	1-435802-5	1-382394-5
5	435802-4	1-435802-6	—
6	435802-5	1-435802-7	1-382394-7
7	435802-6	1-435802-8	—
8	435802-1	435802-9	382394-9
9	435802-7	—	—
10	435802-8	2-435802-0	2-382694-0
12	—	2-435802-2	—

¹All switches are bottom sealed.

Sealed Version Shown

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalogs 82162 and 124125

Dual In-Line Package
Switches (DIP)

Single Pole, Single Throw

Contact Lead Spacing —

.100 x .300 [2.54 x 7.62]

Lead Length — .140 [3.56] below
mounting surface

Material and Finish

Housing — Glass-filled polyester,
94V-0 rated, blueRocker — Thermoplastic, 94V-0 rated,
white

Spring Contacts and Leads —

Copper alloy with .000030 [0.00076] gold
in contact area and .000150 [0.00381] tin-
lead on solder tails and .000050
[0.00127] nickel underplate all over

Switches and Shunts (Continued)

No. of Switches	Standard Profile		Low Profile
	Unsealed ¹ Part No.	UV Sealed Part No.	Unsealed ¹ Part No.
3	3-435640-0	—	—
4	435640-2	3-382396-5	435668-3
5	435640-3	—	435668-4
6	435640-4	—	435668-5
7	435640-1	—	—
8	435640-5	—	435668-7
9	435640-6	—	—
10	435640-7	—	—

¹All switches are bottom sealed.

Standard Profile



Low Profile

Double Pole, Double Throw

Contact Lead Spacing —

.100 x .300 [2.54 x 7.62]

Lead Length — .140 [3.56] below
mounting surface

No. of Switches	DPDT Part No.	
	Low Profile Actuator	Extended Lever Actuator
1	435470-5	3-435470-1

Preprogrammed —
Screwdriver Slot Actuator
with Removable Tape Seal

Contact Lead Spacing —

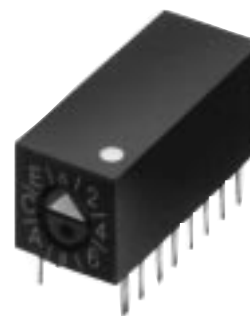
.100 x .300 [2.54 x 7.62]

Lead Length — .140 [3.56] below
mounting surface

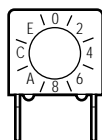
Material and Finish

Housing — Glass-filled polyester,
94V-0 rated, blackContacts — Copper alloy with gold over
nickel plating

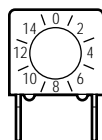
Switch Type	Actuator	Stamping Legend ¹	Switch Part No.
Hexadecimal w/Complement (16 Position)	Screwdriver Slot	I	53137-5
Hexadecimal w/Complement (16 Position)	Screwdriver Slot	I	54792-1
Hexadecimal w/Complement (16 Position)	Screwdriver Slot	II	54792-2
BCD w/Complement (10 Position)	Screwdriver Slot	III	53919-2
BCD w/Complement (10 Position)	Screwdriver Slot	III	54778-1
Input/Output (2 Position)	Screwdriver Slot	IV ²	53921-3

¹All switches marked with epoxy ink unless otherwise noted.

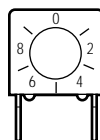
Stamping Legend



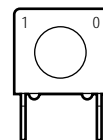
Style I



Style II



Style III



Style IV

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82162

Terminals and Splices

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Machine Applied Terminations, Open Barrel	432-442

Standard Terminals and Splices

PIDG Ring Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic

Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
						Loose Piece	Tape Mounted
26-24 238-475 [0.12-0.24]	.029 0.74	6 M3.5	.250 6.35	Yellow	.105 2.67	—	54311-1
26-22 202-810 [0.10-0.41]	.020 0.51	2 M2	.140 3.56	Yellow	.082 2.08	—	2-323912-1
		4	.203 5.16	Yellow	.082 2.08	—	2-323914-1
		6	.203 5.16	Yellow	.082 2.08	—	2-323915-2
		M3.5	.250 6.35	Yellow	.082 2.08	—	2-326875-1
		8 M4	.250 6.35	Yellow	.082 2.08	—	2-323916-1
24-20 320-1,290 [0.16-0.65]	.025 0.64	8 M4	.312 7.92	Natural	.100 2.54	—	1-323989-0
22-16 509-3,260 [0.26-1.65]	.033 0.84	4	.182 4.62	Red	.140 3.56	—	2-320882-1
			.218 5.54	Red	.125 3.18	—	2-320553-2
			.218 5.54	Red	.140 3.56	—	2-31880-1
			.250 6.35	Red	.125 3.18	—	2-323758-1
			.218 5.54	Red	.125 3.18	—	2-36149-2
		6 M3.5	.218 5.54	Red	.140 3.56	—	2-36150-1
			.250 6.35	Red	.125 3.18	51863 ¹	51863-1
			.281 7.14	Red	.125 3.18	—	2-36151-2
			.281 7.14	Red	.125 3.18	—	2-36152-1
			.312 7.92	Red	.125 3.18	—	2-323008-1
		8 M4	.281 7.14	Red	.140 3.56	—	2-326878-1
			.281 7.14	Red	.125 3.18	—	2-320554-1
			.281 7.14	Red	.140 3.56	—	2-31886-2
			.312 7.92	Red	.125 3.18	—	1-320551-1
			.312 7.92	Red	.140 3.56	—	2-31890-1

¹Available in small packaging quantities.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Ring Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic

Sleeve—Copper per ASTM B-152,
tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
						Loose Piece	Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	10	.281 7.14	Red	.125 3.18	—	2-320552-1
			.281 7.14	Red	.140 3.56	—	2-31887-1
			.312 7.92	Red	.125 3.18	—	2-36153-2
			.312 7.92	Red	.140 3.56	—	2-36154-2
			.344 8.74	Red	.140 3.56	32837¹	32837-1
		1/4 M6	.469 11.91	Red	.125 3.18	—	2-320571-2
			.469 11.91	Red	.140 3.56	—	2-31894-2
		5/16 M8	.469 11.91	Red	.140 3.56	—	2-31895-1
		3/8	.531 13.49	Red	.140 3.56	—	2-31897-2
		16-14 2,050-5,180 [1.04-2.62]	.033 0.84	4	.250 6.35	Blue	.150 3.81
.250 6.35	Blue				.170 4.32	—	2-328996-1
6 M3.5	.250 6.35			Blue	.170 4.32	—	2-320619-1
	.312 7.92			Blue	.170 4.32	—	2-326882-1
	.312 7.92			Blue	.150 3.81	—	51864-3
	.343 8.71			Blue	.150 3.81	—	2-36157-2
	.343 8.71			Blue	.170 4.32	—	2-36158-1
	.312 7.92			Blue	.170 4.32	53941-1¹	53941-2
8 M4	.312 7.92			Blue	.150 3.81	51864-1¹	51864-5
	.343 8.71			Blue	.150 3.81	—	2-320560-1
	.343 8.71			Blue	.170 4.32	—	2-320565-1
	.312 7.92			Blue	.170 4.32	53942-1	53942-2
10	.312 7.92			Blue	.150 3.81	51864-2¹	51864-4
	.343 8.71			Blue	.150 3.81	—	2-320574-2
	.343 8.71			Blue	.170 4.32	—	2-36160-1
	.469 11.91			Blue	.150 3.81	—	2-320563-2
1/4 M6	.469 11.91			Blue	.170 4.32	—	2-321045-1

¹Available in small packaging quantities.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Ring Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic

Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers			
						Loose Piece	Tape Mounted		
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	5/16 M8	.469 11.91	Blue	.150 3.81	—	2-320575-1		
			.469 11.91	Blue	.170 4.32	—	2-328998-1		
		3/8	.531 13.49	Blue	.150 3.81	—	2-320564-3		
			.531 13.49	Blue	.170 4.32	—	2-328999-1		
16-14D¹ 2,050-5,180 [1.04-2.62]	.050 1.27	6 M3.5	.281 7.14	Yellow/Blk.	.230 5.84	—	2-320631-1		
		8 M4	.343 8.71	Yellow/Blk.	.230 5.84	—	1-320627-0		
			.343 8.71	Yellow/Blk.	.250 6.35	—	2-35106-1		
		10	.343 8.71	Yellow/Blk.	.230 5.84	—	2-320630-2		
			.343 8.71	Yellow/Blk.	.250 6.35	—	2-34805-1		
		1/4 M6	.500 12.70	Yellow/Blk.	.250 6.35	—	2-323682-1		
		12-10 5,180-13,100 [2.62-6.64]	.042 1.07	6 M3.5	.281 7.14	Yellow	.230 5.84	—	2-320634-1
					.281 7.14	Yellow	.250 6.35	—	2-35149-1
.375 9.53	Yellow				.230 5.84	—	2-320567-2		
.375 9.53	Yellow				.250 6.35	—	2-35107-1		
8 M4	.312 7.92			Yellow	.230 5.84	—	1-35787-0		
	.375 9.53			Yellow	.230 5.84	—	2-320568-1		
	.375 9.53			Yellow	.250 6.35	—	2-35108-1		
	.312 7.92			Yellow	.230 5.84	—	1-324918-0		
10	.343 8.71			Yellow	.230 5.84	—	1-32883-0		
	.375 9.53			Yellow	.230 5.84	—	2-36161-2		
	.500 12.70			Yellow	.230 5.84	—	2-35273-2		
	1/4 M6			.531 13.49	Yellow	.230 5.84	—	2-320569-3	
5/16 M8	.531 13.49			Yellow	.250 6.35	—	2-35110-1		
	.531 13.49			Yellow	.230 5.84	—	2-320576-1		
	.531 13.49			Yellow	.250 6.35	—	2-35111-1		
	3/8			.593 15.06	Yellow	.230 5.84	—	2-320577-3	

¹Heavy duty for extra mechanical strength.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl
Terminal Body and Metallic Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	10	.312 7.92	Blue	.150 3.81	51861-4
		8 M4	.375 9.53	Yellow	.300 7.62	2-35605-2
		10	.375 9.53	Yellow	.300 7.62	2-35364-1
		1/4 M6	.500 12.70	Yellow	.300 7.62	2-323763-2
			.531 13.49	Yellow	.300 7.62	2-35345-1
		5/16 M8	.531 13.49	Yellow	.300 7.62	2-35346-1
		3/8	.593 15.06	Yellow	.300 7.62	1-35478-0



PIDG Ring Tongue Terminals (Insulation Restricting)

Material and Finish:

Insulation—Nylon
Terminal Body and Metallic Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727 or Nickel plated per QQ-N-290

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color Solid/Stripe	Wire Insulation Diameter Range	Part Numbers Loose Piece
24 475 [0.24]	.029 0.74	4	.203 5.16	Yellow/Blue	.031-.055 0.79-1.40	2-323914-2
		6 M3.5	.250 6.35	Yellow/Blue	.031-.055 0.79-1.40	2-326875-4
		6 M3.5	.218 5.54	Red/Green	.038-.110 0.97-2.79	2-36149-3 ¹
			.250 6.35	Red/Green	.038-.110 0.97-2.79	51863-2 ¹
		8 M4	.312 7.92	Red/Green	.038-.110 0.97-2.79	1-320551-2 ¹
		4	.218 5.54	Red/Red	.046-.110 1.17-2.79	52273-1 ¹
		6 M3.5	.218 5.54	Red/Red	.046-.110 1.17-2.79	2-36149-4 ¹
			.250 6.35	Red/Red	.046-.110 1.17-2.79	51863-3
		8 M4	.312 7.92	Red/Red	.046-.110 1.17-2.79	1-320551-3 ¹
		10	.312 7.92	Red/Red	.046-.110 1.17-2.79	2-36153-4 ¹
		1/4 M6	.469 11.91	Red/Red	.046-.110 1.17-2.79	2-320571-4 ¹
		5/16 M8	.469 11.91	Red/Red	.046-.110 1.17-2.79	2-320572-3 ¹
		6 M3.5	.218 5.54	Red/White	.056-.110 1.42-2.79	2-36149-5 ¹
			.250 6.35	Red/White	.056-.110 1.42-2.79	51863-4 ¹
		8 M4	.312 7.92	Red/White	.056-.110 1.42-2.79	1-320551-4 ¹
		10	.312 7.92	Red/White	.056-.110 1.42-2.79	2-36153-5 ¹
		1/4 M6	.469 11.91	Red/White	.056-.110 1.42-2.79	2-320571-5 ¹



¹Available in small packaging quantities.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Ring Tongue Terminals
(Insulation Restricting)

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic

Sleeve—Copper per ASTM B-152,
tin plated per MIL-T-10727 or Nickel
plated per QQ-N-290

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color Solid/Stripe	Wire Insulation Diameter Range	Part Numbers Loose Piece
16 2,800 [1.42]	.033 0.84	6 M3.5	.250 6.35	Blue/Blue	.063-.130 1.60-3.30	2-320561-3 ¹
			.312 7.92	Blue/Blue	.063-.130 1.60-3.30	51864-6 ¹
		8 M4	.312 7.92	Blue/Blue	.063-.130 1.60-3.30	1-51864-0 ¹
		10	.312 7.92	Blue/Blue	.063-.130 1.60-3.30	51864-7 ¹
		1/4 M6	.469 11.91	Blue/Blue	.063-.130 1.60-3.30	2-320563-3 ¹
14 4,234 [2.15]	.033 0.84	6 M3.5	.312 7.92	Blue/Green	.078-.130 1.98-3.30	51864-8 ¹
			.312 7.92	Blue/Green	.078-.130 1.98-3.30	1-51864-1 ¹
		10	.312 7.92	Blue/Green	.078-.130 1.98-3.30	51864-9 ¹
		1/4 M6	.469 11.91	Blue/Green	.078-.130 1.98-3.30	2-320563-4
12 6,654 [3.37]	.042 1.07	6 M3.5	.375 9.53	Yellow/Yellow	.095-.200 2.41-5.08	2-36161-5
			.375 9.53	Yellow/Yellow	.095-.200 2.41-5.08	2-320568-2 ¹
		10	.375 9.53	Yellow/Yellow	.095-.200 2.41-5.08	2-36161-3 ¹
		1/4 M6	.531 13.49	Yellow/Yellow	.095-.200 2.41-5.08	2-320569-5
10 12,066 [6.11]	.042 1.07	8 M4	.375 9.53	Yellow/Brown	.119-.200 3.02-5.08	2-320568-3 ¹
			.375 9.53	Yellow/Brown	.119-.200 3.02-5.08	2-36161-4
		1/4 M6	.531 13.49	Yellow/Brown	.119-.200 3.02-5.08	2-320569-6
		5/16 M8	.531 13.49	Yellow/Brown	.119-.200 3.02-5.08	2-320576-3

¹Available in small packaging quantities.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Ring Tongue Terminals (Radiation Resistant)

Material and Finish:

Terminal Body — Copper per QQ-C-576 with tin plating per MIL-T-10727 or gold plating per MIL-G-45204 over nickel per QQ-N-290

Insulation Support Sleeve — Copper per QQ-C-576 with tin plating per MIL-T-10727

Insulation Sleeve — PVF₂, natural color

Terminals and Splices (Continued)

Wire Range		Tongue Material Thickness Max.	Wire Ins. Dia. Max.	Stripe Color Code	Stud Size	Dim. W	Part Numbers	
AWG	CMA						Tin Plate	Loose
22-16	509-3,250	.033 0.84	.125 3.18	Red	6	.218 5.54		53406-1
					M3.5	.250 6.35		53407-1
					8 M4	.312 7.91		53408-1
					10	.312 7.92		53409-1
16-14	2,050-5,180	.033 0.84	.150 3.81	Blue	6	.250 6.35		53415-1
					M3.5	.312 7.92		53416-1
					8 M4	.312 7.92		53417-1
					10	.312 7.92		53418-1
					1/4 M6	.469 11.91		53419-1
12-10	5,180-13,100	.042 1.07	.230 5.84	Yellow	8 M4	.375 9.53		53424-1 ¹
					10	.375 9.53		53425-1 ¹
					1/4 M6	.531 13.48		53426-1 ¹

¹Brazed Body



PIDG Rectangular Tongue Terminals

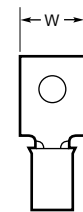
Material and Finish:

Insulation — Nylon except where noted.

Terminal Body and Metallic Sleeve — Copper per ASTM B-152 except where noted.

Plating — Tin per MIL-T-10727

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers
22-16 509-3,260 [0.26-1.65]	.033 0.84	5 M3	.277 7.04	Red	.140 3.56	2-327950-1
		6 M3.5	.237 6.02	Red	.140 3.56	2-327956-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.237 6.02	Blue	.150 3.81	2-327958-4
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	6 M3.5	.237 6.02	Yellow	.230 5.84	2-327960-1



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Spade Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic

Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
26-22 202-810 [0.10-0.41]	.029 0.74	4	.203 5.16	Yellow	.082 2.08	2-321035-1
			.218 5.54	Red	.140 3.56	1-327717-2
			.250 6.35	Red	.140 3.56	2-34541-1
		6 M3.5	.297 7.54	Red	.125 3.18	2-34080-1
			.297 7.54	Red	.140 3.56	2-326861-1
		8 M4	.375 9.53	Red	.125 3.18	2-32050-1
			.375 9.53	Red	.140 3.56	2-32053-1
		10	.375 9.53	Red	.125 3.18	2-32051-1
		6 M3.5	.244 6.20	Blue	.170 4.32	1-328281-1
			.297 7.54	Blue	.170 4.32	2-35559-1
22-16 509-3,260 [0.26-1.65]	.033 0.84	8 M4	.297 7.54	Blue	.170 4.32	2-321233-1
		10	.385 9.78	Blue	.170 4.32	2-32060-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.312 7.92	Yellow	.230 5.84	2-326859-1
		8 M4	.406 10.31	Yellow	.230 5.84	2-32588-1
			.406 10.31	Yellow	.250 6.35	2-35152-1
			.406 10.31	Yellow	.230 5.84	2-32589-1
		10	.406 10.31	Yellow	.230 5.84	2-32589-1



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Flanged Spade Tongue Terminals

Material and Finish:

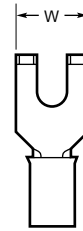
Insulation—Nylon

Terminal Body and Metallic

Sleeve—Copper per ASTM B-152,
tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	2 M2	.182 4.62	Red	.140 3.56	2-324608-1
			.250 6.35	Red	.125 3.18	2-322777-1
		6 M3.5	.296 7.52	Red	.125 3.18	2-32561-1
			.296 7.52	Red	.140 3.56	2-32562-1
		8 M4	.296 7.52	Red	.140 3.56	2-32562-3
			.416 10.57	Red	.125 3.18	2-32497-1
			.416 10.57	Red	.140 3.56	2-32498-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.294 7.47	Blue	.170 4.32	2-320861-1
		8 M4	.294 7.47	Blue	.170 4.32	2-320862-1
		10	.294 7.47	Blue	.170 4.32	2-320863-2
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	8 M4	.416 10.57	Yellow	.230 5.84	2-32510-1
		10	.416 10.57	Yellow	.250 6.35	2-324015-1



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Short Spring Spade Tongue Terminals

Material and Finish:

Insulation—Nylon
Terminal Body—Phosphor bronze per ASTM B-139, tin plated per MIL-T-10727
Metallic Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers		
						Tape Mounted		
26-22 202-810 [0.10-0.41]	.020 0.51	4	.203 5.16	Yellow	.082 2.08	52922-1		
		6 M3.5	.250 6.35	Yellow	.082 2.08	52924-1		
22-16 509-3,260 [0.26-1.65]	.033 0.84	4	.203 5.16	Red	.125 3.18	52927-1		
		5 M3	.250 6.35	Red	.125 3.18	52928-1		
		6 M3.5	.250 6.35	Red	.125 3.18	52929-1		
			.250 6.35	Red	.140 3.56	52929-3		
		8 M4	.244 6.20	Red	.140 3.56	55768-1		
			.375 9.53	Red	.125 3.18	52930-1		
			.375 9.53	Red	.140 3.56	52930-3		
		10	.406 10.31	Red	.125 3.18	52931-1		
		16-14 2,050-5,180 [1.04-2.62]	.033 0.84	5 M3	.250 6.35	Blue	.170 4.32	52934-1
				6 M3.5	.250 6.35	Blue	.170 4.32	52935-1
.250 6.35	Blue				.182 4.62	52935-3		
8 M4	.375 9.53			Blue	.170 4.32	52936-1		
	.375 9.53			Blue	.182 4.62	52936-3		
10	.406 10.31			Blue	.170 4.32	52937-1		
	.406 10.31			Blue	.182 4.62	52937-3		
12-10 5,180-13,100 [2.62-6.64]	.042 1.07			6 M3.5	.250 6.35	Yellow	.250 6.35	52941-1
		8 M4	.375 9.53	Yellow	.250 6.35	52942-1		
		10	.406 10.31	Yellow	.250 6.35	52943-1		



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG Long Spring Spade Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body—Phosphor bronze per ASTM B-139, tin plated per MIL-T-10727

Metallic Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
						Loose Piece	Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	6 M3.5	.250 6.35	Red	.125 3.18	—	52409-1
		8 M4	.281 7.14	Red	.125 3.18		52410-1
		10	.343 8.71	Red	.125 3.18	—	52411-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.250 6.35	Blue	.170 4.32	52420-1 ¹	52420-3
		8 M4	.281 7.14	Blue	.170 4.32	52421-1 ¹	52421-3
		10	.343 8.71	Blue	.170 4.32	52422-1 ¹	52422-3
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	6 M3.5	.312 7.92	Yellow	.250 6.35	52430-1	52430-3
		8 M4	.375 9.53	Yellow	.250 6.35	52431-1	—
		10	.375 9.53	Yellow	.250 6.35	52432-1	52432-3
		1/4 M6	.437 11.10	Yellow	.250 6.35	52433-1	—



¹Available in small packaging quantities.

PIDG Slotted Ring Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic Sleeve—Copper per ASTM B-152

Plating—Tin per MIL-T-10727

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
26-22 202-810 [0.10-0.41]	.020 0.51	6 M3.5	.250 6.35	Yellow	.082 2.08	2-323011-2



PIDG Hook Tongue Terminals

Material and Finish:

Insulation—Nylon

Terminal Body and Metallic Sleeve—Copper per ASTM B-152

Plating—Tin per MIL-T-10727

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	8 M4	.343 8.71	Blue	.170 4.32	2-320306-1



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

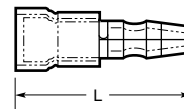
PIDG Shur-Plug Terminals

Material and Finish:

Insulation — Nylon
Terminal Body and Metallic Sleeve — Copper per ASTM B-152
Plating — Tin per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Dimension L Max.	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
16-14 2,050-5,180 [1.04-2.62]	.790 20.07	Blue	.170 4.32	2-324225-1

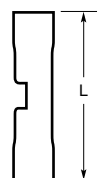
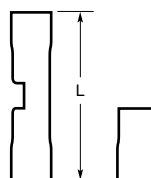


.156 Series

PIDG Butt Splices

Material and Finish:

Insulation Sleeve — Nylon
Splice Body and Insulation Support Sleeve — Copper per ASTM B-152, tin plated per MIL-T-10727

Standard and
Radiation
ResistantStep Down
Assembly¹

Wire Size Circular Mils ² [mm ²]	Style	Dimension L Max.	Splice Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
					Loose Piece	Tape Mounted
22-16 ⁴ 509-3,260 [0.26-1.65]	Standard	1.265 32.13	Red	.125 3.18	—	2-320559-4
16-14 2,050-5,180 [1.04-2.62]		1.265 32.13	Blue	.150 3.81	—	2-320562-3
16-14 22-18 2,050-5,180 to 509-1,900 [1.04-2.62] [0.26-0.96]		1.265 32.13	Blue	.150/.115 3.81/2.92	—	2-327583-1
22-16 ⁴ 509-3,260 [0.26-1.65]	Step Down Assembly	1.265 32.13	Natural w/ Red Stripes	.125 3.18	53548-1 ³	—
16-14 2,050-5,180 [1.04-2.62]		1.265 32.13	Natural w/ Blue Stripes	.150 3.81	53549-1 ³	—
12-10 5,180-13,100 [2.62-6.64]		1.656 42.06	Natural w/ Yellow Stripes	.220 5.59	53550-1 ³	—

¹Includes adapter insert.

²When using two or more wires in either end of a butt splice, the combined cross sectional area must be within the (CMA) circular mil area range listed.

³Available in small packaging quantities.

⁴22-16 splices are 22-18 range in accordance with MIL-T-7928.

PIDG Knife Disconnect Splices

Material and Finish:

Insulation — Nylon
Splice Body and Metallic Sleeve — Copper per ASTM B-152, tin plated per MIL-T-10727

Wire Size Circular Mils [mm ²]	Splice Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
22-16 509-3,260 [0.26-1.65]	Red	.140 3.56	2-32446-1



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PIDG FASTON Receptacles

Material and Finish:

Insulation—Nylon

Receptacle Body—Brass per ASTM B-36, tin plated per MIL-T-10727

Metallic Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Receptacle Style:

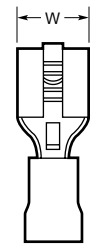
A—No dimple, with wire stop

B—Dimple, with wire stop

Terminals and Splices (Continued)

.250 Series

Wire Size Circular Mills [mm ²]	Receptacle Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Fits Tab Thickness	Part Numbers		
						Loose Piece	Tape Mounted	Strip Form
22-18 509-1,900 [0.26-0.96]	B	.300 7.62	Red	.140 3.56	.032 0.81	640903-1 ²	640903-2	640902-1
16-14 2,050-5,180 [1.04-2.62]	B	.300 7.62	Blue	.170 4.32	.032 0.81	640905-1 ²	640905-2	640904-1
14-12 3,831-6,470 ³ [1.94-3.28]	B	.300 7.62	Green	.250 6.35	.032 0.81	42844-1 ^{1,2,4}	42844-3 ^{1,4}	—
		.300 7.62	Green	.250 6.35	.032 0.81	42844-2 ^{1,3,5}	—	—
12-10 5,180-13,100 [2.62-6.64]	B	.300 7.62	Yellow	.250 6.35	.032 0.81	640907-1 61198-2 ⁵	640907-2	640906-1



.250 Series

¹Not UL listed or CSA certified.

²Available in small packaging quantities.

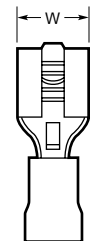
³Wire range is limited, as noted.

⁴Contact Customer Assistance Hotline for Tooling Application.

⁵Receptacle Material = Phos. Brz.

.205 Series

Wire Size Circular Mills [mm ²]	Receptacle Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Fits Tab Thickness	Part Numbers		
						Loose Piece	Tape Mounted	Strip Form
22-18 509-1,900 [0.26-0.96]	B	.250 6.35	Red	.135 3.43	.020 0.51	640909-1 ¹	640909-2	—
	B				.032 0.81	640911-1	640911-2	—
16-14 2,050-5,180 [1.04-2.62]	B	.250 6.35	Blue	.170 4.32	.020 0.51	640913-1	640913-2	—
	B				.032 0.81	640915-1	640915-2	—

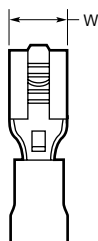


.205 Series

¹Available in small packaging quantities.

.187 Series

Wire Size Circular Mills [mm ²]	Receptacle Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Fits Tab Thickness	Part Numbers		
						Loose Piece	Tape Mounted	Strip Form
26-24 238-475 [0.12-0.24]	B	.230 5.84	Yellow	.082 2.08	.020 0.51	641321-1 ²	641321-2 ³	—
22-18 509-1,900 [0.26-0.96]	B	.230 5.84	Red	.135 3.43	.020 0.51	640917-1 ¹	640917-2	640916-1
16-14 2,050-5,180 [1.04-2.62]	B	.230 5.84	Blue	.170 4.32	.020 0.51	640919-1 ¹	640919-2	640918-1



.187 Series

¹Available in small packaging quantities.

²Contact Customer Assistance Hotline for Tooling Application.

³Not UL listed or CSA certified.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

PIDG FASTON Receptacles

Material and Finish:

Insulation—Nylon

Receptacle Body—Brass per
ASTM B-36, tin plated per MIL-T-10727Metallic Sleeve—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Receptacle Style:

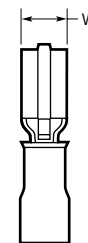
A—No dimple, with wire stop

B—Dimple, with wire stop

Terminals and Splices (Continued)

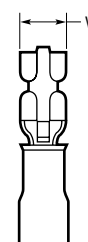
.110 Series, Standard

Wire Size Circular Mills [mm ²]	Receptacle Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Fits Tab Thickness	Part Numbers		
						Loose Piece	Tape Mounted	Strip Form
22-18 509-1,900 [0.26-0.96]	A	.148 3.76	Natural	.110 2.79	.020 0.51	61060-1 ^{1,2,3}	61060-2 ^{1,3}	61059-2 ^{1,3}
	B	.148 3.76	Natural	.110 2.79	.032 0.81	60894-1 ^{1,2,3}	60894-2 ^{1,3}	—

¹Not UL listed or CSA certified.²Available in small packaging quantities.³Contact Customer Assistance Hotline for Tooling Application..110 Series,
Standard

.110 Series, Low Insertion

Wire Size Circular Mills [mm ²]	Receptacle Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Fits Tab Thickness	Part Numbers		
						Loose Piece	Tape Mounted	Strip Form
22-18 509-1,900 [0.26-0.96]	A	.160 4.06	Red	.140 3.56	.016 0.41	640921-1 ¹	—	—
					.020 0.51	640923-1 ²	640923-2	640922-1
					.032 0.81	640925-1 ²	640925-2	—
16-14 2,050-5,180 [1.04-2.62]	B	.160 4.06	Blue	.140 3.56	.016 0.41	640927-1 ¹	—	—
	A	.160 4.06	Blue	.140 3.56	.020 0.51	640929-1 ²	640929-2	—
					.032 0.81	640931-1	640931-2	—

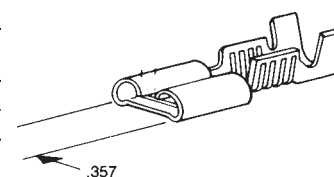
¹Not UL listed or CSA certified.²Available in small packaging quantities..110 Series,
Low
Insertion312 Series Receptacles
Straight Insulation Support

Premier Line

(0.312 x .032 tab fit)

Stock Thickness: .016

Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
16-12	.160 or (2) .110 Max.	Tin Plated Brass	61399-1
14-10	.150-.200	Silver Plated Brass	63820-1 ¹



For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

PIDG FASTON Receptacles

Line Splice Connector for "250" Series Terminals

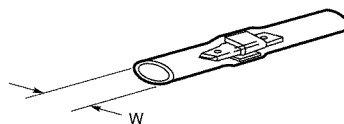
Material

Insulation — Vinyl

Color — Natural

Splice Body — Brass per ASTM B-36

Plating — Tin per MIL-T-10727 except where noted.



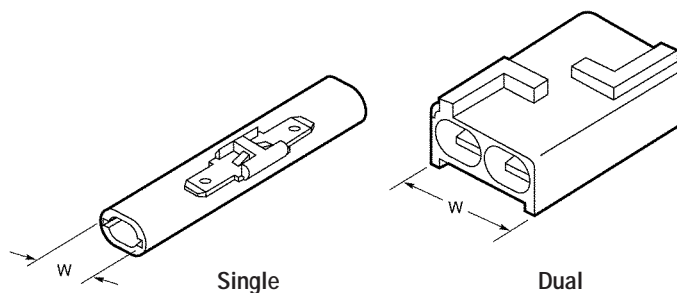
Wire Size	Plating	Dim. W	Part Numbers Loose Pieces
22-10	Unplated	.409 10.39	1-321235-0
	Tin	.409 10.39	1-321235-1

Line Splice Connector for "187" Series Terminals

Material

Housing — Nylon

Splice Body — Brass per ASTM B-36



Type	Housing Color	Dim. W	Temperature Rating	Part Numbers Loose Pieces
Single	Natural	.345 8.76	—	360035-1
Dual	Natural	.650 16.51	105°C	360025-1

For Complete Product Information , Order Catalog 82004.

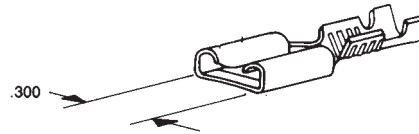
Standard Terminals and Splices

250 Series FASTON
Receptacles Straight
Insulation Support

Premier Line

(0.250 x .032 tab fit)

Terminals and Splices (Continued)



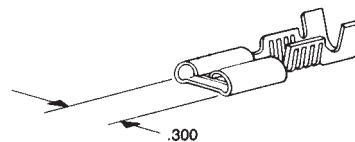
Wire Range AWG	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
24-20	.030-.070 0.76-1.78	.016 0.41	Tin Plated Brass	61368-1
22-18	.060-.100 1.52-2.54	.016 0.41	Brass	42640-1
			Tin Plated Brass	42640-2
18-14	.060-.110 1.52-2.79	.018 0.46	Tin Plated Brass	61375-1
	.060-.110 1.52-2.79	.016 0.41	Nickel Plated Steel	63688-1
	.120-.170 3.05-4.32	.016 0.41	Nickel Plated Steel	42219-1
	.210-.265 5.33-6.73	.018 0.46	Nickel Plated Steel	42579-1
16-12 or (2) 18	.210-.265 5.33-6.73	.018 0.46	Nickel Plated Steel	42579-1
14-10 (2) 14 .140 max. [5.71-6.98]	.225-.275 or (2) [5.71-6.98]	.018 0.46	Tin Plated Brass	60635-1 ¹
			Brass	60635-3 ¹
12-10	.150-.200 3.81-50.8	.018 0.46	Tin Plated Brass	62428-2
			Tin Phos. Brz.	62428-3
10-8 (2) 12	.230-.280 (2) .160 [5.84-7.11]	.018 0.46	Tin Plated Brass	62998-2 ²

¹9,600 CMA max.

²UL/CSA—10 AWG only.

Budget Line

(0.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.090-.130 2.29-3.30	Brass	42510-1
		Tin Plated Brass	42510-2
20-14	.085-.135 2.16-3.43	Brass	63648-1¹
18-14	.120-.170 3.05-4.32	Brass	42400-1
		Tin Plated Brass	42400-2
		Silver Plated Brass ²	61107-1

¹.012 stock (multiple circuit housings).

²Stress relieved

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

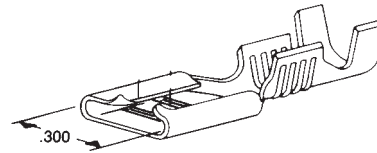
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

250 Series FASTON Receptacles Straight Insulation Support

Economy Line

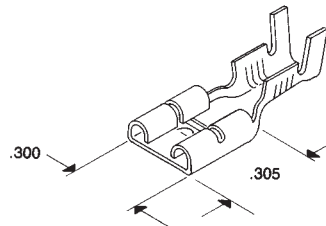
(0.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.090-.130 2.29-3.30	Brass	42743-1
		Tin Plated Brass	42743-2
18-14	.120-.170 3.05-4.32	Brass	42660-1
		Tin Plated Brass	42660-2
	.150-.210 3.81-5.33	Brass	42692-1
		Tin Plated Brass	42692-2

Low Insertion Force Line — Premier

(.250 x .032 tab fit)



Wire Range AWG	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
22-18	.090-.130 2.29-3.30	.016 0.41	Tin Plated Brass	63609-2
18-14	.120-.170 3.05-4.32	.018 0.46	Tin Plated Brass	63537-2
		.016 0.41	Nickel Plated Steel	63674-1
14-10	.150-.200 3.81-5.08	.018 0.46	Silver Plated Brass	63435-1 ¹
		.225-.275 or (2) .190 max.	Tin Plated Brass	63539-1 ¹

Low Insertion Force Line — Budget

(.250 x .032 tab fit)

Wire Range AWG	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
18-14	.120-.170 3.05-4.32	.016 0.41	Brass	63306-1
			Tin Plated Brass	63306-2
16-12 or (2) 18	.210-.265 or (2) .220 max.	.018 0.46	Brass	63757-1
14-10	.150-.200 3.81-5.08	.018 0.46	Tin Plated Brass	63365-2 ¹

¹9,600 CMA max.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

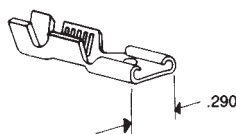
Standard Terminals and Splices

250 Series FASTON
Receptacles Straight
Insulation Support

AMPLIVAR FASTON
Receptacles (for use with
magnet wire)

(0.250 x .032 tab fit)
Stock Thickness: .016

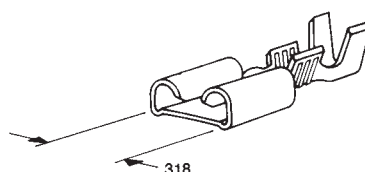
Terminals and Splices (Continued)



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
18-14 or (2) 17	.120-.170 or (2) .060 Max.	Tin Plated Brass	60385-2

Premier Line FASTON
Receptacles for Hermetic
Header Tabs

(0.250 x .032 tab fit)
Stock Thickness: .018



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
14-10	.150-.200 3.81-5.08	Tin Plated Brass ¹	42437-2 ³
		Tin Plated Phos. Brz. ²	42437-5 ³

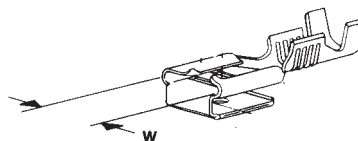
¹Recommended for external use only.

²For internal or external use.

³9,600 CMA max.

Economy Line
(Receptacle and Tab
Combination)

(.250 x .032 tab fit)



Wire Range AWG	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
22-18	.060-.100 1.52-2.54	.015 0.38	Brass	61988-1
			Tin Plated Brass	61988-2
18-14	.120-.170 3.05-4.32	.015 0.38	Brass	61944-1
			Tin Plated Brass	61944-2
	.120-.170 3.05-4.32	.032-.016 ¹ 0.81-0.41	Brass	62109-1
			Tin Plated Brass	62109-2
	.120-.170 3.05-4.32	.015 0.38	Brass	62223-1 ²
			Tin Plated Brass	62223-2
14-10	.150-.200 3.81-5.08	.015 0.38	Brass	62253-1
			Tin Plated Brass	62253-2

¹Dual thickness.

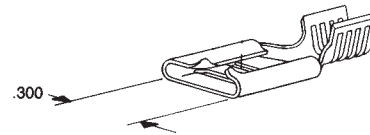
²Stress relieved.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

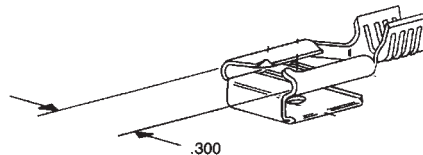
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices**250 Series FASTON
Receptacles Straight
Non-Insulation Support****Economy Line**(.250 x .032 tab fit)
Stock Thickness: .016**Terminals and Splices (Continued)**

Wire Range AWG	Material and Finish	Terminal Part No.
18-14	Brass	42845-1
	Tin Plated Brass	42845-2

**Moldable Line**(.250 x .032 tab fit)
Stock Thickness: .016

Wire Range AWG	Material and Finish	Terminal Part No.
18-14	Brass	60938-1
	Tin Plated Brass	60938-2

**Receptacle and
Tab Combination**(.250 x .032 tab fit)
Stock Thickness: .015

Wire Range AWG	Material and Finish	Terminal Part No.
18-14	Pre-Tin Brass	62276-1
14-10 ¹	Pre-Tin Brass	62068-1

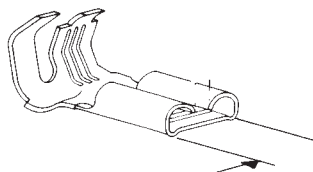
¹9,600 CMA max.**BLUE** part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.**For Complete Product Information , Order Catalog 82004.**

Standard Terminals and Splices

250 Series FASTON
Receptacles Flag Tab-Lok
Insulation Support

Premier Line Flag

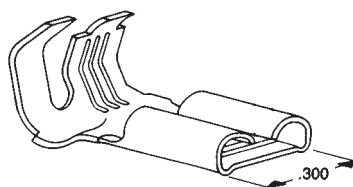
(.250 x .032 tab fit)
Insulation Diameter: .110-.210



Wire Range AWG	Stock Thickness	Material and Finish	Terminal Part No.
18-12	.018 0.46	Nickel Plated Steel	41531-1
	.016 0.41	Nickel Plated Steel	42404-1

Budget Line Flag

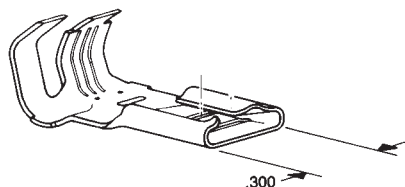
(.250 x .032 tab fit)
Insulation Diameter: .110-.210
Stock Thickness: .016



Wire Range AWG	Material and Finish	Terminal Part No.
18-12	Brass	42511-1
	Tin Plated Brass	42511-2

Economy Line Flag

(.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
22-16	.070-.130 1.78-3.30	Brass	63577-1
18-12	.110-.210 2.79-5.33	Brass	42742-1
		Tin Plated Brass	42742-2

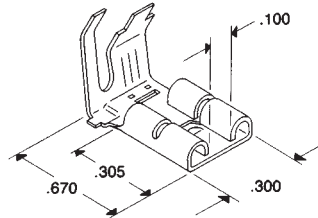
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

250 Series FASTON
Receptacles Flag Tab-Lok
Insulation Support

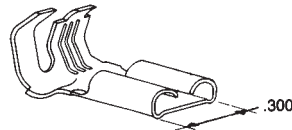
Premiere Line Flag
(.250 x .032 tab fit)

Terminals and Splices (Continued)

Wire Range AWG	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
18-12	.110-.210 2.79-5.33	.016 0.41	Brass	63445-1
			Tin Plated Brass	63445-2
			Nickel Plated Steel	63604-1
		.018 0.46	Tin Plated Brass	63555-2

Moldable Line Flag

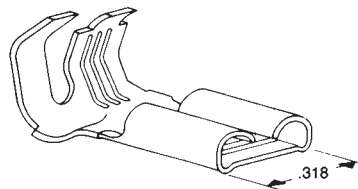
(.250 x .032 tab fit)
Insulation Diameter: .110-.210



Wire Range AWG	Stock Thickness	Material and Finish	Terminal Part No.
18-12	.016 0.41	Brass	60641-1

**Flag FASTON Receptacles for
Hermetic Header Tabs**

(.250 x .032 tab fit)
Insulation Diameter: .110-.210
Stock Thickness: .018



Wire Range		Material and Finish	Terminal Part No.
AWG	CMA		
18-12	—	Tin Phos. Brz.	60274-2 ³
12-10	6,000-10,600	Tin Plated Brass	60851-1 ¹
		Silver Plated Brass	60851-2 ¹
		Silver Plated Phos. Brz.	42563-6 ²
		Tin Plated Phos. Brz.	42563-8 ²

¹Recommended for external use only.

²For internal or external use.

³Left hand for internal or external use.

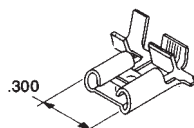
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

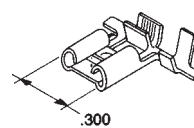
250 Series FASTON
Receptacles Flag "F—Crimp"
Insulation Support

Premier Line Flag
(.250 x .032 tab fit)
Stock Thickness: .016

Terminals and Splices (Continued)



Right Handed Flag



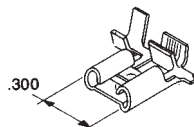
Left Handed Flag

Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.060-.100 1.52-2.54	Brass	62813-1 ¹
		Tin Plated Brass	62813-2 ¹
		Tin Plated Brass	62814-2 ²
18-14	.110-.160 2.79-4.06	Brass	63011-1 ¹
		Tin Plated Brass	63011-2 ¹
		Tin Plated Brass	63012-2 ²

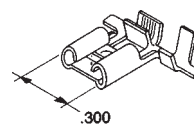
¹Left handed flag.

²Right handed flag.

Budget Line Flag
(.250 x .032 tab fit)
Stock Thickness: .016



Right Handed Flag



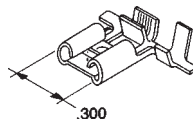
Left Handed Flag

Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.060-.100 1.52-2.54	Brass	62718-1 ²
		Tin Plated Brass	62718-2 ²
18-14	.110-.160 2.79-4.06	Brass	63009-1 ¹
		Tin Plated Brass	63009-2 ¹
		Brass	63010-1 ²
		Tin Plated Brass	63010-2 ²

¹Left handed flag.

²Right handed flag.

Economy Line Flag
(.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
18-14	.110-.160 2.79-4.06	Brass	63096-1

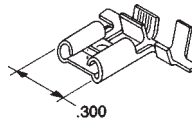
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

250 Series FASTON Receptacles Flag "F—Crimp" Insulation Support

Low Insertion Force Line

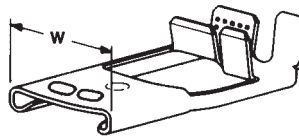
(.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
18-14 2 (18)	.110-.200 2.79-5.08	Brass	63538-1

Commercial Line Flag

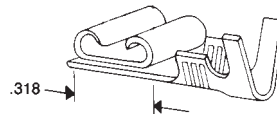
(.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Dim. W	Material and Finish	Terminal Part No.
24-20	.048-.078 1.22-1.98	.293 7.44	Tin Plated Brass	60736-2
22-16	.090-.140 2.29-3.56	.293 7.44	Brass	62418-1
			Tin Plated Brass	62418-2
18-14	.090-.140 2.29-3.56	.300 7.62	Brass	60290-1
			Tin Plated Brass	60290-2

Reversible Flag FASTON Receptacles Straight End Feed

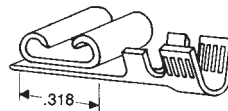
(.250 x .032 tab fit)
Stock Thickness: .016



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
18-14	.090-.130 2.29-3.30	Brass	62048-1
		Tin Plated Brass	62048-2
	.170-.220 4.32-5.59	Tin Plated Brass	60764-2

Reversible Flag FASTON Receptacles for Hermetic Header Tabs Side Feed

(.250 x .032 tab fit)
Stock Thickness: .018



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.085-.150 2.16-3.81	Tin Plated Phos. Brz.	63137-1
16-12	.130-.170 3.30-4.32	Tin Plated Phos. Brz. ¹	61188-1 ²

¹For internal or external use.

²Bends terminal 90°. For 180° bend use applicator number 687616-2 with Press 694234-7.

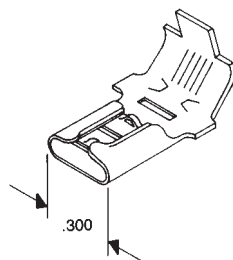
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

250 Series FASTON Receptacles Flag Tab-Lok Non-Insulation Support

Economy Line Flag

(.250 x .032 tab fit)
Stock Thickness: .016



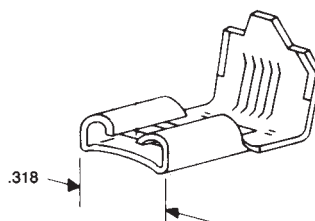
Wire Range AWG	Material and Finish	Terminal Part No.
18-12	Pre-Tin Brass	61177-2 ¹
12-10 or (2) 14	Brass	62011-1 ²
	Tin Plated Brass	62011-2 ²

¹Right handed flag.

²Right or left handed. Carrier is in front for through splicing.

Flag FASTON Receptacles for Hermetic Header Tabs

Stock Thickness: .018



Wire Range AWG	Material and Finish	Terminal Part No.
18-12	Tin Plated Phos. Brz.	62056-6 ²
	Tin Plated Brass	62056-3 ²
	Tin Plated Brass	62056-4 ⁴
12-10	Tin Plated Brass	62057-3 ³
	Silver Plated Phos. Brz.	62057-7 ⁴
	Tin Plated Brass	62022-2 ¹

¹Right or left handed. Carrier is in front for through splicing.

²Right hand. Reverse reel.

³Right hand.

⁴Left hand.

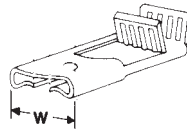
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

250 Series FASTON
Receptacles Flag "F—Crimp"
Non-Insulation Support

Commercial Line Flag

(.250 x .032 tab fit)
Stock Thickness: .018



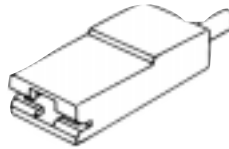
Wire Range AWG	Dim. W	Material and Finish	Terminal Part No.
12-10 ¹ (2) 12 ² (2) 14	.300 7.62	Tin Plated Brass	60960-3

¹Stranded or solid.

²Stranded only.

Post-Insulation Pods for FASTON Receptacles

Part Number: 171706-1
Accepts Terminals:
"250" Series FASTON
Receptacles 41729, 170183,
170187, 170213
Package Quantity: 2000



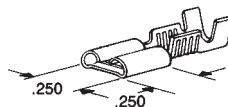
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

205 Series FASTON
Receptacles Straight
Insulation Support and
Straight Non-Insulation
Support

Premiere Line Insulation Support

See below for tab configuration

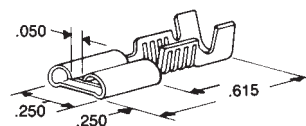


Wire Range AWG	Fits Tab	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
22-18	.032 0.81	.085-.125 2.16-3.17	.012 0.30	Tin Plated Brass	42299-2
	.020 0.51	.085-.125 2.16-3.17	.012 0.30	Tin Plated Brass	42198-2
18-14	.032 0.81	.130-.180 3.30-4.57	.016 0.41	Tin Plated Brass	42233-2

Economy Line Insulation Support

Stock Thickness: .012

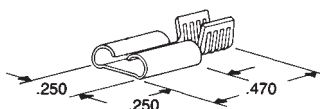
See below for tab configuration



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.020 0.51	.085-.125 2.16-3.17	Brass	42710-1
	.032 0.81	.085-.125 2.16-3.17	Tin Plated Brass	42710-2
18-14	.050 1.27	.130-.180 3.30-4.57	Tin Plated Brass	60904-2

Premiere Line Non-Insulation Support

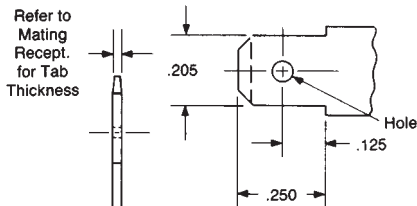
See below for tab configuration



Wire Range AWG	Fits Tab	Stock Thickness	Material and Finish	Terminal Part No.
22-18	.020 0.51	.012 0.30	Tin Plated Brass	42197-2 ¹
18-14	.032 0.81	.016 0.41	Phos. Brz.	42239-4

¹No slots.

Tab Configuration Dimensions Mates with all "205" Series Receptacles



Configuration 1

For Complete Product Information , Order Catalog 82004.

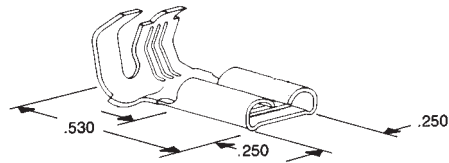
Standard Terminals and Splices

205 Series FASTON
Receptacles Flag
Tab-Lok Insulation Support

Premiere Line Flag

Insulation Diameter: .110-.170

See below for tab configuration

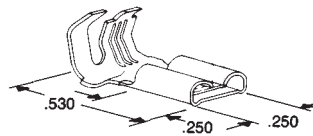


Wire Range AWG	Fits Tab	Stock Thickness	Material and Finish	Terminal Part No.
22-18	.020 0.51	.012 0.30	Brass	42199-1
			Tin Plated Brass	42199-2
20-14	.032 0.81	.016 0.41	Tin Plated Brass	42234-2

Economy Line Flag

Insulation Diameter: .100-.170

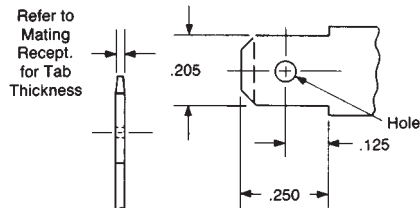
See below for tab configuration



Wire Range AWG	Fits Tab	Stock Thickness	Material and Finish	Terminal Part No.
20-14	.032 0.81	.016 0.41	Brass	60195-1 ¹
			Tin Plated Brass	60195-2 ¹

¹Moldable.

Tab Configuration Dimensions Mates with all "205" Series Receptacles



Configuration 1

For Complete Product Information , Order Catalog 82004.

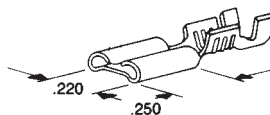
Standard Terminals and Splices

187 Series FASTON
Receptacles Straight
Insulation Support

Premiere Line

Stock Thickness: .012

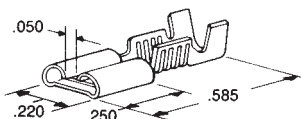
Terminals and Splices (Continued)



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.020	.040-.070	Tin Plated Brass	60573-1
	0.51	1.02-1.78	Brass	60573-2
	.020	.060-.110	Tin Plated Brass	62138-1
	0.51	1.52-2.79	Brass	62138-2
	.032	.040-.070	Tin Plated Brass	62181-1
	0.81	1.02-1.78		
	.020	.040-.070	Tin Plated Brass	62187-1
	0.51	1.02-1.78		
20-16	.020	.090-.130	Brass	42452-1
	0.51	2.29-3.30	Tin Plated Brass	42452-2
	.020	.090-.130	Nickel Plated Steel	60621-1
	0.51	2.29-3.30		
	.032	.090-.130	Brass	61758-1
	0.81	2.29-3.30		
18-16 or (2) 18	.020	.060-.110	Brass	62137-1
	0.51	1.52-2.79	Tin Plated Brass	62137-2
	.020 (2)	.105 max.	Brass	60487-1
	0.51	2.67	Tin Plated Brass	60487-2
	.032 (2)	.105 max.	Tin Plated Brass	61945-1
	0.81	2.67		

Budget Line

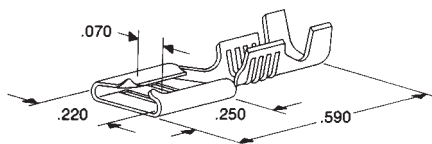
Insulation Diameter: .090-.130
Stock Thickness: .012



Wire Range AWG	Fits Tab	Material and Finish	Terminal Part No.
20-16	.020	Brass	42617-1
	0.51	Tin Plated Brass	42617-2
	.032	Brass	61919-1
	0.81		

Economy Line

Stock Thickness: .012



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.020	.090-.130	Brass	42801-1
	0.51	2.29-3.30	Tin Plated Brass	42801-2
	.032	.090-.130	Brass	60196-1
	0.81	2.29-3.30	Tin Plated Brass	60196-2

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

187 Series FASTON
Receptacles Straight
Insulation Support

Low Insertion Force
Line—Budget

Stock Thickness: .012

Terminals and Splices (Continued)

Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.020	.090-.130	Brass	63475-1
	0.51	2.29-3.30	Tin Plated Brass	63475-2
	.032	.090-.130	Tin Plated Brass	63477-2
	0.81	2.29-3.30		

Commercial Line

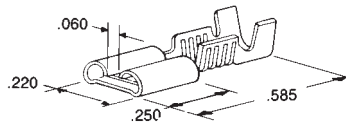
Stock Thickness: .014



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.020	.150-.190	Brass	62016-1
	0.51	3.81-4.83	Tin Plated Brass	62016-2
18-14 or 2 (16)	.020	.180-.230 or (2) .110 max.	Brass	60742-1
	0.51		Tin Plated Brass	60742-2
	.032	.180-.230 or (2) .110 max.	Brass	63596-1
	0.81			

Moldable Line

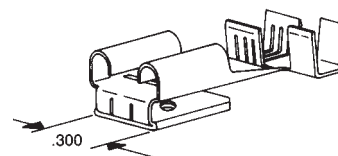
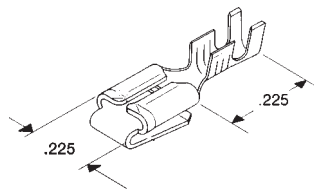
Insulation Diameter: .090-.130
Stock Thickness: .012



Wire Range AWG	Fits Tab	Material and Finish	Terminal Part No.
20-16	.020	Brass	60214-1
	0.51	Tin Plated Brass	60214-2

Commercial Line (Receptacle and Tab Combination)

Tab Stock Thickness: .020
Receptacle Stock
Thickness: .014



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.020	.090-.130	Tin Plated Brass	62026-1
	0.51	2.29-3.30	Brass	62026-2
	.032	.090-.130	Brass	63646-1
	0.81	2.29-3.30		
	.020	.060-.110	Tin Plated Brass	62139-1
	0.51	1.52-2.79		

For Complete Product Information , Order Catalog 82004.

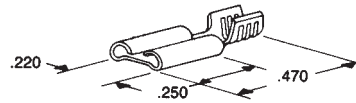
Standard Terminals and Splices

187 Series FASTON
Receptacles Straight
Non-Insulation Support
Receptacles

Premiere Line

Stock Thickness: .012

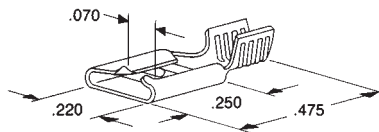
Terminals and Splices (Continued)



Wire Range AWG	Fits Tab	Material and Finish	Terminal Part No.
20-16	.020 0.51	Tin Plated Brass	42373-2

Economy Line

Stock Thickness: .012

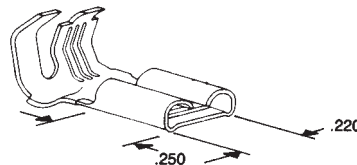


Wire Range AWG	Fits Tab	Material and Finish	Terminal Part No.
20-16	.020 0.51	Brass	42799-1
		Tin Plated Brass	42799-2

187 Series FASTON
Receptacles Flag
Tab-Lok Insulation Support

Premiere Line Flag

Stock Thickness: .012



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.020 0.51	.110-.170 2.79-4.32	Brass	42486-1
			Tin Plated Brass	42486-2
			Nickel Plated Steel	42486-3
	.032 0.81	.110-.170 2.79-4.32	Tin Plated Brass	62591-1

For Complete Product Information , Order Catalog 82004.

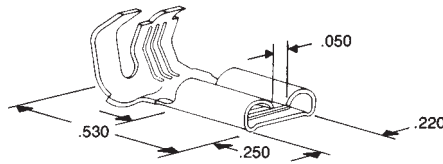
Standard Terminals and Splices

187 Series FASTON
Receptacles Insulation
Support

Budget Line Flag

Stock Thickness: .012

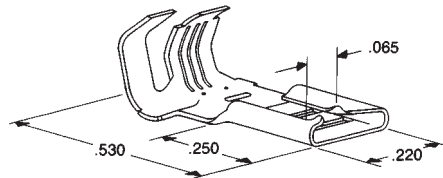
Terminals and Splices (Continued)



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
20-16	.020 0.51	.170-.225 4.32-5.71	Brass	62817-1
		.110-.170 2.79-4.32	Brass	42618-1
			Tin Plated Brass	42618-2

Economy Line Flag

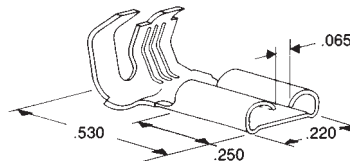
Insulation Diameter: .110-.170
Stock Thickness: .012



Wire Range AWG	Fits Tab	Material and Finish	Terminal Part No.
20-16	.020 0.51	Brass	42800-1
		Tin Plated Brass	42800-2
	.032 0.81	Brass	60529-1
		Tin Plated Brass	60529-2

Moldable Line Flag

Insulation Diameter: .110-.170
Stock Thickness: .012



Wire Range AWG	Fits Tab	Material and Finish	Terminal Part No.
20-16	.020 0.51	Brass	61029-1
		Tin Plated Brass	61029-2

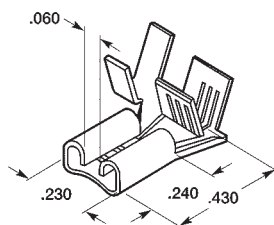
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

187 Series FASTON
Receptacles Flag
"F—Crimp" 125 Series

187 Series Center Strip Flag
Insulation Support

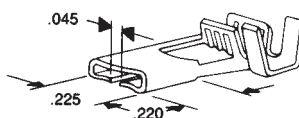
Stock Thickness: .016



Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
18-14	.032 0.81	.060-.150 1.52-3.81	Brass	63316-1
	.020 0.51	.060-.150 1.52-3.81	Brass	63512-1

187 Series Commercial Line
Flag Insulation Support

Stock Thickness: .012

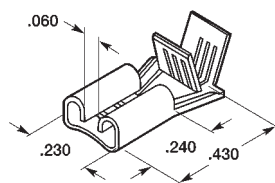


Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.020 0.51	.060-.070 1.52-1.78	Brass	62085-1
			Tin Plated Brass	62085-2
20-16	.020 0.51	.090-.130 2.29-3.30	Brass	60755-1
			Tin Plated Brass	60755-2

187 Series Center Strip Flag
Non-Insulation Support

(1.87 x .032 tab fit)

Stock Thickness: .016



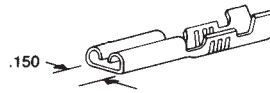
Wire Range AWG	Material and Finish	Terminal Part No.
18-14	Brass	63317-1

For Complete Product Information , Order Catalog 82004.

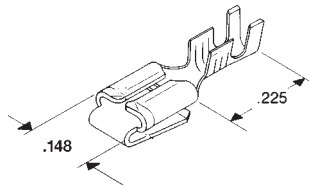
Standard Terminals and Splices

110 Series FASTON
Receptacles Straight
Insulation SupportFASTON Receptacles
Stock Thickness: .010

Terminals and Splices (Continued)



Wire Range AWG	Fits Tab ¹ Type	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
18-14	1	.020 0.51	.040-.060 1.02-1.52	Pre-Tin Brass	42067-1
		.016 0.41	.040-.060 1.02-1.52	Pre-Tin Brass	42415-1
22-18	1	.020 0.51	.060-.100 1.52-2.54	Pre-Tin Brass	42068-1
		.012 0.30	.060-.100 1.52-2.54	Pre-Tin Brass	60415-1
		.016 0.41	.060-.100 1.52-2.54	Pre-Tin Brass	60118-1
		.032 0.81	.060-.100 1.52-2.54	Pre-Tin Brass	60197-1
	3	.032 0.81	.060-.100 1.52-2.54	Pre-Tin Brass	60577-1
	2	.020 0.51	.120-.140 3.05-3.56	Pre-Tin Brass	60729-1
	1	.025 0.63	.120-.140 3.05-3.56	Pre-Tin Brass	61158-1
		.020 0.51	.090-.130 2.29-3.30	Pre-Tin Brass	62094-1
20-16	—	.016 0.41	.090-.130 2.29-3.30	Pre-Tin Brass	62523-1 ²
	1	.020 0.51	.120-.140 3.05-3.56	Pre-Tin Brass	61400-1
			.060-.100 1.52-2.54	Pre-Tin Brass	61408-1
		.032 0.81	.120-.140 3.05-3.56	Pre-Tin Brass	62050-1
		.020 0.51	.150-.170 3.81-4.32	Tin Plated Brass	62191-1

¹See page 385.².012 stock.Commercial Line FASTON
(Receptacle and Tab
Combination)Tab Thickness: .020
Receptacle Stock
Thickness: .010

Wire Range AWG	Fits Tab	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.018 0.46	.080-.120 2.03-3.05	Brass	63242-1
	.020 0.51	.080-.120 2.03-3.05	Tin Plated Brass	62003-2

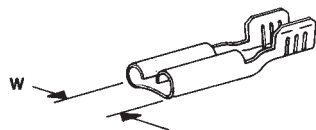
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

110 Series FASTON
Receptacles Straight
Non-Insulation Support

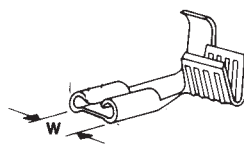
FASTON Receptacles

Stock Thickness: .010

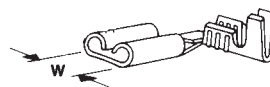


Terminals and Splices (Continued)

Wire Range AWG	Fits Tab ² Type	Fits Tab	Material and Finish	Terminal Part No.
24-22	—	.016 0.41	Brass	61818-1
20-18 or (2) 20	1	.020 0.51	Pre-Tin Brass	42399-1
		.032 0.81	Pre-Tin Brass	60601-1
20-18	1, 2, 3	.020 0.51	Pre-Tin Brass	62850-1 ¹
			Tin Plated Brass	62850-2 ¹
20-16	1	.016 0.41	Pre-Tin Brass	61457-1
18-14	1	.020 0.51	Pre-Tin Brass	62852-1 ³

¹No dimple..²See page 385.³Side feed.110 Series FASTON
Receptacles "F—Crimp"
Insulation Support

A

Fits Tab Type 1¹

B

Fits Tab Type 1¹

Wire Range AWG	Style	Fits Tab	Insulation Diameter	Stock Thickness	Dim. W	Material and Finish	Terminal Part No.
22-18	A	.016 0.41	.065-.100 1.65-2.54	.010 0.25	.148 3.76	Pre-Tin Brass	61459-1
		.020 0.51	.065-.100 1.65-2.54	.010 0.25	.148 3.76	Pre-Tin Brass	61372-1
				.012 0.30	.148 3.76	Tin Plated Brass	60605-1
		.025 0.63	.065-.100 1.65-2.54	.010 0.25	.148 3.76	Pre-Tin Brass	61530-1
	B	.020 0.51	.060-.100 1.52-2.54	.010 0.25	.148 3.76	Pre-Tin Brass	61481-1
				.012 0.30	.148 3.76	Tin Plated Brass	61070-1
						Brass	61070-2
		.032 0.81	.060-.100 1.52-2.54	.010 0.25	.148 3.76	Pre-Tin Brass	62336-1

¹See page 385.

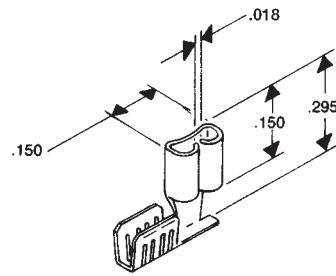
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

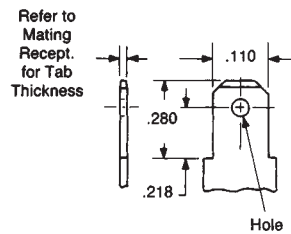
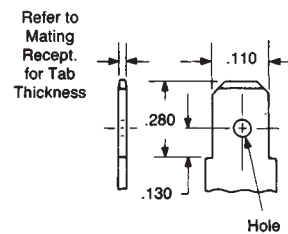
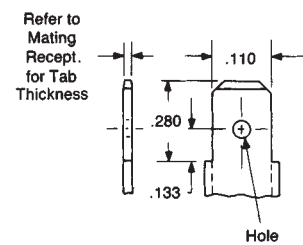
Standard Terminals and Splices

110 Series Flag FASTON
"F—Crimp" Non-Insulation
Support

Terminals and Splices (Continued)



Wire Range AWG	Fits Tab ¹ Type	Fits Tab	Stock Thickness	Material and Finish	Terminal Part No.
	—	.020 0.51	.012 0.30	Brass	60991-1
22-16	2	.020 0.51	.010 0.25	Pre-Tin Brass	61549-1
	1	.020 0.51	.010 0.25	Pre-Tin Brass	62321-1

¹See page below.Mating 110 Series FASTON
Tab DesignsMating 110 Series Tab
Dimension Type 1Mating 110 Series Tab
Dimension Type 2Mating 110 Series Tab
Dimension Type 3

For Complete Product Information , Order Catalog 82004.

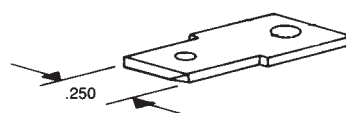
Standard Terminals and Splices

250 Series FASTON Tabs
(Mates with all "250" Series
FASTON Receptacles)

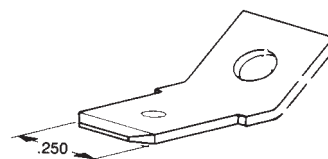
250 Series Stud Mount Type
Tabs

Stock Thickness: .032
Dimple (Both Sides)

Terminals and Splices (Continued)

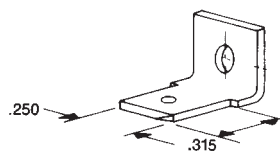


A

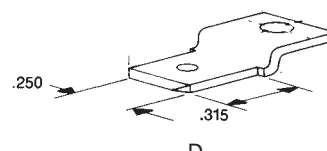


B

Style	Stud Diameter	Material and Finish	Terminal Part No.
A	.177 4.50	Brass	63038-2
	—	Nickel Plated Steel	42559-1
B	.130 3.30	Tin Plated Brass	42822-2
	.145 3.68	Tin Plated Brass	42822-4
	.171 4.34	Brass	60465-1
		Tin Plated Brass	60465-2
	.203 5.16	Tin Plated Brass	61365-1
	.197 5.00	Tin Plated Brass	61499-1



C



D

Style	Stud Diameter	Material and Finish	Terminal Part No.
C	.130 3.30	Tin Plated Brass	42095-1
	.130 3.30	Tin Plated Brass	42117-2
	.171 4.34	Brass	42214-1
		Tin Plated Brass	42214-2
D	.130 3.30	Tin Plated Brass	42506-2

For Complete Product Information , Order Catalog 82004.

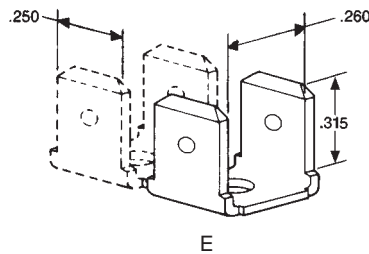
Standard Terminals and Splices

250 Series FASTON Tabs
(Mates with all "250" Series
FASTON Receptacles)

250 Series Stud Mount Type
Tabs

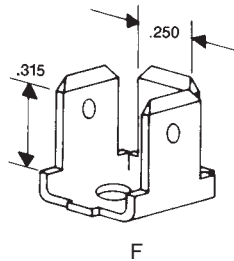
Stock Thickness: .032
Dimple (Both Sides)

Terminals and Splices (Continued)



Style	Pairs	Stud Diameter	Material and Finish	Terminal Part No.
E	—	.130 3.30	Tin Plated Brass	42115-4 ¹
	1	.171 4.34	Tin Plated Brass	42802-1
	1	.097 2.46	Tin Plated Brass	60080-2

¹In continuous strip-form.



Style	Stud Diameter	Material and Finish	Terminal Part No.
F	.130 3.30	Brass	62261-1

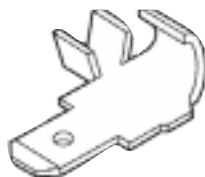
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

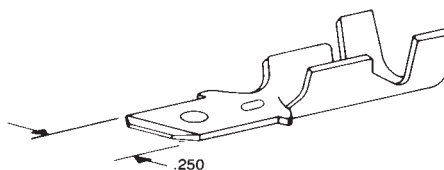
250 Series FASTON Tabs
(Mates with all "250" Series
FASTON Receptacles)

Wire Crimp Type Tabs

Tab Thickness: .032



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
18-14	.080-.120 2.03-3.05	Tin Plated Brass	42770-2



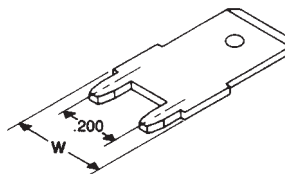
Wire Range AWG	Insulation Diameter	Stock Thickness	Material and Finish	Terminal Part No.
22-18	.080-.120 2.03-3.05	.016 0.41	Brass	42475-3
			Tin Plated Brass	42475-4
18-14	.110-.150 2.79-3.81	.016 0.41	Brass	42474-3
			Tin Plated Brass	42474-4
14-12	.110-.170 2.79-4.32	.016 0.41	Tin Plated Brass	61281-3

Printed Circuit Board Tab

Stock Thickness: .032

Board Hole Size: .055 ± .002
on Centers

¹Loose Piece Board Hole Size:
.060/.053 on Centers



Material and Finish	Dim. W	Terminal Part No.
Tin Plated Brass	.295 7.49	62409-1 ¹
	.280 7.11	62650-1 ²
	.280 7.11	63650-1 ²

¹Loose piece only.

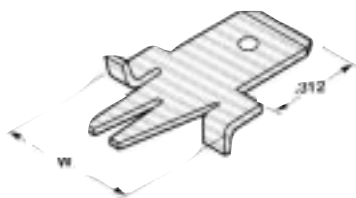
²Insertion equipment available.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

250 Series FASTON Tabs
(Mates with all "250" Series
FASTON Receptacles)

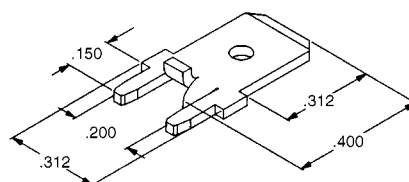
Stock Thickness: .032
Board Hole Size: .100 ± .002



Material and Finish	Dim. W	Terminal Part No.
Tin Plated Brass	.330 8.38	63066-1 ¹

¹Insertion equipment available.

Stock Thickness: .032
Board Hole Size: .055 ± .002



Material and Finish	Terminal Part No.
Tin Plated Brass	63824-1 ¹

¹Insertion equipment available.

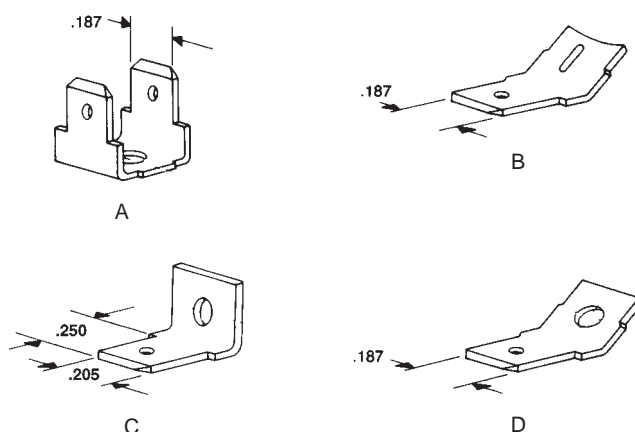
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

187 Series FASTON Tabs
(Mates with all "187" Series FASTON Receptacles)

Stud Mount Type Tabs
Hole In Tab

Terminals and Splices (Continued)

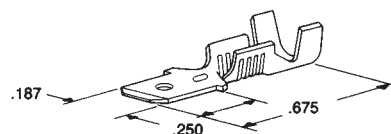


Style	Stud Diameter	Stock Thickness	Material and Finish	Terminal Part No.
A	.130 3.30	.020 0.51	Tin Plated Brass	61951-1
B	—	.020 0.51	Nickel Plated Steel	61960-1 ^{1,3}
C	.145 3.68	.020 0.51	Tin Plated Brass	61407-3
D	.130 3.30	.020 0.51	Tin Plated Brass	61761-2 ³
D	.145 3.68	.020 0.51	Brass	62576-1 ³
D	.171 4.34	.020 0.51	Tin Plated Brass	61664-1 ²

¹Weld tab.

³Bent 45°

Wire Crimp Type Tabs



Wire Range AWG	Tab Thickness	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.020 0.61	.080-.120 2.03-3.05	Tin Plated Brass	42490-3
			Brass	42490-4
22-18	.020 0.61	.120-.150 3.05-3.81	Brass	60850-1
			Tin Plated Brass	60850-2
	.032 0.81	.120-.150 3.05-3.81	Tin Plated Brass	61687-2 ¹

¹Premilled dual stock thickness, Tab .032, Body .016.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

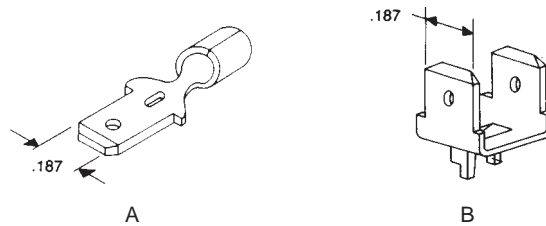
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

187 Series FASTON PCB Tabs
(Mates with all "187" Series
FASTON Receptacles)

Printed Circuit Board Tabs
Stock Thickness: .020

Terminals and Splices (Continued)

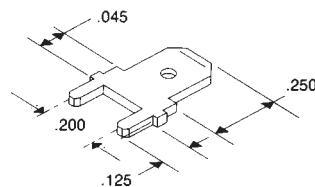


Type	Board Thickness	Material and Finish	Terminal Part No.
A	.062 1.57	Pre-Plated Brass	61907-1 ¹
B	.062 1.57	Pre-Tin Brass	62221-1 ²

¹Loose piece only.

²Insertion equipment available.

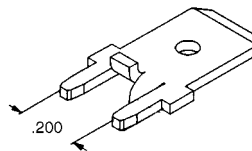
Printed Circuit Board Tab



Tab Thickness	Solder Tab Length	Material and Finish	Terminal Part No.
.032 0.81	.125 3.17	Tin Plated Brass	63525-1 ¹
.020 0.51	.125 3.17	Tin Plated Brass	63603-1 ²

¹Dimple

².055 Hole



Tab Thickness	Solder Tab Length	Material and Finish	Terminal Part No.
.020 0.51	.150 3.81	Tin Plated Brass	63823-1 ¹

¹.055 Hole

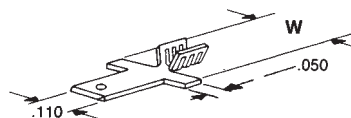
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

110 and 060 Series FASTON Tabs (110 Mates with all "110" Series FASTON Receptacles)

.110 Series Wire Crimp Type Tabs

Stock Thickness: .020



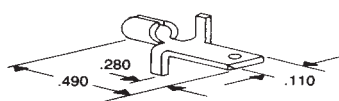
Wire Range AWG	Dim. W	Material and Finish	Terminal Part No.
22-18	.155 3.94	Pre-Tin Brass	62122-1
	.155 3.94	Pre-Tin Brass	62384-1
	—	Tin Plated Brass	63138-1 ^{1,2}

¹Insulation support

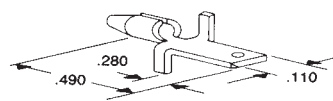
².032 Stock

.110 Series Printed Circuit Board Only

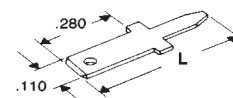
Stock Thickness: .020



A



B



C

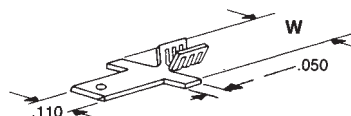
Style	Mating Hole Diameter	Material and Finish	Terminal Part No.
A	.060-.055 1.52-1.40	Tin Brass	61134-3 ¹
B	.067-.063 1.70-1.60	Tin Brass	61968-1 ²
		Tin Brass	62437-1 ¹
C	.044-.048 1.12-1.22	Tin Brass	62395-1 ²

¹Loose piece only.

²Insertion machine available.

.060 Series Wire Crimp Type Tabs

Stock Thickness: .032



Wire Range AWG	Dim. W	Material and Finish	Terminal Part No.
23-19	.140 3.56	Tin Plated Brass	63497-1 ¹

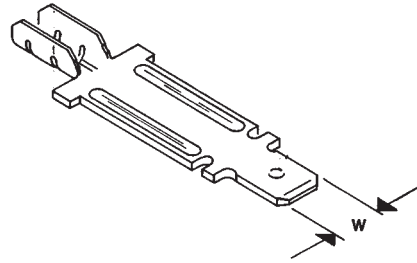
¹AMPLIVAR

For Complete Product Information , Order Catalog 82004.

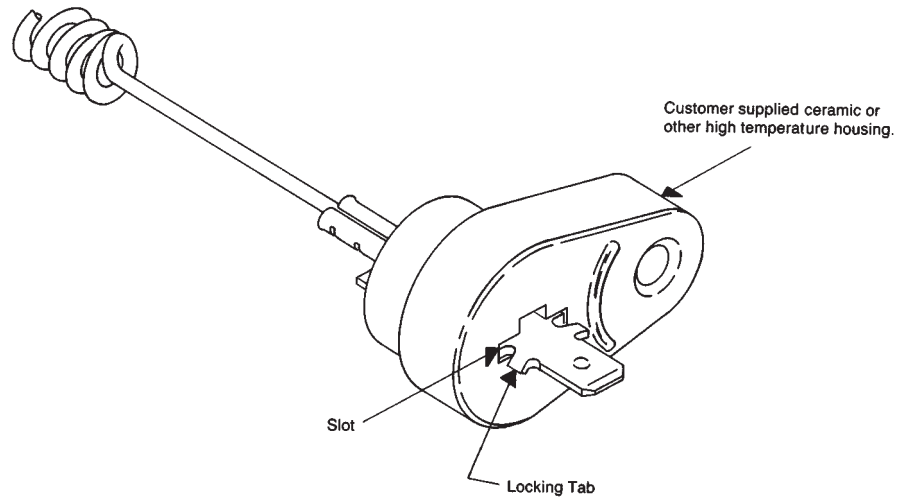
Standard Terminals and Splices**312 and 250 Series FASTON Tabs (High Temperature [343°C to 371°C])**

AMP's high-temperature tab is designed to crimp to heating element wire. The tab end protrudes through a ceramic/high-temperature housing for mating with either a standard 250 or 312 FASTON receptacle.

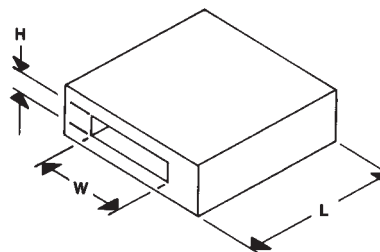
Stock Thickness: .032

Terminals and Splices (Continued)

Series	Solid Wire Range AWG	Tab Thickness	Dim. W	Material and Finish	Terminal Part No.
312	20-15	.032 0.81	.312 7.92	Nickel Plated Steel	63300-1
250	20-15	.032 0.81	.250 6.35	Nickel Plated Steel	63301-1

**Recommended Housing Dimensions**

Slot = H x W	L
.070 x .390	.640
1.78 x 9.91	16.26



For Complete Product Information , Order Catalog 82004.

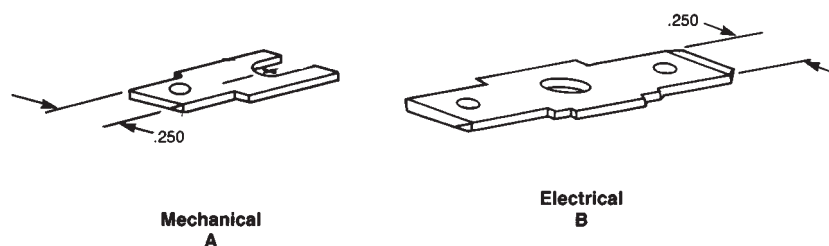
Standard Terminals and Splices

250 Series Test Tabs that mate with all "250" Series FASTON Receptacles

Test Tabs

The mechanical tab is mounted onto AMP guage 100505 for testing of receptacle insertion/extraction requirements. Double-ended test tabs are also available for electrical and temperature rise testing. AMP has readily available a variety of NEMA DC2 constructed tabs for mechanical testing of FASTON, Ultra-Fast and Positive Lock receptacles. These tabs are designed for electrical test setups as outlined in UL 310. (See instruction sheet IS-7432 for recommended procedure mechanical test)

Terminals and Splices (Continued)



Style	Stud Diameter	Material and Finish	Terminal Part No.
A	.125 3.17	Brass	60447-1 ¹
B	.145 3.68	Brass	62627-2

¹Mechanical test tab for use with AMP guage number 100505.

FASTON Terminals—Loose Piece

FASTON Terminals Loose Piece

FASTON terminals have been designed for speed of application using selected terminating machines.

Receptacles 250 Series

Wire Range AWG	Loose Piece Part No.	Description
22-18	60878-2	Premier Receptacle
	60705-1	Premier Receptacle
	60279-1	Piggyback Receptacle
	42238-2	FASTIN-FASTON
	42282-2	FASTIN-FASTON
18-14	60419-2	"F" Crimp Flag
14-10	61227-1	Piggyback
12-10	60851-3	Hermetic Flag

Receptacles 187 Series

Wire Range AWG	Loose Piece Part No.	Description
20-16	42566-2	Premier Receptacle
	42638-2	Premier (No Insulation)

250 Series Tabs

Wire Range AWG	Loose Piece Part No.	Description
22-18	61316-1	FASTIN-FASTON
18-14	42565-2	FASTIN-FASTON
N/A	63067-1	P.C.B. Tabs

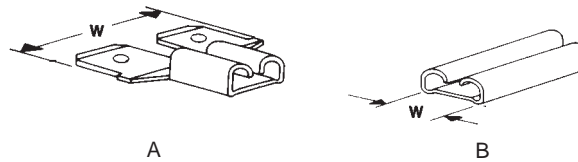
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

FASTON Tab Adapters

250 Series
FASTON Tab Adapters
Fits Tab: .032

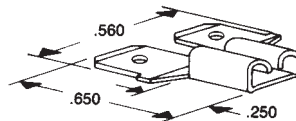
Terminals and Splices (Continued)



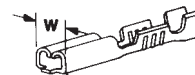
Style	Dual Thickness	Dim. W	Material and Finish	Terminal Part No.
A	.018-.032 0.46-0.81	.650 16.51	Brass	61765-1
			Tin Plated Brass	61765-2 ¹
B	—	.300 7.62	Tin Plated Brass	61810-2

¹No Tab stop on Receptacle.

187 Series
FASTON Tab Adapters
Fits Tab: .032



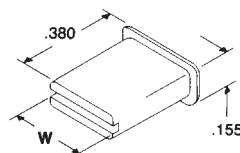
Stock Thickness	Material and Finish	Terminal Part No.
.013-.032 0.33-0.81	Tin Plated Brass	63699-1

Tab Receptacles
(Loose Piece)

Wire Range		Insul. Dia. Range	Stock Thickness	Material and Finish	Fits Tab	Dim. W	Terminal Part No.
AWG	mm ²						
24-20	0.2-0.6	.040-.080 1.02-2.03	.010 0.25	Tin Plated Brass	.031 x .062 0.79 x 1.57	.090 2.29	61454-1

Tab Caps and Splices

Tab Caps 250 Series



Tab Size	Material	UL 94 ¹	Color	Dim. W	Part No.
.032 Thick 0.81	Nylon	V2	Natural	.320 8.13	360042-1

¹Flammability rating.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

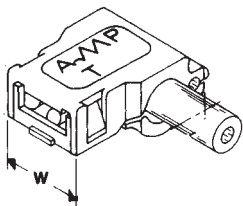
For Complete Product Information , Order Catalog 82004.

Standard Terminals and
Splices

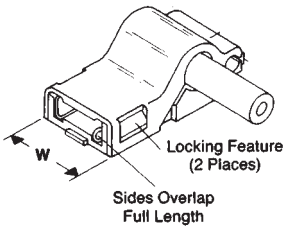
FASTON Housings

AMPIP
Post-Insulation Pods
Flag Style
Receptacle Housings

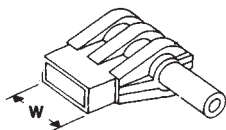
Terminals and Splices (Continued)



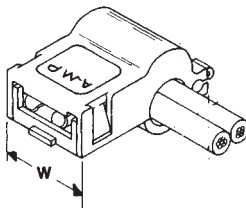
A
.250 Series



B
.250 Series



C
.250 Series



D
.187 Series

Style	Material	UL 94 ¹	Color	Insulation Dia. Max.	Dim. W	Part No. Loose Piece
A	Nylon	V2	Natural	.210 5.33	.448 11.38	1-480307-1
B	Nylon	V2	Natural	.140 or (2) .110	.460 11.68	1-480306-1
C	Vinyl	HB	Blue	.150 3.81	.380 9.65	480019-6
D	Nylon	V2	Natural	.175 4.44	.430 10.92	1-480487-2

¹Flammability rating of plastic material.

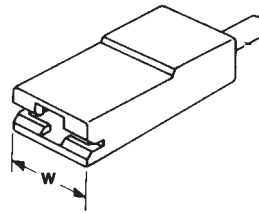
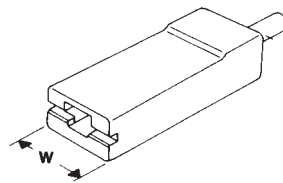
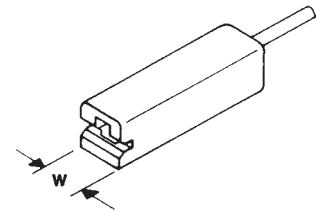
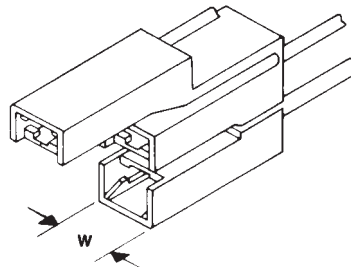
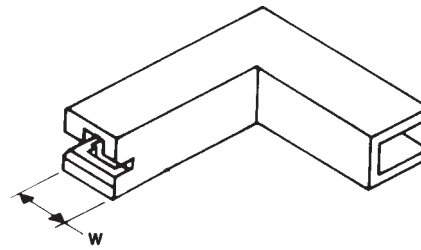
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

FASTON Housings

Straight Style Receptacle Housing

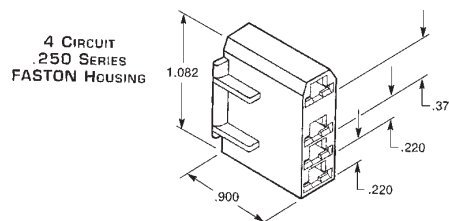
Terminals and Splices (Continued)

A
.250 SeriesB
.205/.187 SeriesC
.110 SeriesD
.187 SeriesE
.110 Series

Style	Material	UL 94 ¹	Color	Insulation Dia. Max.	Dim. W	Part No. Loose Piece
A	Nylon	V2	Natural	.200 5.08	.390 9.91	1-480416-0
			Black	.200 5.08	.390 9.91	1-480416-1
B	Nylon	V2	Natural	.180 4.57	.338 8.59	1-480418-0
			Natural	.170 4.32	.308 7.82	1-480435-0
C	Nylon	V2	Natural	.150 3.81	.235 5.97	1-480417-0
D	Nylon	V2	Natural	.170 4.32	.317 8.05	520212-1
			Red	.170 4.32	.317 8.05	520212-2
			Natural	.170 4.32	.317 8.05	360010-1
E	Nylon	V2	Natural	—	.225 5.71	360040-1

¹Flammability rating of plastic material.

Defrost Timer Housing



Material	UL 94 ¹	Color	Part No.
Nylon	V2	Black	520987-1
		Natural	520987-2

¹Flammability rating of plastic material.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

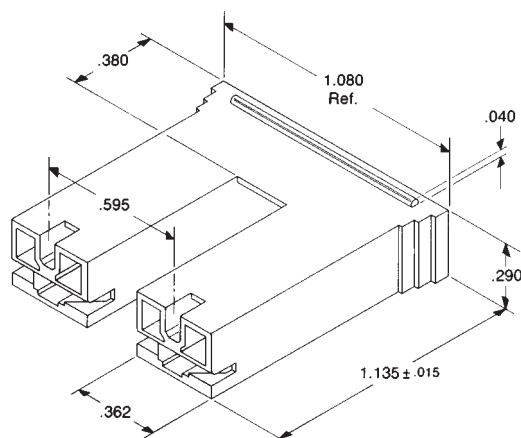
Standard Terminals and Splices

FASTON Housings

250 Series Housing

Water Valve Coil Connector

This connector is designed to mate with the Appliance Industry's Standard Water Valve Coil. The connector is suitable for such applications as washing machine mixing valves, dishwasher fill valves, and refrigerators with automatic ice makers. The housing has a unique internal cavity design to accommodate either two Positive Lock or two Budget and LIF FASTON receptacles.

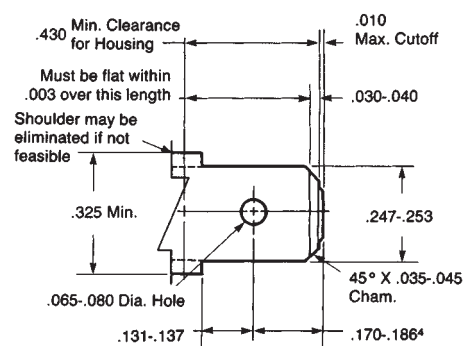


Material	UL 94 ¹	Color	Part No.
Nylon	V2	Red	520935-2
		Black	520935-3²

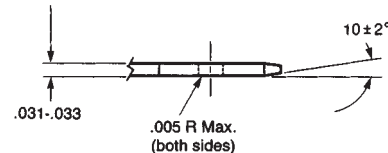
¹Flammability rating of plastic material.

²Weather resistant material.

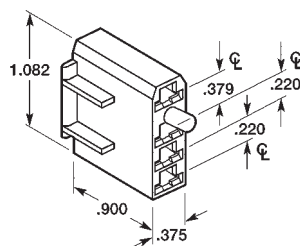
Recommended Mating Tab Dimensions



*Use when shoulder is eliminated.



Appliance Connectors



Material	UL 94 ¹	Color	Part No.
Nylon	V2	Natural	521066-1

¹Flammability rating of plastic material.

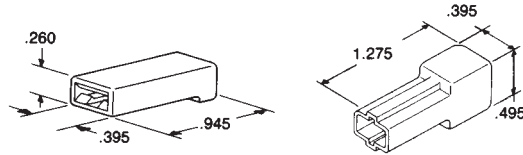
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

"250" Series FASTIN-FASTON Connectors

Single Circuit Connectors (Housings)

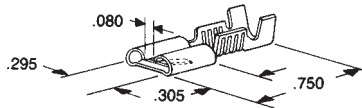


Material	UL 94 ¹	Color	Part Numbers	
			Receptacle	Tab
Nylon	V2	Natural	480054-3	480053-3
		Black	480054-4	—

¹Flammability rating.

Receptacles (For use with single circuit connectors)

Fits Tab: .032
Stock Thickness: .016
Mating Dimple

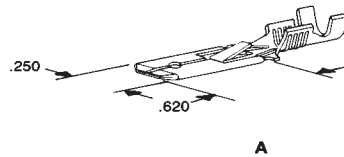


Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
18-14	.120-.160 3.05-4.06	Brass	42281-1
		Tin Plated Brass	42281-2
		Brass	60634-1 ¹
16-12	.160-.220 or (2) .130 Max.	Brass	60249-1 ²
		Tin Plated Brass	60249-2 ²

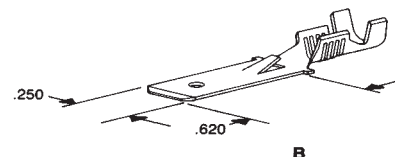
¹No front slot.

²Also capable of accepting (2) 16 AWG wire.

Tabs (For use with single or multiple circuit connectors) Stock Thickness: .015



A



B

Wire Range AWG	Style	Tab Thickness	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	A	.032 0.81	.085-.125 2.16-3.17	Tin Plated Brass	62553-3
18-14	A	.032 0.81	.120-.160 3.05-3.17	Brass	42460-1
				Tin Plated Brass	42460-2
	B	.016 0.41	.120-.145 3.05-3.68	Tin Plated Brass	42580-2 ¹
14-10	A	.032 0.81	.120-.170 3.05-4.32	Tin Plated Brass	62553-3

¹Used for back-to-back with a combined thickness of .032.

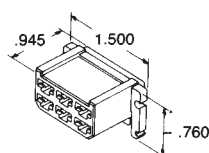
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

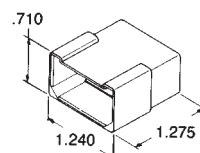
"250" Series
FASTIN—FASTON Connectors

Six Circuit Connectors
(Housings)

Terminals and Splices (Continued)



Receptacle Housing



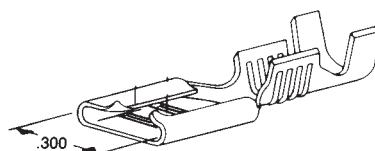
Tab Housing

Material	UL 94 ¹	Color	Part Numbers	
			Receptacle	Tab
Nylon	V2	Natural	480003-5	480004-5

¹Flammability rating.

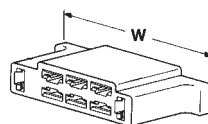
Receptacles (For use with
multiple circuit connectors)

Fits Tab: .032
Stock Thickness: .012
Without Mating Dimple



Wire Range AWG	Insulation Diameter	Material and Finish	Terminal Part No.
22-18	.085-.125 2.16-3.17	Tin Plated Brass	60295-2
	.060-.100 1.52-2.54	Tin Plated Brass	60413-1
18-14	.120-.160 3.05-4.06	Brass	42100-1
		Tin Plated Brass	42100-2
12-16 or (2) 16	.160-.210 or (2) .130 Max.	Tin Plated Brass	60253-2
12-10	.135-.200 3.43-5.08	Tin Plated Brass	180351-2

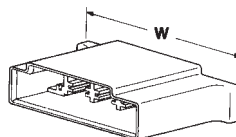
8-Circuit Connectors
(Housings)



Mating Face

Material	UL 94 ¹	Color	Dim. W	Housing No.
Nylon	V2	Natural	2.125 53.97	480173-1

¹Flammability rating of plastic material.



Mating Face

Material	UL 94 ¹	Color	Dim. W	Housing No.
Nylon	V2	Natural	2.240 56.90	480174-1

¹Flammability rating of plastic material.

For Complete Product Information , Order Catalog 82004.

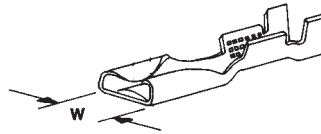
BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

Standard Terminals and Splices

"187" Series
FASTIN—FASTON Connectors

Modular Connector Receptacles

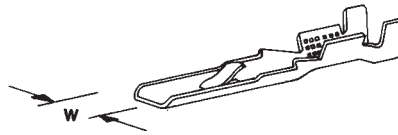
Fits Tab: .016
Insulation Diameter: .090-.130
oe (2) .110 Max.



Wire Range AWG	Stock Thickness	Dim. W	Material and Finish	Terminal Part No.
20-16 or (2) 20	.012 0.30	.220 5.59	Pre-Tin Brass	60435-1

Modular Connector Tabs

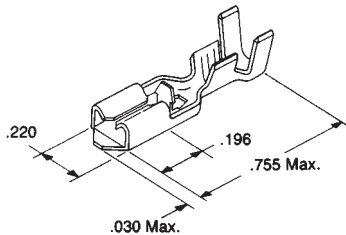
Tab Thickness: .016
Insulation Diameter: .090-.130
oe (2) .110 Max.



Wire Range AWG	Stock Thickness	Dim. W	Material and Finish	Terminal Part No.
20-16 or (2) 20	.016 0.41	.145 3.68	Pre-Tin Brass	60434-1

Positive Lock Receptacles

Mark II
187 Series Receptacles



Wire Range AWG	Insulation Diameter	Tab Size	Material and Finish	Part No.
20-16	.090-.130 2.29-3.30	.020 0.51	Brass/Pre-Tin	63232-1 ¹

¹Low profile—not for use in housing.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

Ultra-Fast Fully Insulated FASTON Receptacles and Tabs

Receptacles

Material

Housing—Nylon Type 6/6

Terminal—Tin-Plated, copper alloy

Color Code (Translucent)

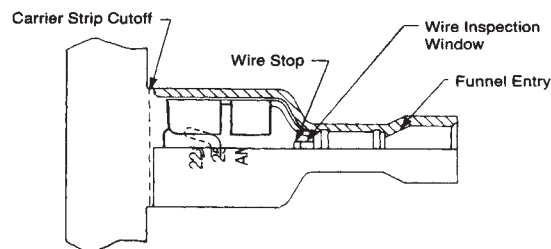
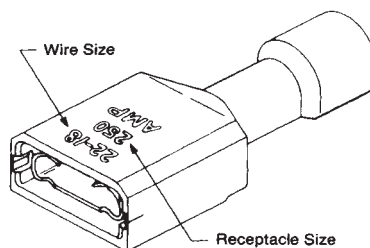
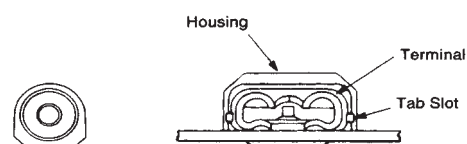
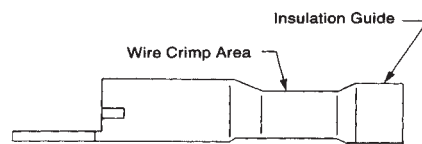
Violet—26-22 AWG

Red—22-18 AWG

Blue—16-14 AWG

Yellow—12-10 AWG

Terminals and Splices (Continued)



Description	Wire Range AWG	Ins. Dia. Max.	Mating Tab	Terminal Base Material	Part No.	
					Strip	Loose Piece
.110/.125 Series	26-22	.100 2.54	.020 x .110/.125 0.51 x 2.79/3.17	Brass	7-520365-2 ¹	7-520366-2 ¹
			.016 x .110/.125 0.41 x 2.79/3.17	Brass	2-520080-2 ¹	2-520081-2 ¹
	22-18	.120 3.05	.020 x .110/.125 0.51 x 2.79/3.17	Brass	2-520083-2	2-520084-2
			.032 x .110/.125 0.81 x 2.79/3.17	Brass	2-520272-2	2-520273-2
			.020 x .110/.125 0.51 x 2.79/3.17	Brass	2-520306-2 ¹	—
			.032 x .110/.125 0.81 x 2.79/3.17	Brass	2-520310-2 ¹	—
.187 Series	16-14	.260 6.60	.020 x .110/.125 0.51 x 2.79/3.17	Brass	3-520370-2 ²	—
			.020 x .187 0.51 x 4.75	Brass	2-520181-2	2-520182-2
	22-18	.135 3.43	.032 x .187 0.81 x 4.75	Brass	2-520193-2	2-520194-2
				Brass	2-521104-2	2-521105-2
			.020 x .187 0.51 x 4.75	Brass	2-520261-2	—
			.032 x .187 0.81 x 4.75	Brass	2-520274-2	2-520275-2
	16-14	.160 4.06	.020 x .187 0.51 x 4.75	Brass	3-350815-2	3-350816-2
			.032 x .187 0.81 x 4.75	Brass	3-520124-2	3-520125-2
			.020 x .187 0.51 x 4.75	Brass	3-520150-2	3-520151-2

¹UL Recognized, CSA Certified

²UL Recognized 8 AMPS Max. CSA Certified.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

Ultra-Fast Fully Insulated FASTON Receptacles and Tabs

Receptacles

Terminals and Splices (Continued)

Description	Wire Range AWG	Ins. Dia. Max.	Mating Tab	Terminal Base Material	Part No.	
					Strip	Loose Piece
.250 Series	22-18	.135 3.43	.032 x .250 0.81 x 6.35	Brass	2-520183-2	2-520184-2
				Phos. Brz.	2-520183-4	2-520184-4
		.230 5.84	.032 x .250 0.81 x 6.35	Brass	2-520263-2	2-520264-2
				Phos. Brz.	2-520263-4	—
	16-14	.160 4.06	.032 x .250 0.81 x 6.35	Brass	3-350819-2	3-350820-2
				Phos. Brz.	3-520116-2	3-520117-2
		.260 6.60	.032 x .250 0.81 x 6.35	Brass	3-520140-2	3-520141-2
				Phos. Brz.	3-520140-4	—
	12-10	.320 8.13	.032 x .250 0.81 x 6.35	Brass	4-520447-2	4-520448-2

Ultra-Fast Fully Insulated FASTON Tabs

Material

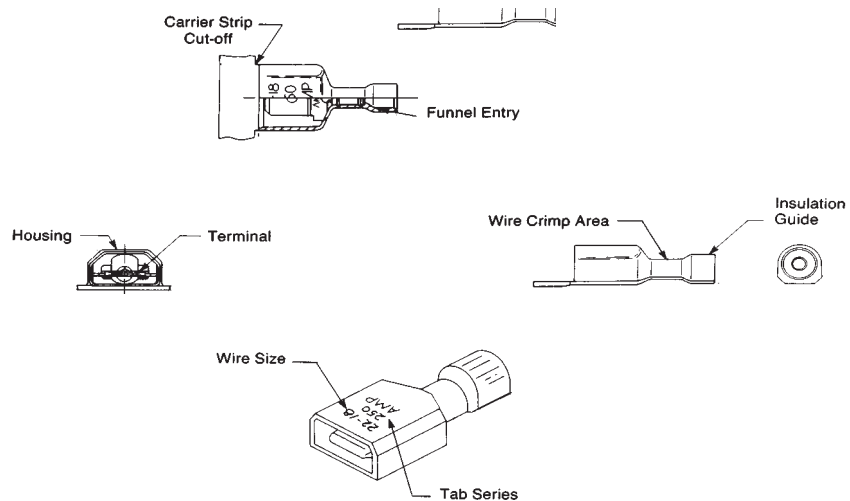
Housing—Nylon Type 6/6

Terminal—Tin-Plated, copper alloy

Color Code
(Translucent)

Red—22-18 AWG

Blue—16-14 AWG



Description	Wire Range AWG	Ins. Dia. Max.	Tab Size	Terminal Base Material	Part No.	
					Strip	Loose Piece
.250 Series	22-18	.135 3.43	.032 x .250 0.81 x 6.35	Brass	2-520102-2	2-520103-2
	16-14	.160 4.06	.032 x .250 0.81 x 6.35	Brass	3-520106-2	3-520107-2

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

Ultra-Fast Fully Insulated FASTON Flag Receptacles

Material

Housing—Nylon Type 6/6

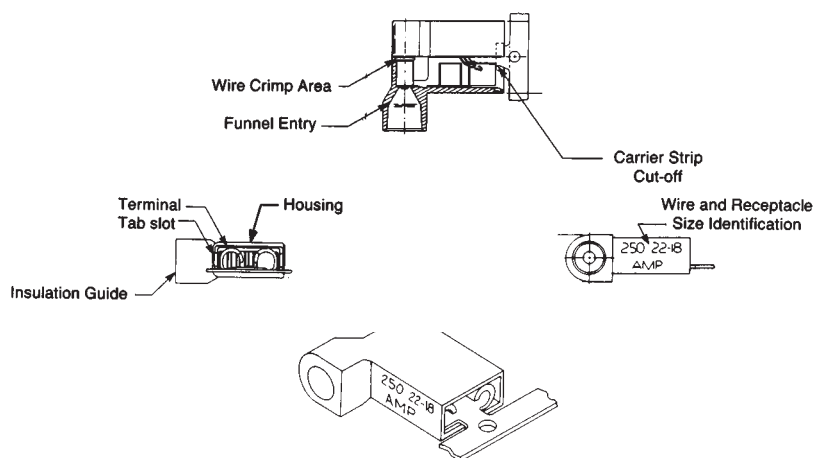
Terminal—Tin-Plated, copper alloy

Color Code
(Translucent)

Red—22-18 AWG

Blue—16-14 AWG

Terminals and Splices (Continued)



Description	Wire Range ¹ AWG	Ins. Dia. Max.	Mating Tab	Terminal Base Material	Part No.	
					Strip	Loose Piece
.187 Series	22-18	.165 4.19	.020 x .187 0.51 x 4.75	Brass	2-520334-2	2-520335-2
			.032 x .187 0.81 x 4.75	Brass	2-520336-2	2-520337-2
	16-14	.185 4.70	.020 x .187 0.51 x 4.75	Brass	3-520338-2	3-520339-2
			.032 x .187 0.81 x 4.75	Brass	3-520340-2	—
.250 Series	22-18	.165 4.19	.032 x .250 0.81 x 6.35	Brass	2-520128-2	2-520129-2
		.230 4.19	.032 x .250 0.81 x 6.35	Brass	2-520856-2	—
	16-14	.185 4.70	.032 x .250 0.81 x 6.35	Brass	3-520132-2	3-520133-2
		.260 6.60	.032 x .250 0.81 x 6.35	Brass	3-521013-2	—

¹Stranded wire only.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

Ultra-Fast Plus—Fully Insulated FASTON Receptacles

Material

Housing—Nylon

Terminal—Tin-Plated, copper alloy

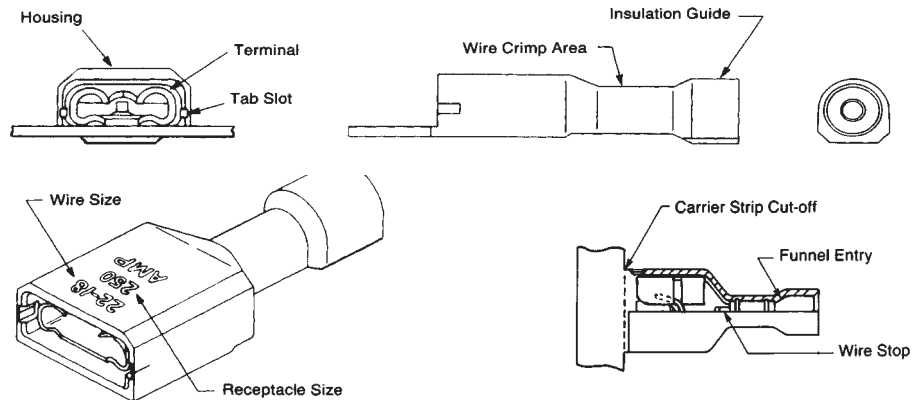
Color Code

(Translucent)

Red—22-18 AWG

Blue—16-14 AWG

Terminals and Splices (Continued)



Description	Wire Range AWG	Ins. Dia. Range	Mating Tab	Terminal Base Material	Part No.	
					Strip	Loose Piece
.110/.125 Series	22-18	.060-.120 1.52-3.05	.032 x .110/.125 0.81 x 2.79/3.17	Brass	2-520979-2	—
			.020 x .110/.125 0.51 x 2.79/3.17	Brass	2-520932-2	—
.187 Series	22-18	.060-.135 1.52-3.43	.020 x .187 0.51 x 4.75	Brass	2-520401-2	2-520409-2
			.032 x .187 0.81 x 4.75	Brass	3-520403-2	3-520411-2
	16-14	.090-.160 2.29-4.06	.020 x .187 0.51 x 4.75	Brass	2-520402-2	2-520410-2
			.032 x .187 0.81 x 4.75	Brass	3-520404-2	3-520412-2
.250 Series	22-18	.060-.135 1.52-3.43	.032 x .250 0.81 x 6.35	Brass	2-520405-2	2-520407-2
	16-14	.090-.160 2.29-4.06	.032 x .250 0.81 x 6.35	Brass	3-520406-2	3-520408-2

Ultra-Fast Plus—Fully Insulated FASTON Tabs

Material

Housing—Nylon Type 6/6

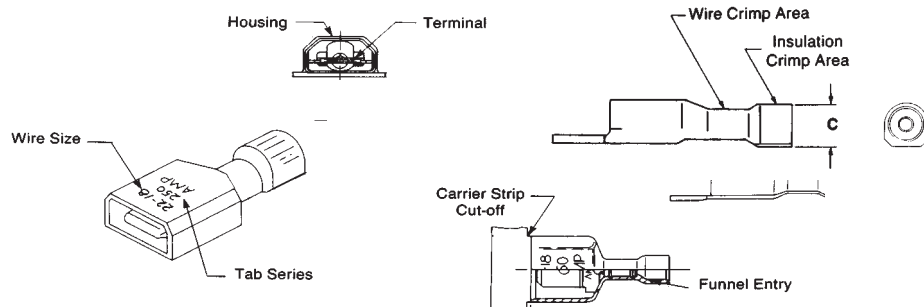
Terminal—Tin-Plated, copper alloy

Color Code

(Translucent)

Red—22-18 AWG

Blue—16-14 AWG



Description	Wire Range AWG	Ins. Dia. Range	Mating Tab	Terminal Base Material	Part No.	
					Strip	Loose Piece
.250 Series	22-18	.060-.135 1.52-3.43	.032 x .250 0.81 x 6.35	Brass	2-521055-2	—
	16-14	.090-.160 2.29-4.06	.032 x .250 0.81 x 6.35	Brass	3-521057-2	—

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

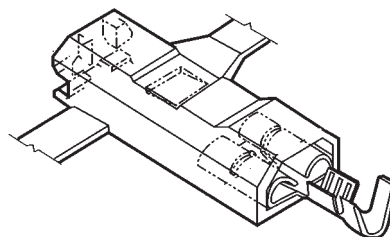
For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

Ultra-Pod Fully Insulated FASTON Receptacles

Insulation Support

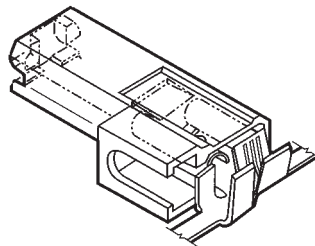
Terminals and Splices (Continued)



Description	Wire Range		Ins. Dia. Range	Mating Tab	UL 94 ¹	Color	Material and Finish	Part No.
	AWG	[mm ²]						
.187 [4.75] Series	20-16	0.5-1.4	.090-.130 2.29-3.3	.020 x .187 0.51 x 4.75	V2	Natural	Brass	520973-1
				.032 x .187 0.81 x 4.75	V2	Natural	Brass	520982-1
					V2	Natural	Brass	520963-1
.250 [6.35] Series	18-14	0.8-2	.120-.170 3.05-4.32	0.32 x .250 0.81 x 4.75			Tin Plated Brass	520963-2
					V0	Natural	Tin Plated Brass	521046-1
	14-12	2-3	.130-.180 3.3-4.57	0.32 x .250 0.81 x 4.75	V2	Black	Tin Plated Brass	521011-2
					V2	Natural	Brass	520974-1
							Tin Plated Brass	520974-2

¹Flammability rating of plastic material.

Flag Insulation Support



Description	Wire Range		Ins. Dia. Range	Mating Tab	UL 94 ¹	Color	Material and Finish	Part No.
	AWG	[mm ²]						
.250 [6.35] Series	18-14	0.8-2	.110-.160 2.79-4.06	0.32 x .250 0.81 x 4.75	V2	Natural	Brass	520971-1

¹Flammability rating of plastic material.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82004.

Standard Terminals and Splices

PLASTI-GRIP Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl
Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	4	.218 5.54	Red	.140 3.56	2-34141-1
			.218 5.54	Red	.125 3.18	2-32945-1
			.281 7.14	Red	.125 3.18	2-32947-1
			.281 7.14	Red	.140 3.56	2-34144-1
			.281 7.14	Black	.140 3.56	2-326819-1
			.312 7.92	Red	.125 3.18	2-32950-1
		6 M3.5	.312 7.92	Red	.140 3.56	2-34147-1
			.281 7.14	Red	.125 3.18	2-32948-1
			.281 7.14	Red	.140 3.56	2-34145-1
			.312 7.92	Red	.125 3.18	2-32951-1
			.312 7.92	Red	.140 3.56	2-34148-1
			.312 7.92	Red	.200 5.08	2-34148-4
		8 M4	.281 7.14	Red	.125 3.18	2-32949-1
			.281 7.14	Red	.140 3.56	2-34146-1
			.312 7.92	Red	.125 3.18	2-32952-1
		10	.469 11.91	Red	.125 3.18	2-32953-1
			.469 11.91	Red	.140 3.56	2-34150-1
			.469 11.91	Red	.140 3.56	2-34151-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	5/16 M8	.469 11.91	Red	.140 3.56	2-34152-2
		3/8	.531 13.49	Red	.140 3.56	2-34152-2
			.343 8.71	Blue	.145 3.68	2-32958-1
		6 M3.5	.343 8.71	Blue	.170 4.32	2-34159-1
			.312 7.92	Blue	.170 4.32	2-328527-1
		8 M4	.343 8.71	Blue	.145 3.68	2-32959-1
			.343 8.71	Blue	.170 4.32	2-34160-1
		10	.343 8.71	Blue	.145 3.68	2-32960-1
			.343 8.71	Blue	.170 4.32	2-34161-1
		1/4 M6	.469 11.91	Blue	.170 4.32	2-34162-1
		5/16 M8	.469 11.91	Blue	.170 4.32	2-34163-1
		3/8	.531 13.49	Blue	.170 4.32	2-34164-2



Style A

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PLASTI-GRIP Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl
Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
16-14HD ¹ 2,050-5,180 [1.04-2.62]		10	.343 8.71	Yellow/Blk	.200 5.08	2-34823-1 ²
			.343 8.71	Yellow/Blk	.250 6.35	2-321518-1
		6	.281 7.14	Yellow	.250 6.35	2-34852-1
		M3.5	.375 9.53	Yellow	.230 5.84	2-34168-1
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	8	.375 9.53	Yellow	.230 5.84	2-34169-1
			.375 9.53	Yellow	.250 6.35	2-34853-1
		10	.312 7.92	Yellow	.300 7.62	1-330518-2
			.375 9.53	Yellow	.250 6.35	2-328261-1
			.375 9.53	Yellow	.230 5.84	2-34170-1
		1/4 M6	.375 9.53	Yellow	.250 6.35	2-34854-1
			.531 13.49	Yellow	.230 5.84	2-34171-1
		5/16 M8	.531 13.49	Yellow	.250 6.35	2-34855-1
			.531 13.49	Yellow	.230 5.84	2-34172-1
		3/8	.531 13.49	Yellow	.250 6.35	2-34856-1
			.593 15.06	Yellow	.230 5.84	2-34173-1
		1/2 M2	.750 19.05	Yellow	.250 6.35	2-34837-4



Style A

¹Heavy Duty for extra mechanical strength.

²Not UL or CSA Approved or Listed.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PLASTI-GRIP Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl
Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Terminals and Splices (Continued)



Style B



Style C



Style F

Wire Size Circular Mils [mm²]	Tongue Material Thickness Max.	Stud Size	Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
							Loose Piece	Tape Mounted
8 13,100-20,800 [6.64-10.5]	.043 1.09	8 M4	C	.478 12.14	Red	.360 9.14	—	52041-6
				.431 10.95	Red	.360 9.14	—	52263-2
		10	B	.431 10.95	Red	.330 8.38	52263-1	52263-3
				.431 10.95	Red	.360 9.14	—	55621-2
		1/4 M6	C	.478 12.14	Red	.360 9.14	52041-1	52041-7
				.478 12.14	Red	.330 8.38	52041-3 ¹	52041-9
		5/16 M8	C	.587 14.91	Red	.360 9.14	—	52291-4
		3/8	C	.587 14.91	Red	.360 9.14	52291-1 ¹	—
		1/2 M12	A	.875 22.23	Red	.330 8.38	52262-1	—
		8 M4	C	.500 12.70	Blue	.360 9.14	52042-2	—
6 20,800-33,100 [10.5-16.8]	.048 1.22	10	B	.468 11.89	Blue	.436 11.07	—	52265-3
			C	.500 12.70	Blue	.436 11.07	52042-4	—
			F	.398 10.11	Blue	.450 11.43	—	55679-2
		1/4 M6	C	.500 12.70	Blue	.436 11.07	52042-1	52042-7
				.500 12.70	Blue	.360 9.14	52042-3 ¹	52042-9
		3/8	B	.625 15.88	Blue	.450 11.43	52264-1 ¹	—

¹Available in small packaging quantities.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PLASTI-GRIP Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727



Style B

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Style	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
							Loose Piece	Tape Mounted
4 33,100-52,600 [16.8-26.7]	.051 1.30	10	B	.546 13.87	Yellow	.450 11.43	52043-2	—
				.391 9.93	Yellow	.450 11.43	—	55680-2
		1/4 M6	B	.546 13.87	Yellow	.450 11.43	52043-3 ¹	—
				.546 13.87	Yellow	.515 13.08	52043-1	—
		5/16 M8	B	.679 17.25	Yellow	.450 11.43	52266-3	—
		3/8	B	.679 17.25	Yellow	.450 11.43	52266-4 ¹	—
2 52,600-83,700 [26.7-42.4]	.060 1.52	1/4 M6	B	.675 17.15	Red	.560 14.22	52267-1	—
		5/16 M8	B	.711 18.06	Red	.632 16.05	52044-1	—
		3/8	B	.711 18.06	Red	.632 16.05	52044-2	—
1/0 83,700-119,500 [42.4-60.6]	.060 1.52	5/16 M8	B	.807 20.50	Blue	.684 17.37	52045-1	—
		3/8	B	.807 20.50	Blue	.665 16.89	52045-5	—

¹Available in small packaging quantities.

For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PLASTI-GRIP Spade Tongue Terminals

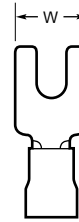
Material and Finish:

Insulation—Vinyl

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	6 M3.5	.250 6.35	Red	.140 3.56	2-327043-1
			.297 7.54	Red	.125 3.18	2-327735-1
			.297 7.54	Red	.140 3.56	2-320665-1
		8 M4	.375 9.53	Red	.125 3.18	2-32981-1
			.375 9.53	Red	.140 3.56	2-34155-1
			.375 9.53	Red	.140 3.56	2-34156-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.297 7.54	Blue	.145 3.68	2-322994-1
		10	.385 9.78	Blue	.170 4.32	2-34167-1
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	10	.406 10.31	Yellow	.230 5.84	2-34176-1



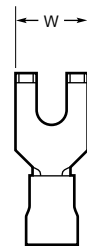
PLASTI-GRIP Flanged Spade Tongue Terminals

Material and Finish:

Insulation—Vinyl

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Wire Size Circular Mills [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
						Loose Piece	Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	6 M3.5	.296 7.52	Red	.140 3.56	—	1-322249-1
		8 M4	.296 7.52	Red	.140 3.56	1-322249-0	1-322249-9
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.294 7.47	Blue	.170 4.32	—	2-324165-1
		8 M4	.294 7.47	Blue	.170 4.32	—	53874-2
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	6 M3.5	.296 7.52	Yellow	.230 5.84	—	1-324581-1
		10	.416 10.57	Yellow	.250 6.35	—	52856-1



For Complete Product Information , Order Catalog 82042.

Standard Terminals and Splices

PLASTI-GRIP Short Spring Spade Tongue Terminals

Material and Finish:

Insulation—Vinyl

Terminal Body—Phosphor bronze per ASTM B-139 for wire sizes 22-14, brass per ASTM B-36 for wire sizes 12-10, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
						Loose Piece	Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	4	.203 5.16	Red	.140 3.56	—	52947-1
			.234 5.94	Red	.140 3.56	53240-1 ¹	53240-2
		6 M3.5	.250 6.35	Red	.140 3.56	—	52949-1
			.250 6.35	Red	.200 5.08	—	52949-3
		8 M4	.244 6.20	Red	.140 3.56	53241-1	53241-2
			.375 9.53	Red	.140 3.56	—	52950-1
		10	.294 7.47	Red	.140 3.56	53242-1	53242-2
			.406 10.31	Red	.140 3.56	—	52951-1
			.406 10.31	Red	.200 5.08	—	52951-3
		6 M3.5	.250 6.35	Blue	.170 4.32	—	52955-1
			.250 6.35	Blue	.250 6.35	52955-2	52955-3
			.244 6.20	Blue	.170 4.32	53244-1 ¹	53244-2
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	8 M4	.375 9.53	Blue	.170 4.32	—	52956-1
			.294 7.47	Blue	.170 4.32	53245-1	—
		10	.406 10.31	Blue	.170 4.32	—	52957-1
			.406 10.31	Blue	.250 6.35	—	52957-3
		10	.406 10.31	Yellow	.300 7.62	—	52963-5

¹Available in small packaging quantities.



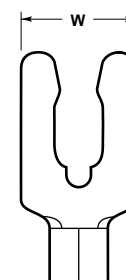
PLASTI-GRIP Long Spring Spade Tongue Terminals

Material and Finish:

Insulation—Vinyl

Terminal Body—Phosphor bronze per ASTM B-139 for wire sizes 22-14, brass per ASTM B-36 for wire sizes 12-10, tin plated per MIL-T-10727

Wire Size Circular Mils [mm ²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	6 M3.5	.250 6.35	Red	.140 3.56	52453-1
		8 M4	.281 7.14	Red	.140 3.56	52454-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.250 6.35	Blue	.170 7.01	52463-1
		8 M4	.281 7.14	Blue	.170 7.01	52464-1



For Complete Product Information, Order Catalog 82042.

Standard Terminals and Splices

PLASTI-GRIP Multiple Stud Terminals

Material and Finish:

Insulation—Vinyl

Terminal Body—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
22-16 509-3,260 [0.26-1.65]	.033 0.84	6-8-10	.325 8.26	Red	.125 3.18	54774-2



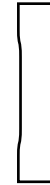
PLASTI-GRIP Butt Splices

Material and Finish:

Insulation—Vinyl

Splice Body—Copper per ASTM B-152, tin plated per MIL-T-10727

Wire Size Circular Mils¹ [mm²]	Splice Insulation Color	Wire Insulation Diameter Max.	Part Numbers	
			Loose Piece	Tape Mounted
22-16² 509-3,260 [0.26-1.65]²	Red	.120 3.05	—	2-34067-1
		.170 4.32	—	1-34243-1
		.140 3.56	—	1-34070-1
16-14 2,050-5,180 [1.04-2.62]	Blue	.170 4.32	—	2-34071-1
	Natural w/ Blue Letters	.170 4.32	55785-1³	—
	Blue	.170 4.32	—	2-34071-3⁴
12-10 5,180-13,100 [2.62-6.64]	Yellow	.230 5.84	—	2-34072-2



¹When using two or more wires in either end of a butt splice, the combined cross sectional area must be within the circular mil area (CMA) range listed.

²22-16 splices are 22-18 range in accordance with MIL-T-7928.

³Available in small packaging quantities.

⁴Funnel entry.

AMPLI-BOND Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl

Splice Body—Copper per ASTM B-152, tin plated per MIL-T-10727

Insulation Support Ring—Steel per ASTM A-109

Wire Size Circular Mils [mm²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
8 13,100-20,800 [6.64-10.5]	.043 1.09	10	.431 10.95	Red	.298 7.57	2-322128-2



PLASTI-BOND Ring Tongue Terminals

Material and Finish:

Insulation—Vinyl

Terminal Body and Metallic Sleeve—Copper per ASTM B-152, tin plated per MIL-T-10727

Wire Size Circular Mils [mm²]	Tongue Material Thickness Max.	Stud Size	Dim. W	Terminal Insulation Color	Wire Insulation Diameter Max.	Part Numbers Tape Mounted
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	1/4 M6	.500 12.70	Black	.300 7.62	2-35627-1



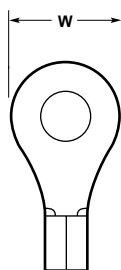
For Complete Product Information , Order Catalog 82042.

SOLISTRAND and Budget Terminals and Splices

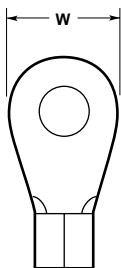
Ring Tongue Terminals

Material and Finish:

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727



Style A



Style C

Terminals and Splices (Continued)

Wire Size Circular Mills [mm²]	Material Thickness Max.	Stud Size	Style	Dim. W	Wire Barrel I.D. Min.		Part Numbers	
					SOLISTRAND	Budget	SOLISTRAND	Budget
26-22 202-810 [0.1-0.41]	.020 0.51	2 M2	A	.140 3.56	—	.035 0.89	—	2-31425-2
22-16 509-3,260 [0.26-1.65]	.033 0.84	4	A	.218 5.54	.061 1.55	—	2-34104-6	—
			A	.250 6.35	.061 1.55	—	2-323096-2	—
		6 M3.5	A	.218 5.54	.061 1.55	—	2-34105-2	—
			A	.281 7.14	.061 1.55	—	2-34107-2	—
		8 M4	A	.312 7.92	.061 1.55	—	2-34111-3	—
			A	.281 7.14	.061 1.55	—	2-34108-2	—
		10	A	.312 7.92	.061 1.55	—	2-34112-2	—
			A	.574 14.58	.061 1.55	—	2-34109-2	—
		1/4 M6	A	.469 11.91	.061 1.55	—	2-34113-2	—
		5/16 M8	A	.469 11.91	.061 1.55	—	2-34114-2	—
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	A	.250 6.35	.085 2.16	—	2-34120-1	—
			A	.312 7.92	.085 2.16	—	2-321684-1	—
		8 M4	A	.343 8.71	.085 2.16	—	2-34122-1	—
			A	.312 7.92	.085 2.16	—	2-324955-1	—
		10	A	.343 8.71	.085 2.16	—	2-34123-1	—
			A	.312 7.92	.085 2.16	—	2-320093-1	—
		1/4 M6	A	.469 11.91	.085 2.16	—	2-34124-1	—
		12-10 5,180-13,100 [2.62-6.64]	.042 1.07	6 M3.5	A	.281 7.14	.129 3.28	—
A	.375 9.53				.129 3.28	—	2-33456-1	—
8 M4	A			.375 9.53	.129 3.28	—	2-32994-1	—
	A			.375 9.53	.129 3.28	—	2-33457-2	—
10	A			.500 12.70	.129 3.28	—	2-35771-1	—
	1/4 M6			A	.531 13.49	.129 3.28	—	2-33458-3
5/16 M8	A			.531 13.49	.129 3.28	—	2-22459-6	—
3/8	A			.593 15.06	.129 3.28	—	1-33220-2 ⁴	—
1	A			1.250 31.75	.129 3.28	—	1-320765-0	—

*Requires a 68250-1 Heavy Duty TAPETRONIC and 68242-2 die set for application.

For Complete Product Information, Order Catalog 65505.

SOLISTRAND and Budget Terminals and Splices

Ring Tongue Terminals

Material and Finish:

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Material Thickness Max.	Stud Size	Style	Dim. W	Wire Barrel I.D. Min.		Part Numbers	
					SOLISTRAND	Budget	SOLISTRAND	Budget
8 13,100-20,800 [6.64-10.5]	.051 1.30	10	C	.406 10.31	.172 4.37	—	2-33460-2 ^{1,3}	—
			C	.406 10.31	.172 4.37	—	2-31807-2 ^{2,3}	—
		1/4 M6	C	.469 11.91	.172 4.37	—	2-33461-2 ^{1,3}	—
			C	.469 11.91	.172 4.37	—	2-33461-3 ^{2,3}	—
6 20,800-33,100 [10.5-16.8]	.060 1.52	10	C	.625 15.88	.232 5.89	—	53106-1	—
			C	.625 15.88	.232 5.89	—	2-33465-1	—
		1/4 M6	C	.468 11.89	.232 5.89	—	2-321598-3	—
			C	.468 11.89	.232 5.89	—	2-321598-3	—
		5/16 M8	C	.625 15.88	.232 5.89	—	2-33466-3	—
			C	.625 15.88	.232 5.89	—	2-33467-3	—

¹Requires a 69875 standard TAPETRONIC machine for application.

²Requires a 68250-1 Heavy Duty TAPETRONIC machine for application.

³Part numbers are available in small quantity packages.

SOLISTRAND Heavy Duty Ring Tongue Terminals

Material and Finish:

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Wire Size Circular Mils [mm ²]	Material Thickness Max.	Stud Size	Style	Dim. W	Wire Barrel I.D. Min.	Part Numbers
16-14 2,050-5,180 [1.04-2.62]	.050 1.27	10	A	.343 8.71	.105 2.67	2-34567-1



Style A

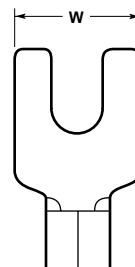
SOLISTRAND Spade Tongue Terminals

Material and Finish:

Terminal Body—Copper per
ASTM B-152, tin plated per
MIL-T-10727

Wire Size Circular Mils [mm ²]	Material Thickness Max.	Stud Size	Dim. W	Wire Barrel I.D. Min.	Part Numbers
22-16 509-3,260 [0.26-1.65]	.033 0.84	2 M2	.182 4.62	.061 1.55	53555-1 ¹
		6 M3.5	.297 7.54	.061 1.55	2-36195-3
		10	.375 9.53	.061 1.55	2-34118-2

¹Available in small packaging quantities.



For Complete Product Information , Order Catalog 65505.

SOLISTRAND Terminals and Splices

Short Spring Spade Tongue Terminals

Material and Finish:

Terminal Body—Phosphor Bronze per ASTM B-103, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mills [mm ²]	Material Thickness Max.	Stud Size	Dim. W	Wire Barrel I.D. Min.	Part Numbers
22-16 509-3,260 [0.26-1.65]	.033 0.84	6 M3.5	.250 6.35	.061 1.55	53120-1 ¹ 53120-2
		8 M4	.244 6.20	.061 1.55	53831-1 ¹ 53831-2
		10	.294 7.47	.061 1.55	53832-2
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	6 M3.5	.250 6.35	.085 2.16	53123-1 ¹ 53123-2
		8 M4	.375 9.53	.085 2.16	53124-1 ¹ 53124-2
			.244 6.20	.085 2.16	53833-2
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	10	.406 10.31	.085 2.16	53125-1 ¹ 53125-2
		6 M3.5	.250 6.35	.129 3.28	53126-1 ¹ 53126-2
		8 M4	.375 9.53	.129 3.28	53127-1 ¹
		10	.312 7.92	.129 3.28	53835-2
			.406 10.31	.129 3.28	53128-1 ¹ 53128-2
			.312 7.92	.129 3.28	53836-2

¹Available in small packaging quantities.

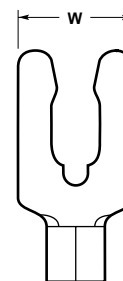


Long Spring Spade Tongue Terminals

Material and Finish:

Terminal Body—Phosphor Bronze per ASTM B-103, tin plated per MIL-T-10727

Wire Size Circular Mills [mm ²]	Material Thickness Max.	Stud Size	Dim. W	Wire Barrel I.D. Min.	Part Numbers
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	10	.375 9.53	.129 3.28	52717-2

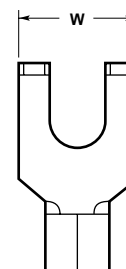


Flanged Spade Tongue Terminals

Material and Finish:

Terminal Body—Copper per ASTM B-152, tin plated per MIL-T-10727

Wire Size Circular Mills [mm ²]	Material Thickness Max.	Stud Size	Dim. W	Wire Barrel I.D. Min.	Part Numbers
22-16 509-3,260 [0.26-1.65]	.033 0.84	6 M3.5	.296 7.52	.061 1.55	2-320749-2
		8 M4	.296 7.52	.061 1.55	52730-1
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	8 M4	.294 7.47	.085 2.16	2-320856-1
12-10 5,180-13,100 [2.62-6.64]	.042 1.07	10	.416 10.57	.129 3.28	2-323144-1



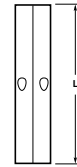
For Complete Product Information, Order Catalog 65505.

SOLISTRAND Terminals and Splices**Butt Splices****Material and Finish:**

Splice Body—Copper per ASTM B-152, tin plated per MIL-T-10727

Terminals and Splices (Continued)

Wire Size Circular Mils [mm ²]	Material Thickness Max.	Style	Dim. L	I.D. Min.	O.D. Max.	Part Numbers
16-14 2,050-5,180 [1.04-2.62]	.033 0.84	Standard	.567 14.40	.085 2.16	.165 4.19	2-31819-1

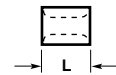
**Standard**

For Complete Product Information , Order Catalog 65505.

STRATO-THERM Terminals and Splices**SOLISTRAND Heat Resistant Splices****Material and Finish:**

Splice Body—Copper per ASTM B-152, Nickel plated per QQ-N-290, 650°F [343°C]

Wire Size Circular Mils [mm ²]	Material Thickness Max.	Style	Dimensions			Part Numbers
			L Max.	ID Min.	OD Max.	Loose Piece
8 13,100-20,800 [6.64-10.5]	.051 1.30	B	.375 9.53	.172 4.37	.296 7.52	2-34318-1



Style-B
Non-Insulation
Support
Parallel Splice

For Complete Product Information , Order Catalog 82011.

Closed End Splices

Vinyl BOMB-TAIL Splices
—VS, ECV*

Material and Finish:

Insulation—Vinyl

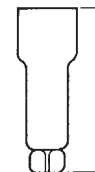
Splice Body—Copper, except where
noted (see chart), tin plated

*Splice Marking:

VS—300V, 90°C
ECV—600V max. Building Wire
—1,000V max. Fixtures and
Signs, 105°C (UL),
90°C (CSA)

Terminals and Splices (Continued)

Wire Size [mm ²] Circular Mils	Splice Insulation Color	Dim. L Max.	Splice Marking* (Voltage & Temp. Rating Code)	Part Numbers	
				Loose Piece	Tape Mounted
22-16 [0.3-1.4] 3,248-4,872	Transparent	.825 20.96	ECV	—	1-330021-0 ¹
22-14 [0.3-2.0] 509-5,180	Purple	.740 18.80	VS	—	2-36964-2
	Purple	.775 19.69	VS	2-328375-3	—
	Purple	.900 22.96	ECV	55843-1	—
22-12 [0.3-3.0] 3,248-11,400	Transparent	1.500 34.10	ECV	53234-1 ²	—
22-10 [0.3-6.0] 3,248-13,100	Purple	1.010 25.65	VS	—	1-36965-1
18-6 [0.8-16] 19,500-42,700	Blue	1.600 40.64	ECV	53891-1	—

¹Splice body material is steel.²Bulk package.Nylon Molded Splices
—ECN, EC*

Material and Finish:

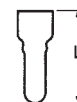
Insulation—Nylon

Splice Body—Copper, tin plated

*Splice Marking:

ECN—300V, 105°C
EC—600V max. Building Wire
—1,000V max. Fixtures and
Signs, 105°C

Wire Size [mm ²] Circular Mils	Splice Insulation Color	Dim. L Max.	Splice Marking* (Voltage & Temp. Rating Code)	Part Numbers	
				Loose Piece	Tape Mounted
22-14 [0.3-2.0] 509-5,180	Transparent	.680 17.27	ECN	—	1-35115-0
22-10 [0.3-6.0] 3,248-13,100	Transparent	.775 19.69	ECN	—	2-35653-1
	Transparent	.970 24.64	EC	53915-1	53915-2
	Transparent	.720 18.29	EC	—	2-328730-1



For Complete Product Information , Order Catalog 65472.

AMPOWER Terminals and Splices

AMPOWER Terminals

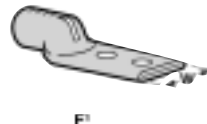
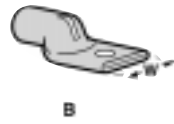
Base Material:

Annealed Copper

(ASTM B-188)

Electrodeposited Tin Plate
(MIL-T-10727)

Terminals and Splices (Continued)



Wire Size	Wire Range	Barrel I.D. Min.	Tongue Thickness Max.	Style	Stud Size	Dimension W Max.	Part Number
300 MCM 152 mm ²	275-325 MCM	.758 19.25	.16 4.06	B	3/8 —	1.40 35.56	325803-1 ²
500 MCM 253 mm ²	450-550 MCM	.981 24.92	.20 5.08	I	1/2 M12	1.80 45.72	53642-2
600 ³ MCM 304 mm ²	550-650 MCM	1.075 27.31	.22 5.59	F	3/8 —	1.95 49.53	326809 ²

¹Per NEMA Specifications.

²No sight hole.

³Two crimps necessary.

For Complete Product Information , Order Catalog 82025.

Special Terminals Slotted Stud Hole

Wire Size Range:

400 to 500 MCM
[203 to 253 mm²]

Wire Size	Wire Range	Stud Size	Barrel I.D. Min.	Tongue Thickness Max.	Dim. W Max.	Part Number
400 MCM —	375-450 MCM	3/8 —	.876 22.25	.18 4.57	1.61 40.89	276963-1
500 MCM —	450-550 MCM	3/8 —	.981 24.92	.20 5.08	1.80 45.72	276964-1



For Complete Product Information, Order Catalog 82025.

AMP-SIMEL Connectors Crimp Lugs for Braided Cable

Cable Size mm ²	Stud Size	Part Number
16	.327 8.3	710026-5
25	.327 8.3	710027-2



For Complete Product Information, Order Catalog 889143.

AMPOWER Terminals and Splices

AMPOWER Quick Disconnect Terminals for Traction Motor and Car Body Leads

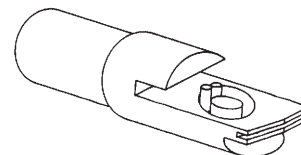
Material:

Body and Pins—Brass per QQ-B-626

Finish—Silver plated per QQ-S-365

Terminals and Splices (Continued)

	Wire Size		Terminal Part No.
	Commercial	Railroad	
	400 MCM	1100/24	53434-1
	500 MCM	1325/24	53435-1



For Complete Product Information, Order Catalog 296545.

AMPOWER Wave Crimp System

Separable Interface

Material:

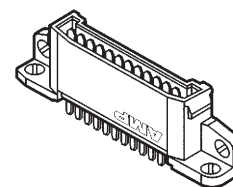
Housing—UL94V-0 rated thermoplastic, black

Contact—Copper alloy silver on termination and mating interface.

Tin lead on header solder and ACTION PIN Tails.

All over nickel base plate.

Header Pin Pitch "A"	Tail Length	Header Assembly Part Numbers	
		Tail Type	Vertical
.100 2.54	.144 3.66	ACTION PIN Tail	765271-1



Self-Aligning Headers

Material and Finish:

Housing—UL94V-0 rated thermoplastic, black

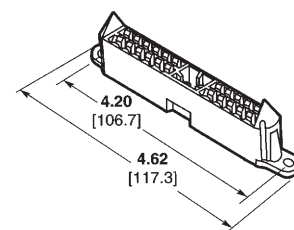
Contact—Copper alloy silver on mating interface

Tin-lead on solder tails.

All over nickel base plate.

Signal contact gold plate.

Tail Length	Tail Type	4 Cable Header 8 Signal Lines ³	4 Cable Header 21 Signal Lines ³
.156 3.96	Solder Tail	—	765265-2
.144 3.66	ACTION PIN Tail	—	765265-5
.122 3.10	Solder Tail	765249-7 ¹	—



¹High temperature material.

²Mates with MINI-TANDEM contact, AMP part number 530553-x. Reference catalog 82055.

For Complete Product Information, Order Catalog 82271.

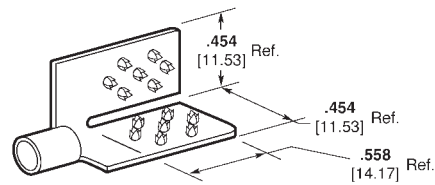
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

TERMI-FOIL Terminals and Splices

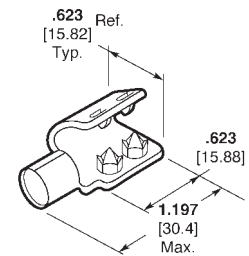
Terminals and Splices (Continued)

Barrel Terminals

.030 [0.76] Max.
Aluminum Foil Thickness



Type 1



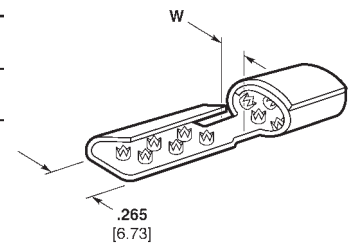
Type 2

Material and Finish	Type	Wire Barrel Range		Terminal Part Number
		AWG	mm ²	
Tin-Plated Copper	1	12-10	3.0-6.0	1-330716-2
Brass Tin-Plated	2	8	7.0-8.0	53660-4

Splices

.030 [0.76] Max.
Aluminum Foil Thickness

Wire Range	Material and Finish	Dim. W	Part Number
Current Carrying Capacity Equal to 10 AWG [5-6 mm ²]	Tin Plated Copper	.170 25.7	1-332006-0

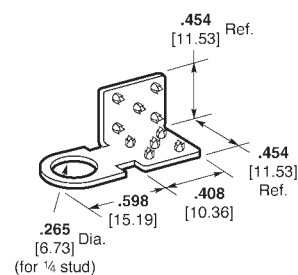


Ring Tongue Terminal

Part No. 276959-2

.030 [0.76] Max.
Aluminum Foil Thickness

Material and Finish:
Copper, tin-plated



For Complete Product information, Order Catalog 82039.

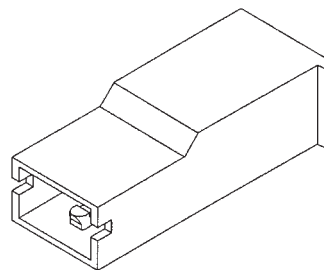
Positive Lock Receptacles

.250 Mark I Series Housings
1 Position
Signal or Power Circuit

Material:
94 V-2, 6/6 Nylon, Natural

Terminals and Splices (Continued)

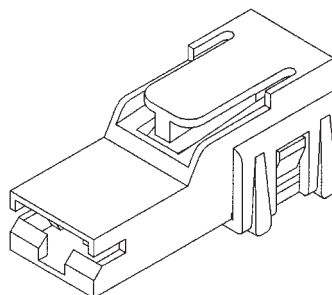
Part No. 154719-1



.250 Mark I Series Housings
1 Position
Signal or Power Circuit

Material:
94 V-2, 6/6 Nylon, Natural

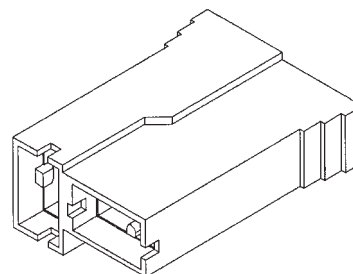
Part No. 520961-1



.250 Mark I Series Housings
2 Position
Keyed-Power Circuit

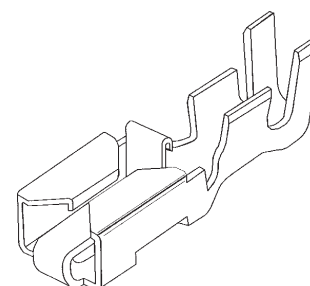
Material:
94 V-2, 6/6 Nylon, Natural

Part No. 926522-2



Mark I 250 Series Receptacles
Stock Thickness: .016
Mating Tab: .250 x .032
[6.35 x 0.81]

Wire Range AWG	Insulation Diameter	Material and Finish	Part Number
20-16	.090-.130 2.29-3.30	Brass/Pre-Tin	1-160759-1
18-14	.090-.155 2.29-3.94	Brass/Tin	154718-3
	.090-.155 2.29-3.94	Phos. Brz./Tin	154718-4
	.135-.195 3.43-4.95	Brass/Tin	63812-1
13-11	.140-.170 3.56-4.32	Brass/Tin	154717-3
12-10	.135-.200 3.43-5.08	Brass/Pre-Tin	790319-3



For Complete Product Information, Order Catalog 889497.

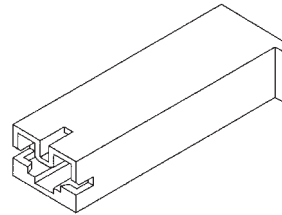
Positive Lock Receptacles

Terminals and Splices (Continued)

.187 Mark II Series Housings
1 Position
Signal or Power Circuit

Part No. 172074-1

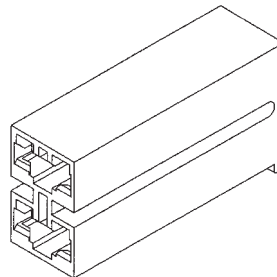
Material:
94 V-2, 6/6 Nylon, Natural



.187 Mark II Series Housings
2 Position
Signal or Power Circuit

Part No. 172210-1

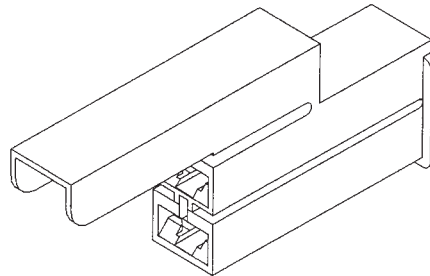
Material:
94 V-2, 6/6 Nylon, Natural



.187 Mark II Series Housings
3 Position
Micro Switch

Part No. 172075-1

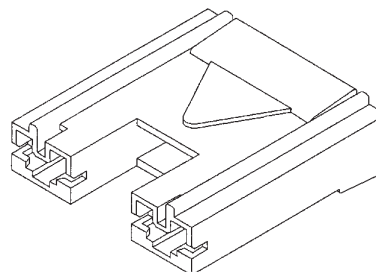
Material:
94 V-2, 6/6 Nylon, Natural



.187 Mark II Series Housings
2 Position
Signal or Power Circuit

Part No. 176498-2

Material:
94 V-2, 6/6 Nylon, Natural



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889497.

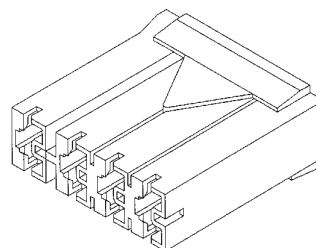
Positive Lock Receptacles

.187 Mark II Series Housings
4 Position
Timer

Material:
94 V-2, 6/6 Nylon, Natural

Terminals and Splices (Continued)

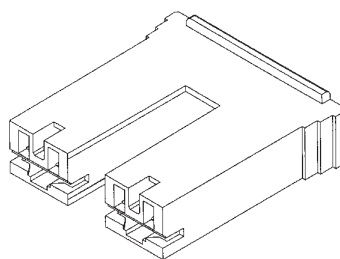
Part No. 174513-1



.250 Mark II Series Housings
2 Position
Water Valve (Electronic)
Liquid Dispensing Valve

Material:
94 V-2, 6/6 Nylon

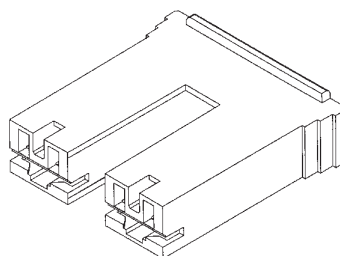
Part No. 520935-1



.250 Mark II Series Housings
1 Position
Signal or Power Circuit

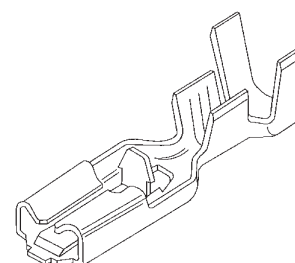
Material:
94 V-2, 6/6 Nylon

Part No. 172076-1



Mark II 187 Series Receptacles

Wire Range AWG	Insulation Diameter	Mating Tab	Stock Thickness	Material and Finish	Part Number
24-20	.060-.110 1.52-2.79	.187 x .020 4.75 x 0.51	.012 0.30	Brass/Tin	63196-1
22-18	.060-.100 1.52-2.54	.250 x .032 6.35 x 0.81	.016 0.41	Brass/Tin	63119-1
20-16	.090-.130 2.29-3.30	.187 x .020 4.75 x 0.51	.012 0.30	Brass/Tin	63195-1
20-16	.060-.110 1.52-2.79	.187 x .032 4.75 x 0.81	.012 0.30	Brass/Tin	63498-1
18-14	.090-.155 2.29-3.94	.250 x .032 6.35 x 0.81	.016 0.41	Brass/Tin	63097-1
				Brass	63097-2
12-10	.150-.200 3.81-5.08	.250 x .032 6.35 x 0.81	.018 0.46	Brass/Tin	63239-1
18-14	.090-.155 2.29-3.94	.250 x .025 6.35 x 0.63	.016 0.41	Brass/Tin	63809-1

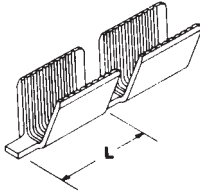


BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889497.

AMPLIVAR Magnet Wire Terminals and Splices

Splices — 9 Serrations, Pigtail Type

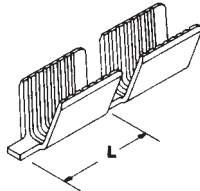


Terminals and Splices (Continued)

Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material Type	Part Number
400-1500	.016 0.41	.080 2.03	.225 5.72	Tin Plated Brass	62303-2 ¹
600-3000	.020 0.51	.110 2.79	.225 5.72	Tin Plated Brass	62304-2
600-3000	.016 0.41	.110 2.79	.225 5.72	Tin Plated Brass	62305-2 ¹
1500-5000	.020 0.51	.110 2.79	.225 5.72	Tin Plated Brass	62306-2
1500-5000	.016 0.41	.110 2.79	.225 5.72	Tin Plated Brass	62307-2 ¹
3000-7000	.020 0.51	.140 3.56	.265 6.73	Tin Plated Brass	62308-2
5000-10,000	.025 0.64	.180 4.57	.265 6.73	Tin Plated Brass	62309-2
7000-13,000	.025 0.64	.180 4.57	.265 6.73	Tin Plated Brass	62310-2
10,000-22,000	.030 0.76	.220 5.59	.340 8.64	Tin Plated Brass	62311-2

¹These splices are recommended for applications using wire size 28 AWG [0.32 mm] or smaller.

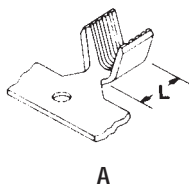
Splices — 7 Serrations, Pigtail Type



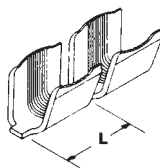
Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material Type	Part Number
600-3000	.020 0.51	.110 2.79	.225 5.72	Brass	62000-1
600-3000	.020 0.51	.110 2.79	.225 5.72	Brass	62157-1 ¹
600-3000	.020 0.51	.110 2.79	.225 5.72	Tin Plated Brass	62157-2 ¹
1500-5000	.020 0.51	.110 2.79	.225 5.72	Brass	62040-2
1500-5000	.020 0.51	.110 2.79	.225 5.72	Tin Plated Brass	62040-1
3000-7000	.020 0.51	.140 3.56	.225 5.72	Brass	62001-1
7000-12,000	.025 0.64	.250 6.35	.225 5.72	Tin Plated Brass	62295-1
7000-13,000	.025 0.64	.180 4.57	.225 5.72	Tin Plated Brass	62002-2

¹These splices are recommended for applications using wire size 28 AWG [0.32 mm] or smaller.

Splices — 5 Serrations, Thru Type



A

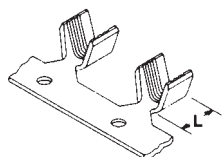


B

Type	Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material Type	Part Number
A	10,400-22,900	.030 0.76	.300 7.62	.310 7.87	Tin Plated Brass	63562-1
B	600-3000	.020 0.51	.110 2.79	.225 5.72	Brass	42192-1 ¹
B	600-3000	.020 0.51	.110 2.79	.225 5.72	Tin Plated Brass	42192-2 ¹
B	1500-5000	.020 0.51	.110 2.79	.225 5.72	Brass	41119-1 ¹

¹These splices are recommended for applications using wire size 28 AWG [0.32 mm] or smaller.

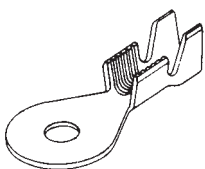
For Complete Product Information, Order Catalog 82221

AMPLIVAR Magnet Wire
Terminals and SplicesSplice — Subminiature,
Thru or Pigtail Type

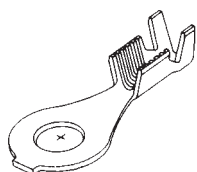
Terminals and Splices (Continued)

Wire Range CMA	Stock Thickness	Crimp Width	Dim. L	Material Type	Part Number
400-1600	.016 0.41	.070 1.78	.100 2.54	Tin Plated Brass	62194-2

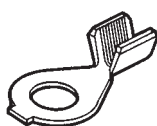
Terminals — Ring Tongue



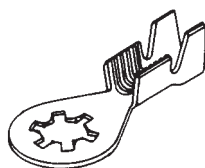
A



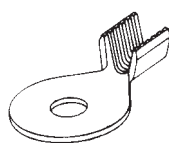
B



C



D



E

Wire Size Range AWG 29-22 [0.287-0.643] mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
B	.040-.060 1.02-1.52	.197 0.76	10	.020 0.51	Tin Plated Brass	63399-1

Wire Size Range AWG 23-19 [0.574-0.912] mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
A	.125-.165 3.18-4.19	.171 4.34	8	.020 0.51	Tin Plated Brass	60323-2
A	.100-.140 2.54-3.56	.197 5	10	.020 0.51	Tin Plated Brass	60319-2

Wire Size Range AWG 22-18 [0.643-1.024] mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
E	—	.171 4.34	8	.025 0.64	Brass	63446-1

Wire Size Range AWG 20-16 [0.813-1.29] mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
A	.125-.165 3.18-4.19	.171 4.34	8	.020 0.51	Tin Plated Brass	60322-2

Wire Size Range AWG 18-14 [1.024-1.628] mm]

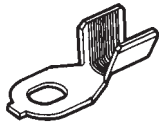
Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
A	.100-.140 2.54-3.56	.171 4.34	8	.020 0.51	Brass	60320-1
A	.100-.140 2.54-3.56	.171 4.34	8	.020 0.51	Tin Plated Brass	60320-2
A	.100-.140 2.54-3.56	.197 5	10	.020 0.51	Brass	60318-1
D	.080-.120 2.03-3.05	.185 4.7	8	.028 0.71	Lu-Bronze ¹	485044-1

¹High conductivity copper-tin-zinc alloy.**Note:** See following page for more variations.

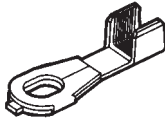
For Complete Product Information, Order Catalog 82221

AMPLIVAR Magnet Wire Terminals and Splices

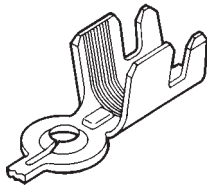
Terminals — Stud Retaining



F



G



N

Terminals and Splices (Continued)

Wire Range AWG 18 -13½ [1.151-1.78 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
F	—	—	8	.020 0.51	Brass	63147-1

Wire Range AWG 14½ [1.539 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
N	—	—	2	.025 0.64	Tin Plated Brass	505036-1

Wire Range AWG 14 -12 [1.628-2.05 mm] or (2) AWG 15 [1.45 mm]

Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
G	—	—	8	.025 0.64	Brass	62755-1

Wire Range AWG 13 -11 [1.83-2.3 mm]

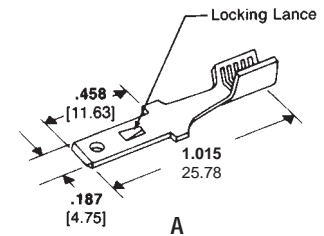
Type	Insulation Dia. Range	Hole Dia.	Stud Size	Stock Thk.	Material Type	Part Number
C	—	.197 5	10	.025 0.64	Brass	640212-1

FASTON Terminal — 187 Series Tabs

Board Thickness: .062-.072 [1.57-1.83]

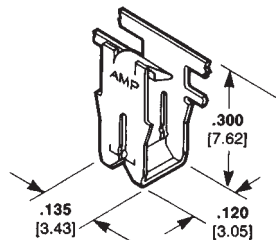
Stock Thickness: .032 [0.81]

Type	Wire Range AWG/mm²	Material Type	Part Number
A	22-16 0.3-1.4	Tin Plated Brass	62447-1



Standard MAG-MATE Magnet Wire Terminals

Poke-In Terminals



Copper Magnet Wire Range		Lead Wire Range ⁴		Stock Thickness		Part Number ^{1,10}
AWG	mm	AWG	mm²	Inch	mm	
33-31 ²	0.18-0.23	20-18	0.5-0.9	.010	0.25	62431-1
30-27 ²	0.25-0.36	20-18	0.5-0.9	.012	0.30	63636-1 ^{5,8} 62429-1
27-23 ²	0.36-0.57	20-18	0.5-0.9	.016	0.41	63754-1 ⁶ 62935-1
22-20 ³	0.64-0.81	20-18	0.5-0.9	.016	0.41	62420-1
19-17 ³	0.91-1.15	20-18	0.5-0.9	.016	0.41	62833-1

¹Strip product part numbers shown.

²Two magnet wires may be terminated in the same terminal slot if diameters are equal.

³Signal magnet wire only.

⁴Solid or overcoated stranded lead wire only. Product will also accept Poke-In Tab Terminal on following page.

⁵Special Nicker location.

⁶Special anti-overstress.

⁸Special cavity detail required.

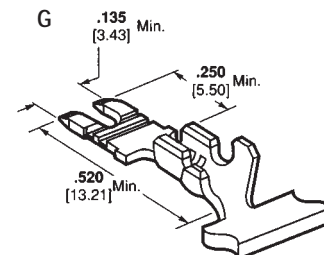
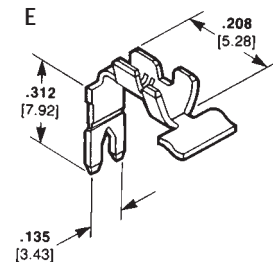
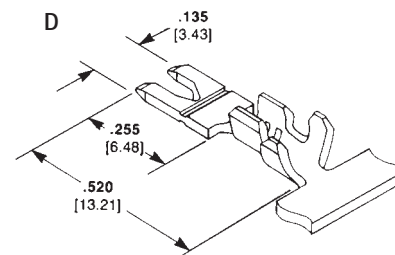
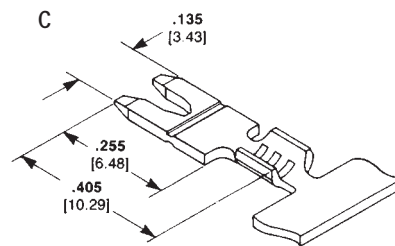
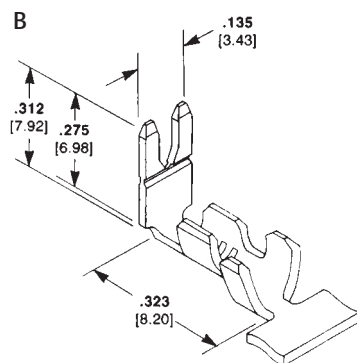
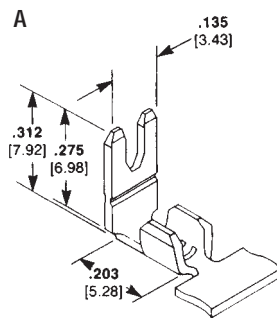
¹⁰Recognized under the Component Program of Underwriters Laboratories, Inc.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82221

Standard MAG-MATE Magnet Wire Terminals

Poke-In Tab Terminals



Terminals and Splices (Continued)

Type	Lead Wire Size		Insulation O.D.		Stock Thickness		Part Number ¹
	AWG	mm ²	Inch	mm	Inch	mm	
A	22-18	0.3-0.9	—	—	.018	0.46	62895-1
B	22-18	0.3-0.9	.060-.100	1.52-2.54	.018	0.46	62896-1 ³
C	22-18	0.3-0.9	—	—	.020	0.51	62897-1 ³
D	22-18	0.3-0.9	.060-.100	1.52-2.54	.020	0.51	62898-1 ³
E	18-14	0.8-2.0	.090-.140	2.29-3.56	.020	0.51	63458-1
G	22-18	0.3-0.9	.060-.100	1.52-2.54	.020	0.51	63574-1 ²

¹Strip product part numbers shown.

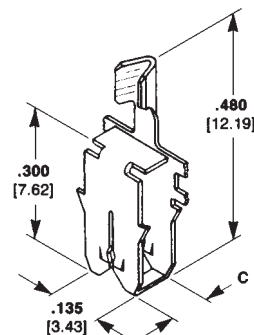
²Same as Part Number 62898-1 except tab serration on top of tab only.

³Recognized under the Component Program of Underwriters Laboratories, Inc.

Crimp Wire Barrel Terminals — .300 [7.62] Series Box

Material:

Tin plated brass



Copper Magnet Wire Range		Dim. C	Lead Wire Range		Stock Thickness	Part Number ¹
AWG	mm		AWG	mm ²		
27-23 ²	0.36-0.57	.120 3.05	24-20	0.2-0.6	.016 0.41	62459-1 ^{3,4}

¹Strip product part numbers shown.

²Two magnet wires may be terminated in the same terminal slot if diameters are equal.

³Strip reeled to feed through Mini-Applicator to crimp lead wire first; magnet wire termination is secondary operation.

⁴Recognized under the Component Program of Underwriters Laboratories, Inc.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82221

Standard MAG-MATE Magnet Wire Terminals

Posted Terminal

Material:

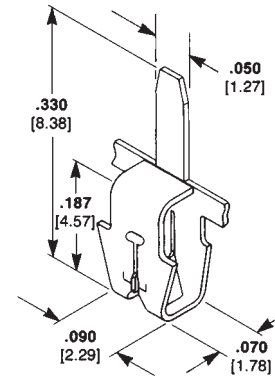
Tin plated brass

Terminals and Splices (Continued)

Copper Magnet Wire Range: 33-31¹ AWG [0.18-0.23 mm]
Stock Thickness: .010 [0.25]
Strip Product Part No. 62934-1²

¹Two magnet wires may be terminated in the same terminal slot if diameters are equal.

²Loose piece product part number.



Pin I/O Terminal — .500 [12.7] Box

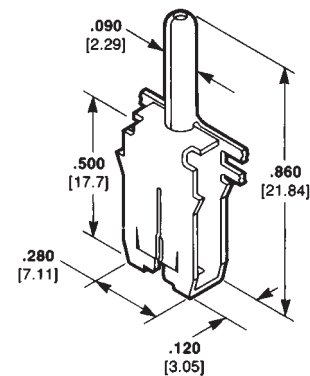
Material:

Tin plated brass

Copper Magnet Wire Range: 19 1/2-17¹ AWG [0.86-1.15 mm]
Stock Thickness: .016 [0.41]
Strip Product Part No. 63278-1²

¹Two magnet wires may be terminated in the same terminal slot if diameters are equal.

²Varnish resistant coating.



Tab Terminal — 110 Series FASTON

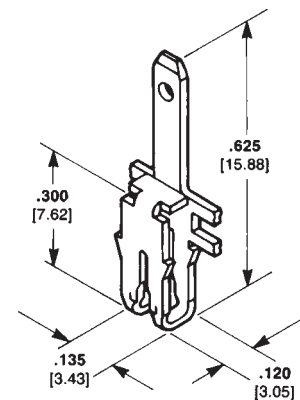
Material:

Tin plated brass

Copper Magnet Wire Range		Tab Size	Stock Thickness		Part Number ¹
AWG	mm		Tab Section	Mag. Wire Section	
23-20 ²	0.57-0.81	.020x.110	.020	.016	63486-1
		0.51x2.79	0.51	0.41	

¹Strip product part numbers.

²Varnish resistant coating.



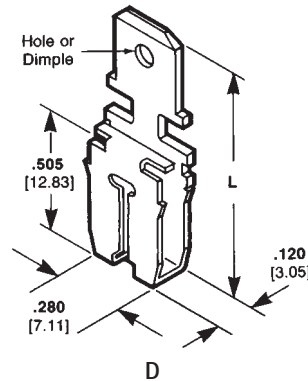
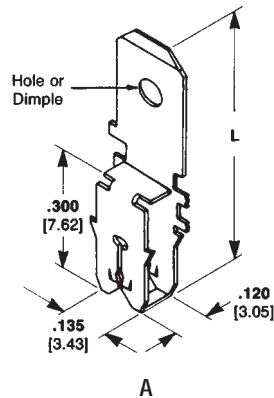
For Complete Product Information, Order Catalog 82221

Standard MAG-MATE Magnet Wire Terminals

Tab Terminal — 187 Series FASTON

Material:

Tin plated brass



Type	Copper Magnet Wire Range		L Dim.	Tab Feature	Tab Size	Stock Thickness		Part Number ¹
	AWG	mm				Tab Section	Mag. Wire Section	
A	27-23 ²	0.36-0.57	.625	Dimple	.020x.187	.020	.016	62514-1 ⁶
			15.88		0.51x4.75	0.51	0.41	
			.660	Hole	.020x.187	.020	.016	63585-1
			16.76		0.51x4.75	0.51	0.41	
	23 ²	0.57	.625	—	.020x.187	.020	.016	63776-1
			15.88		0.51x4.75	0.51	0.41	
D	22-20 ³	0.64-0.81	.625	Dimple	.020x.187	.020	.016	62511-1 ⁶
			15.88		0.51x4.75	0.51	0.41	
	19-17 ³	0.91-1.15	.625	Dimple	.020x.187	.020	.020	63273-1
			15.88		0.51x4.75	0.51	0.51	
	19-17 ³	0.91-1.15	.830	Hole	.020x.187	.020	.020	63643-1 ⁵
			21.08		0.51x4.75	0.51	0.51	
	17.5-16 ²	1.09-1.29	.830	Hole	.020x.187	.020	.020	63667-1 ⁴
			21.08		0.51x4.75	0.51	0.51	

¹Strip product part numbers shown.

²Two magnet wires may be terminated in the same terminal slot if diameters are equal.

³Single magnet wire only.

⁴Varnish resistant coating.

⁵Only aluminum.

⁶Recognized under the Component Program of Underwriters Laboratories, Inc.

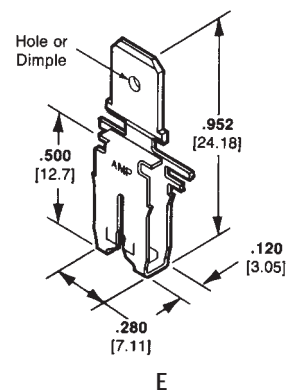
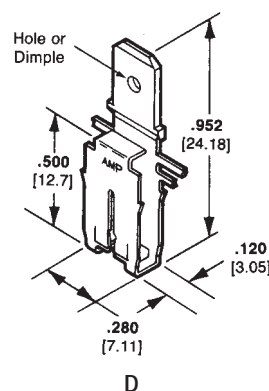
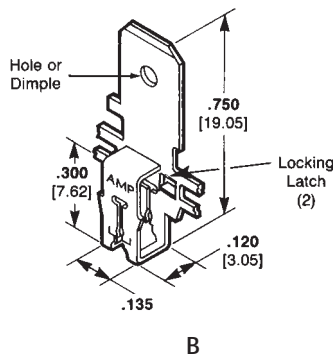
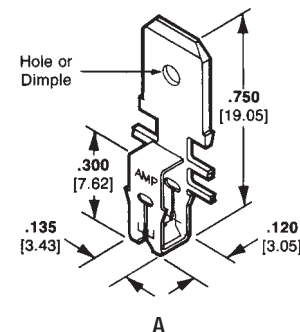
Tab Terminal — 250 Series FASTON

Material:

Tin plated brass

Note:

See following page for part numbers.



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82221

Standard MAG-MATE Magnet Wire Terminals

Tab Terminal — 250 Series FASTON (Continued)

Note:

See preceding page for illustrations.

Terminals and Splices (Continued)

Type	Copper Magnet Wire Range		Tab Feature	Tab Size	Stock Thickness		Part Number ¹
	AWG	mm			Tab Section	Mag. Wire Section	
A	30-27 ²	0.25-0.36	Dimple Hole	.032x.250	.032	.012	62651-1 ⁴
			Dimple & Hole	0.81x6.35	0.81	0.30	
B	27-23 ²	0.36-0.57	Dimple Hole	.032x.250	.032	.016	62652-1 ⁴
			Dimple & Hole	0.81x6.35	0.81	0.41	
B	33-31 ²	0.18-0.23	Dimple Hole	.032x.250	.032	.010	63618-1
			Dimple & Hole	0.81x6.35	0.81	0.25	
D	30-27 ²	0.25-0.36	Dimple Hole	.032x.250	.032	.012	63499-1
			Dimple & Hole	0.81x8.35	0.81	0.30	
D	19-17 ²	0.91-1.15	Hole	.031x.250	.032	.020	63464-3 ³
			Hole	0.81x6.35	0.81	0.51	
E	16-15 ²	1.29-1.45	Hole	.032x.250	.032	.020	63459-2
			Hole	0.81x6.35	0.81	0.51	
E	19-17 ²	0.91-1.15	Dimple	.032x.250	.032	.020	62923-1 ³
			Dimple	0.81x6.35	0.81	0.51	

¹Strip product part numbers shown.

²Two magnet wires may be terminated in the same terminal slot if diameters are equal.

³Varnish resistant coating.

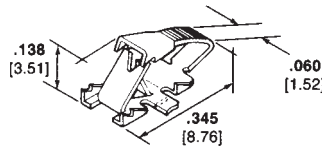
⁴Recognized under the Component Program of Underwriters Laboratories, Inc.

Mini MAG-MATE Magnet Wire Terminals

Poke-In Tab Terminal

Material:

Tin plated brass



Copper Magnet Wire Range		Mating Tab Size	Lead Wire Range ¹		Part Number
AWG	mm		AWG	mm	
52-42	0.02-0.06	—	22-18	0.3-0.9	62781-1
38-40	0.10-0.25	—	22-18	0.3-0.9	62606-1

¹Solid or overcoated stranded lead wire only.

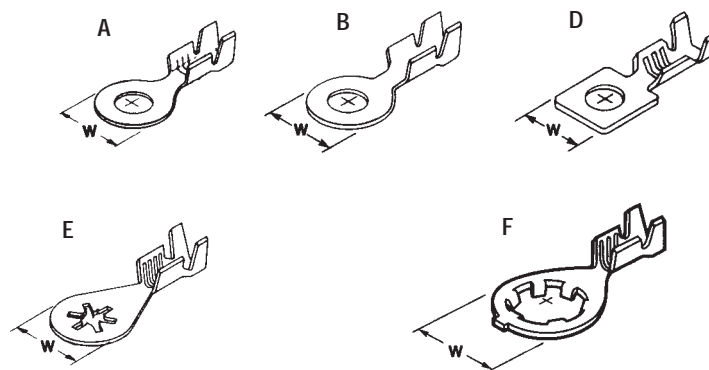
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82221

Machine Applied Terminations, Open Barrel

Ring Tongue Terminals — Insulation Support

Terminals and Splices (Continued)



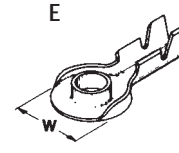
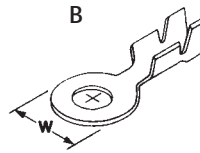
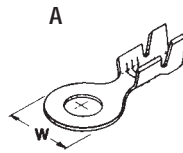
Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
D	26-24	0.12-0.6	.035-.065 [0.89-1.65]	.094 [2.39]	.012 [0.31]	Brass	.156 [3.96]	61653-1
B	26-22	0.12-0.4	.040-.060 [1.02-1.52]	4	.014 [0.36]	Tin Plated Brass	.190 [4.83]	42547-2
				6	.014 [0.36]	Tin Plated Brass	.250 [6.35]	60553-1
A	24-20	0.2-0.6	.048-.078 [1.22-1.98]	8	.020 [0.51]	Tin Plated Brass	.312 [7.93]	42508-2
				10	.020 [0.51]	Tin Plated Brass	.312 [7.93]	42164-2
B	22-20	0.3-0.6	.070-.120 [1.78-3.05]	.126 [3.20]	.020 [0.51]	Tin Plated Brass	.210 [5.33]	62638-1
				8	.020 [0.51]	Brass	.296 [7.52]	42036-1
A	22-18	0.3-0.9	.080-.110 [2.03-2.79]	8	.020 [0.51]	Tin Plated Brass	.296 [7.52]	42037-1
				10	.020 [0.51]	Brass	.296 [7.52]	42036-2
				10	.020 [0.51]	Tin Plated Brass	.296 [7.52]	42037-2
E	22-18	0.3-0.9	.080-.120 [2.03-3.05]	8	.025 [0.69]	Tin Plated Steel	.370 [9.40]	640204-1
				10	.025 [0.69]	Tin Plated Steel	.370 [9.40]	640271-1
				6	.025 [0.64]	Tin Plated Brass	.370 [9.40]	61588-1
					.181 [4.60]	Brass	.370 [9.40]	61436-1
F	22-16	0.3-1.4	.100-.140 [2.54-3.56]	.181 [4.60]	.025 [0.64]	Tin Plated Brass	.370 [9.40]	61436-2
				.181 [4.60]	.025 [0.64]	Tin Plated Steel	.370 [9.40]	61556-1
				.261 [6.63]	.025 [0.64]	Tin Plated Brass	.455 [11.56]	61283-1
			.105 Max. [2.67]	.177 [4.50]	.025 [0.64]	Brass	.370 [9.40]	350509-1

For Complete Product Information, Order Catalog 82227

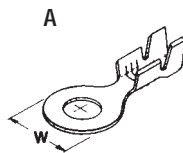
Machine Applied Terminations, Open Barrel

Ring Tongue Terminals — Insulation Support (continued)

Terminals and Splices (Continued)



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
B	20-16	0.5-1.4	.090-.120 [2.29-3.05]	6	.025 [0.69]	Brass	.230 [5.59]	61764-1
			.100-.135 [2.54-3.43]	4	.025 [0.69]	Tin Plated Brass	.230 [5.59]	61386-1
B	20-16	0.5-1.4	.075-.110 [1.91-2.79]	.132 [3.35]	.025 [0.64]	Brass	.246 [6.25]	42721-1
A	20-16	0.5-1.4	.100-.140 [2.54-3.56]	10	.030 [0.76]	Br. Tin Plated Brass	.342 [8.69]	640008-1
			.080-.120 [2.03-3.05]	1/4"	.020 [0.51]	Brass	.468 [11.89]	60700-3
			.080-.120 [2.03-3.05]	1/4"	.020 [0.51]	Tin Plated Brass	.468 [11.89]	60700-2
			.100-.140 [2.54-3.56]	10	.020 [0.51]	Brass	.342 [8.69]	60394-1
			.110-.140 [2.79-3.56]	6	.030 [0.76]	Tin Plated Brass	.342 [8.69]	42933-2
			.120-.170 [3.05-4.32]	.194 [4.93]	.020 [0.51]	Brass	.335 [8.51]	60546-1



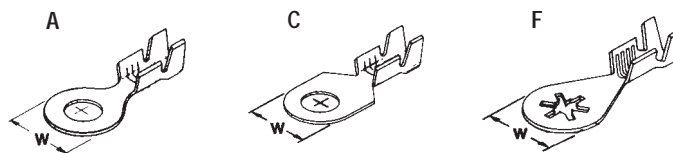
Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	18-14	0.8-2.0	.100-.140 [2.54-3.56]	8	.025 [0.64]	Tin Plated Brass	.342 [8.69]	60024-2
				10	.025 [0.64]	Tin Plated Brass	.342 [8.69]	60433-2
				1/4"	.025 [0.64]	Tin Plated Brass	.342 [8.69]	60625-1
				6	.018 [0.46]	Brass	.295 [7.49]	60770-1
				6	.018 [0.46]	Tin Plated Brass	.295 [7.49]	60770-2
				8	.018 [0.46]	Brass	.295 [7.49]	60771-1
				8	.018 [0.46]	Tin Plated Brass	.295 [7.49]	60771-2
				10	.018 [0.46]	Brass	.295 [7.49]	60772-1
				10	.018 [0.46]	Tin Plated Brass	.295 [7.49]	60772-2
				10	.018 [0.46]	Tin Plated Brass	.295 [7.49]	60772-3
			.140-.190 [3.56-4.83]	10	.030 [0.76]	Tin Plated Brass	.342 [8.69]	61397-1
			.080-.150 [2.03-3.81]	1/4"	.030 [0.76]	Tin Plated Brass	.490 [12.45]	61867-2

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

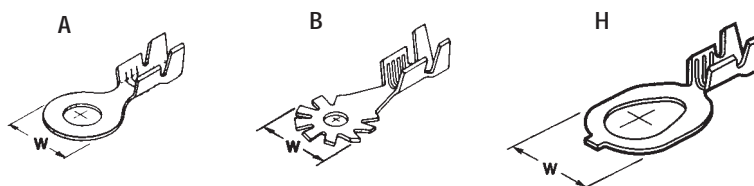
For Complete Product Information, Order Catalog 82227

Machine Applied
Terminations, Open BarrelRing Tongue Terminals —
Insulation Support (continued)

Terminals and Splices (Continued)



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
F	18-14	0.8-2.0	.105-.145 [2.67-3.68]	8	.024 [0.61]	Stainless Steel	.370 [9.40]	640051-1 ¹
				6	.025 [0.64]	Tin Plated Steel	.370 [9.40]	61793-1
				8	.025 [0.64]	Tin Plated Steel	.370 [9.40]	61794-1
				8	.025 [0.64]	Brass	.370 [9.40]	61794-4
			.105-.145 [2.67] or (2).110 [2.79]	10	.025 [0.64]	Tin Plated Steel	.445 [11.30]	63482-1
				10	.024 [0.61]	Stainless Steel	.370 [9.40]	640052-1 ¹
			.105-.145 [2.67-3.68]	10	.025 [0.64]	Tin Plated Steel	.370 [9.40]	350436-2
				10	.025 [0.64]	Tin Plated Steel	.445 [11.30]	61795-1
				10	.025 [0.64]	Tin Plated Brass	.445 [11.30]	61795-3
A	18-14	0.8-2.0	.080-.150 [2.03-3.81]	1/2"	.030 [21.59]	Tin Plated Brass	.850 [21.59]	61863-2
C	18-14	0.8-2.0	.085-.140 [2.16-3.56]	1/4"	.025 [0.69]	Tin Plated Brass	.470 [11.94]	485029-1
			.085-.140 [2.16-3.56]	5-16"	.025 [0.69]	Tin Plated Brass	.470 [11.94]	485030-1

¹Stainless steel wire connectors cannot be certified under the current CSA Standard.

Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
B	18-14	0.8-2.0	.085-.140 [2.16-3.56]	10	.025 [0.64]	Tin Plated Steel	.470 [11.94]	350080-1
A	18-14	0.8-2.0	.120-.175 [3.05-4.45]	10	.020 [0.51]	Pre-Ni Plated Steel	.342 [8.69]	350199-1
H	18-14	0.8-2.0	.120-.170 [3.05-4.32]	6-10	.016 [0.41]	Pre-Tin Plated Brass	.300 [7.62]	350981-2
A	18-14	0.8-2.0	.140-.190 [3.56-4.83]	8	.030 [0.76]	Tin Plated Brass	.342 [8.69]	640102-1

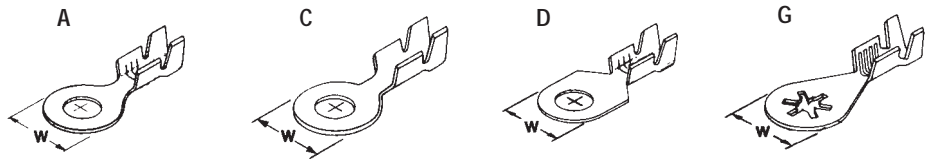
BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82227

Machine Applied Terminations, Open Barrel

Ring Tongue Terminals — Insulation Support

Terminals and Splices (Continued)



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	16-14	1.4-2.0	.120-.180 [3.05-4.57]		.257 [6.53]	Brass	.470 [11.94]	42751-1
					.257 [6.53]	Tin Plated Brass	.470 [11.94]	42751-2
					.257 [6.53]	Phos. Bronze	.470 [11.94]	42751-3
					.281 [7.14]	Tin Plated Brass	.470 [11.94]	42938-2
					.323 [8.20]	Tin Plated Brass	.470 [11.94]	42752-2
				3/8"	.040 [1.02]	Tin Plated Brass	.687 [17.45]	61336-1
G	16-12	1.25-3.0	.130-.170 [3.30-4.32]	8	.025 [0.64]	Brass	.370 [9.40]	61624-1
D	14-12	2.0-3.0	.170-.210 [4.32-5.33]	10	.040 [1.02]	Tin Plated Brass	.425 [10.80]	42639-1
C	12-10	3-6	.170-.210 [4.32-5.33]	6	.040 [1.02]	Tin Plated Brass	.343 [8.71]	61424-1
A	12-10	3-6	.150-.210 [3.81-5.33]	1/4"	.040 [1.02]	Tin Plated Copper	.535 [13.59]	61844-1
G	12-10	3-6	.125-.220 [3.18-5.59]	10	.025 [0.64]	Tin Plated Steel	.470 [11.94]	62613-2
C	12-10	3-6	.150-.210 [3.81-5.33]	10	.030 [0.76]	Brass	.470 [11.94]	42722-1
				8	.040 [1.02]	Tin Plated Brass	.343 [8.71]	42863-2
				10	.040 [1.02]	Brass	.343 [8.71]	42864-1
				10	.040 [1.02]	Tin Plated Brass	.343 [8.71]	42864-2
A	12-10	3-6	.150-.210 [3.81-5.33]	1/4"	.030 [0.76]	Tin Plated Brass	.470 [11.94]	62691-2
A	12-8	3-8	.150-.220 [3.81-5.59]		.344 [8.74]	Tin Plated Brass	.687 [17.45]	42946-2
					.405 [10.29]	Br Tin Plated Brass	.687 [17.45]	42947-3
D	10-8	5-8	.190-.230 [4.83-5.84]	10	.040 [1.02]	Br Tin Plated Brass	.425 [10.80]	640249-1
D	10-6	5-15	.220-.315 [5.59-8.00]	10	.040 [1.02]	Tin Plated Brass	.550 [13.97]	61352-1
				1/4"	.040 [1.02]	Tin Plated Brass	.550 [13.97]	42899-2
				5/16"	.040 [1.02]	Tin Plated Brass	.550 [13.97]	42913-2
				10	.040 [1.02]	Tin Plated Brass	.375 [9.53]	61866-1
A	10-6	5-15	.145-.290 [3.68-7.37]	1/4"	.040 [1.02]	Br Tin Plated Brass	.490 [12.45]	61868-1

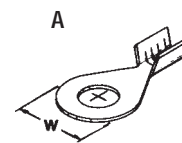
For Complete Product Information, Order Catalog 82227

Machine Applied Terminations, Open Barrel

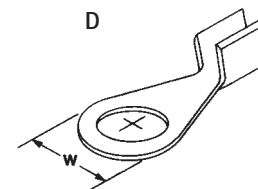
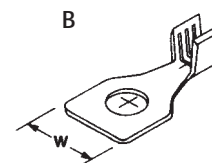
Ring Tongue Terminals — Non-Insulation Support (continued)

Terminals and Splices (Continued)

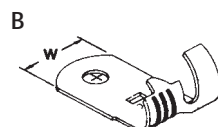
Type	Wire Range		Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²					
A	22-18	0.3-0.9	6	.020 [0.51]	Tin Plated Brass	.300 [7.62]	62686-2
				.130 [3.30]	Tin Plated Brass	.234 [5.94]	60250-2
				.025 [0.64]	Tin Plated Brass	.250 [6.35]	42054-2
A	18-14	0.8-2	6	.025 [0.64]	Brass	.300 [7.62]	42110-1
				.025 [0.64]	Brass	.300 [7.62]	42110-3
				.025 [0.64]	Brass	.300 [7.62]	42110-3



Type	Wire Range		Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²					
B	10-8	5-8	10	.040 [1.02]	Tin Plated Brass	.385 [9.78]	42673-2
D	10-6	5-15	5/16"	.050 [1.27]	Tin Plated Brass	.550 [13.97]	61546-1

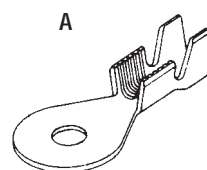


Ring Tongue Terminals — Flag



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
B	18-12	0.8-3	.110-.210 [2.79-5.33]	.146 [3.71]	.018 [0.46]	Tin Plated Brass	.376 [9.55]	42189-1
				.172 [4.37]	.018 [0.46]	Tin Plated Brass	.376 [9.55]	42190-1
				.203 [5.16]	.018 [0.46]	Tin Plated Brass	.376 [9.55]	42191-1

Ring Tongue Terminals — AMPLIVAR



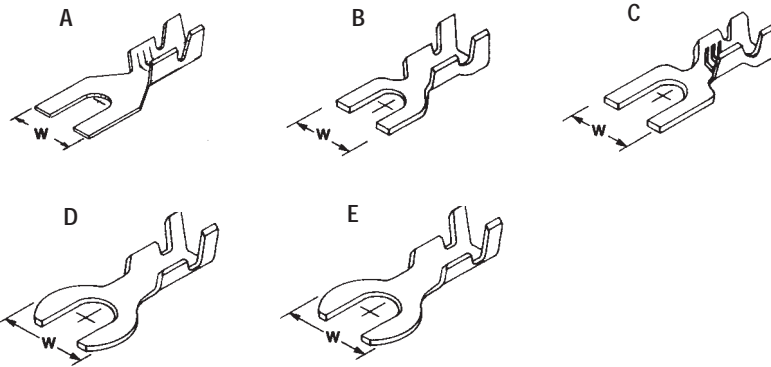
Type	Wire Range		Insul. Size	Hole Dia.	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²							
A	(2)17 or (2)15	1.15 or 1.45	.150-.190 [3.68-4.83]	.171 [4.34]	8	.025 [0.64]	Tin Plated Brass	.342 [8.69]	60752-2

For Complete Product Information, Order Catalog 82227

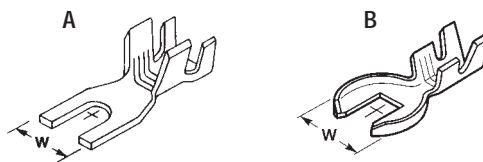
Machine Applied Terminations, Open Barrel

Spade Tongue Terminals — Insulation Support

Terminals and Splices (Continued)



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
E	28-22	0.08-0.4	.035-.045 [0.89-1.14]	5	.016 [0.41]	Tin Plated Brass	.240 [6.10]	350502-1
A	24-20	0.2-0.6	.048-.078 [1.22-1.98]	6	.014 [0.36]	Tin Plated Brass	.250 [6.35]	60445-2
				10	.014 [0.36]	Tin Plated Brass	.300 [7.62]	60501-1
D	24-20	0.2-0.6	.075-.100 [1.91-2.54]	4	.020 [0.51]	Tin Plated Brass	.250 [6.35]	61238-1
C	20-16	0.5-1.4	.100-.140 [2.54-3.56]	6	.020 [0.51]	Brass	.280 [7.11]	60389-1
				8	.020 [0.51]	Brass	.280 [7.11]	60390-1
B	18-14	0.8-2	.130-.180 [3.30-4.57]	8	.025 [0.64]	Tin Plated Brass	.312 [7.92]	60251-2
				6	.020 [0.51]	Tin Plated Brass	.275 [6.98]	60725-1
A	18-14	0.8-2	.100-.140 [2.54-3.56]	6	.018 [0.46]	Tin Plated Brass	.296 [7.52]	60773-2
				8	.018 [0.46]	Brass	.296 [7.52]	60774-1
				8	.018 [0.46]	Tin Plated Brass	.296 [7.52]	60774-2
				10	.018 [0.46]	Brass	.296 [7.52]	60775-1



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
B	18-14	0.8-2	.120-.180 [3.05-4.57]	.205 x .291 [5.21 x 7.39]	.030 [0.76]	Tin Plated Copper	.490 [12.45]	60998-1
A	10-6	5-15	.145-.290 [3.68-7.37]	10	.040 [1.02]	Tin Plated Brass	.375 [9.52]	61855-1

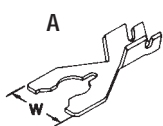
For Complete Product Information, Order Catalog 82227

Machine Applied Terminations, Open Barrel

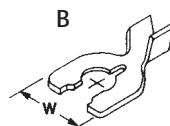
Spade Tongue Terminals — Insulation Support (continued)

Spring Spade

Terminals and Splices (Continued)



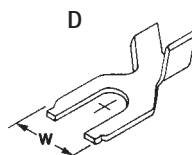
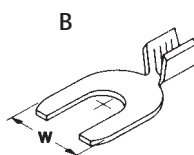
Insulation Support



Non-Insulation Support

Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	18-14	0.8-2	.100-.140 [2.54-3.56]	6	.030 [0.76]	Tin Plated Brass	.343 [8.71]	60187-2
				8	.030 [0.76]	Tin Plated Brass	.343 [8.71]	42168-2
				10	.030 [0.76]	Tin Plated Brass	.343 [8.71]	42169-2
B	20-16	0.5-1.4	—	.138 [3.51]	.020 [0.51]	Tin Plated Brass	.260 [6.60]	485073-1
	18-14	0.8-2	—	8	.020 [0.51]	Tin Plated Brass	.315 [8.00]	350568-1
	14-10	2.0-5.0	—	10	.040 [1.02]	Tin Plated Brass	.372 [9.45]	63610-2

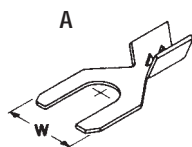
Spade Tongue Terminals — Non-Insulation Support



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
D	20-16	0.5-1.4	—	6	.020 [0.51]	Tin Plated Brass	.275 [6.99]	42318-2
B	12-10	3-6	—	8	.030 [0.76]	Tin Plated Brass	.312 [7.92]	42113-2

Spade Tongue Terminals

Spade Insulation Piercing



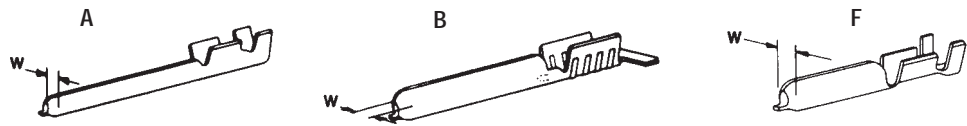
Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	28-22	0.08-0.4	.035-.040 [0.89-1.02]	5	.016 [0.41]	Brass	.250 [6.35]	61498-1
						Tin Plated Brass	.250 [6.35]	61498-2
A	26-22	0.12-0.4	.045-.050 [1.14-1.27]	5	.016 [0.41]	Tin Plated Brass	.250 [6.35]	60234-2
A	20-18	0.5-0.8	.065-.080 [1.65-2.03]	5	.020 [0.51]	Tin Plated Brass	.250 [6.35]	42339-2

For Complete Product Information, Order Catalog 82227

Machine Applied
Terminations, Open Barrel

Pins

Terminals and Splices (Continued)



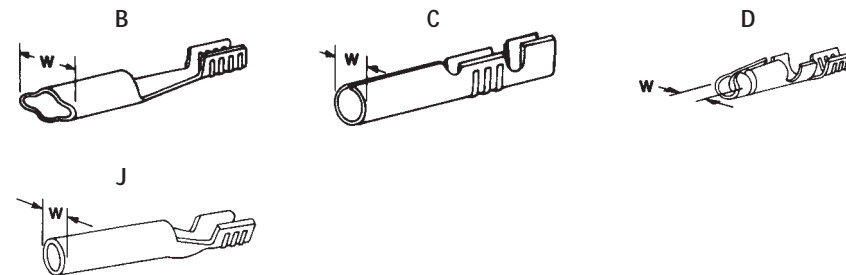
Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	28-26	0.08-0.12	.042-.073 [1.07-1.85]	.080 [2.03]	.010 [0.25]	Tin Plated Brass	.080 [2.03]	350053-2
F	24-20	0.2-0.6	.060-.103 [1.52-2.62]	.125 [3.18]	.016 [0.41]	Brass	.125 [3.18]	62074-1
B	18-14	0.9-2.0	—	.109 [2.77]	.016 [0.41]	Tin Plated Brass	.109 [2.77]	61013-2 ¹
						Brass	.109 [2.77]	62616-1

¹Can be molded.

Receptacles



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	24-20	0.2-0.6	.048-.071 [1.22-1.8]	.040 [1.02]	.012 [0.31]	Tin Plated Phos. Br.	.095 [2.41]	42428-5
				.055 [1.4]	.013 [0.33]	Tin Plated Phos. Br.	.095 [2.41]	60885-2
E	24-20	0.2-0.6	.070 Max. [1.78]	.062 [1.57]	.010 [0.25]	Tin Plated Brass	.100 [2.54]	61622-1



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
C	24-18	0.2-0.9	.045-.085 [1.14-2.16]	.093 [2.36]	.012 [0.31]	Tin Plated Brass	.115 [2.92]	42827-2
D	22-18	0.4-0.9	—	.093 [2.36]	.010 [0.26]	Brass	.115 [2.92]	60440-1
J	22-18	0.4-0.9	—	.125 [3.18]	.014 [0.36]	Brass	.150 [3.81]	63381-1
B	20-16	0.6-1.4	—	.090 [2.29]	.018 [0.46]	Tin Plated Phos. Br.	.235 [5.97]	60733-1 ¹

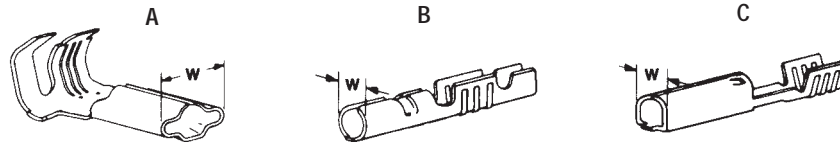
¹Corrugated serrations can be bent 90°.

For Complete Product Information, Order Catalog 82227

Machine Applied
Terminations, Open Barrel

Receptacles (continued)

Terminals and Splices (Continued)



Type	Wire Range		Insul. Size	Stud Size/Dia.	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²						
A	20-14	0.6-2.0	.120-.170 [3.04-4.31]	.090 [2.29]	.018 [0.46]	Tin Plated Phos. Br.	.235 [5.97]	42745-2 60376-1 ¹
B	18-16	0.9-1.4	.090-.120 [2.29-3.05]	.093 [2.36]	.014 [0.36]	Tin Plated Brass	.115 [2.92]	42101-2 ²
C	18-14	0.9-2.0	—	.109 [2.77]	.014 [0.36]	Brass	.133 [3.38]	61012-1 ³
						Tin Plated Brass	.133 [3.38]	61012-3 ³

¹Without locking dimple.²Has locking feature for pin with indent.³Can be molded.

SHUR-PLUG Terminals

.156 [3.96] Diameter



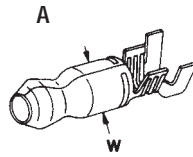
Type	Wire Range		Insul. Size	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²					
A	20-16	0.6-1.4	.095-.115 [2.41-2.92]	.018 [0.46]	Pre Tin Plated Brass	.159 [4.04]	61388-1
A	18-14	0.9-2	.085-.125 [2.16-3.18]	.018 [0.46]	Brass	.159 [4.04]	60766-1
					Pre Tin Plated Brass	.159 [4.04]	60766-2
B	18-14	0.9-2	—	.018 [0.46]	Pre Tin Plated Brass	.159 [4.04]	61802-1

For Complete Product Information, Order Catalog 82227

Machine Applied
Terminations, Open BarrelSHUR-PLUG Terminals
(continued)

.180 [4.57] Diameter

Terminals and Splices (Continued)

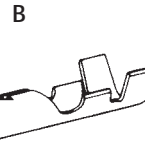
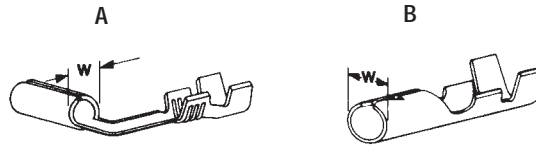


Type	Wire Range		Insul. Size	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²					
A	24-22	0.2-0.4	.058-.082 [1.47-2.08]	.018 [0.46]	Tin Ni. Plated Brass	.180 [4.57]	62416-1 ¹
A	20-16	0.6-1.4	.090-.125 [2.29-3.18]	.018 [0.46]	Brass	.180 [4.57]	505038-1 ¹
A	18-14	0.9-2	.090-.125 [2.29-3.18]	.018 [0.46]	Tin Plated Brass	.180 [4.57]	60793-1 ¹
			.090-.125 [2.29-3.18]	.018 [0.46]	Tin Plated Brass	.180 [4.57]	62739-1 ¹
			.120-.175 [3.05-4.45]	.018 [0.46]	Tin Plated Brass	.180 [4.57]	60660-1 ¹
			.120-.175 [3.05-4.45]	.018 [0.46]	Brass	.180 [4.57]	60660-2 ¹

¹Can be molded.

SHUR-PLUG Receptacles

.156 [3.96] Diameter



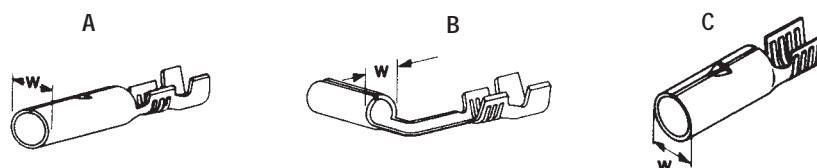
Type	Wire Range		Insul. Size	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²					
B	22-18	0.4-0.9	.085-.125 [2.16-3.18]	.016 [0.41]	Tin Plated Brass	.190 [4.83]	42581-2
A	20-16	0.6-1.4	.100-.140 [2.54-3.56]	.016 [0.41]	Brass	.190 [4.83]	60017-3
B	18-14	0.9-2	.130-.175 [3.3-4.45]	.016 [0.41]	Tin Plated Brass	.190 [4.83]	42142-1
					Brass	.190 [4.83]	42142-2

For Complete Product Information, Order Catalog 82227

Machine Applied
Terminations, Open BarrelSHUR-PLUG Receptacles
(continued)

.180 [4.57] Diameter

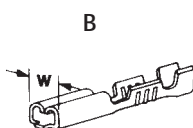
Terminals and Splices (Continued)



Type	Wire Range		Insul. Size	Stock Thk.	Material and Finish	Dim. W	Part Number
	AWG	mm ²					
A	20-16	0.6-1.4	.090-.120 [2.29-3.05]	.016 [0.41]	Brass	.208 [5.28]	42531-1
					Tin Plated Brass	.208 [5.28]	42531-2
B	20-16	0.6-1.4	.100-.140 [2.54-3.56]	.016 [0.41]	Brass	.208 [5.28]	42700-1
					Brass	.208 [5.28]	60798-2
			.090-.125 [2.29-3.18]	.016 [0.41]	Tin Plated Brass	.208 [5.28]	60798-4
					Tin Ni Plated Brass	.208 [5.28]	60799-4 ¹
A	18-14	0.9-2	.120-.175 [3.05-4.45]	.016 [0.41]	Brass	.208 [5.28]	61412-1
					Tin Plated Brass	.208 [5.28]	61412-2
C	14-10	2-6	—	.016 [0.41]	Brass	.208 [5.28]	42868-1
					Tin Plated Brass	.208 [5.28]	42868-2
					Brass	.208 [5.28]	42891-1 ¹
					Brass	.208 [5.28]	42891-2 ¹

¹No indent.

Tab Receptacles



Type	Wire Range		Insul. Dia. Range	Stock Thk.	Material and Finish	Fits Tab	Dim. W	Part Number
	AWG	mm ²						
B	22-18	0.3-0.9	.050-.085 [1.27-2.16]	.010 [0.25]	Pre Tin Brass	.010 x .093 [0.25 x 2.36]	.120 [3.05]	63391-1 ¹
B	22-18	0.3-0.9	.080-.120 [2.03-3.05]	.010 [0.25]	Pre Tin Brass	.032 x .103 [0.81 x 2.62]	.126 [3.2]	60252-1 ²

¹Compliant base.²Dimple.

For Complete Product Information, Order Catalog 82227

Fiber Optic Products

Table of Contents

Section Nine: Fiber Optics

443-460

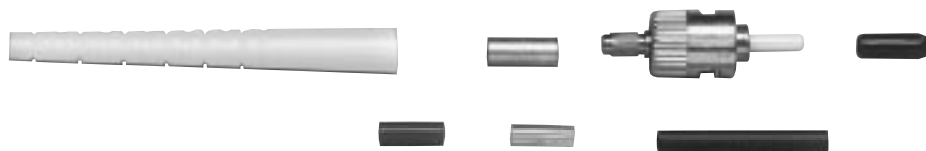
Singlemode Fiber Optic Components	444-447
Singlemode Cable Assemblies	448
Multimode Fiber Optic Components	449-452
Multimode Cable Assemblies and Bracket Assemblies	453-454
DATA LAN Cables and Accessories	455-456
Fiber Optic Management System	457-460

For Complete Product Information, Order Catalog 1242190

Singlemode Fiber Optic Components

ST-Style Connectors
(Ceramic)

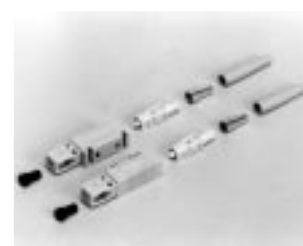
Fiber Optic Products (Continued)



Hole Size (μm)	Boot Type & Color	Part Numbers	
		Epoxy Type	Epoxyless Type
126	Long Strain Relief	—	504000-1
126	Bend Limiting/Yel.	502579-2	—
126	Short/Yel.	502580-2	—
127	Bend Limiting/Yel.	502579-3	—
127	Short/Yel.	502580-3	—

SC Connectors
(3.0mm Cable Dia.)

Simplex Connector



Duplex Connector

Hole Size (μm)	Part Numbers	
	Simplex	Duplex
125	504646-1	—
126	504646-2	504655-1

SC Adapters



SC Simplex Adapter — Plastic



Flange-less SC Simplex Adapter — Plastic



SC Duplex Adapter — Plastic

Alignment Sleeve	Housing Color	Part Numbers		
		Simplex Single Pkg.	Duplex Single Pkg.	50 Pc. Bulk
Ceramic	Beige	—	2-502776-2	—
Metal	Black	502632-7	502776-7	—
Metal	Blue	502632-8	502776-8	—
Metal	Beige	502632-9	502776-9	—
Ceramic	Black	1-502632-0	1-502776-0	—
Ceramic	Blue	1-502632-1	1-502776-1	1-502776-7
Ceramic	Beige	1-502632-2	1-502776-2	1-502776-8
Ceramic/APC SM	Green	2-106901-6	2-502776-3	—
Metal	Black	504632-1 ¹	—	—

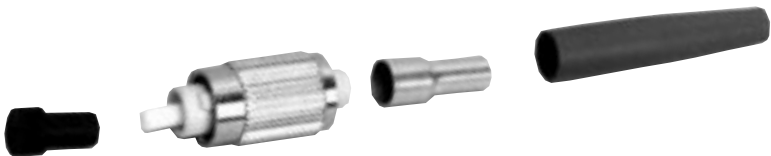
¹Flange-less type

For Complete Product Information, Order Catalog 1242190

Singlemode Fiber Optic
Components

FC Connectors
(3.0mm Cable Dia.)

Fiber Optic Products (Continued)



Hole Size (μ m)	Part Numbers	
	One Piece Connectors	Multi-Piece Turnable Connectors
125	504649-1	—
126	504649-2	504648-2

FC Adapters
(Single Package)



FC Square Flange Adapter



FC 8mm/9mm Dia. Round



FC 8mm Dia. Round (Double D)

Alignment Sleeve	Part Numbers		
	FC Square Flange	FC 8mm/9mm Dia. Round	FC 8mm Dia. Round (Double D)
Metal	501506-2	504407-1	504013-1
Ceramic	501506-1	504407-3	—

D4 Connectors
with White Strain Relief
(125mm Hole Dia.)



Part No. 504770-2

For Complete Product Information, Order Catalog 1242190

Singlemode Fiber Optic Components

Hybrid Adapters — SC to ST (Single Package)

Fiber Optic Products (Continued)



SC to ST Simplex Adapter —
Plastic



SC to ST Simplex Adapter —
Metal



SC to ST Duplex Adapter —
Plastic

Alignment Sleeve	Housing Color	Part Numbers		
		SC to ST Simplex Plastic	SC to ST Simplex Metal	SC to ST Duplex Plastic
Metal	Black	502780-1	—	503137-1
Metal	Blue	502780-2	—	503137-2
Metal	Beige	502780-3	—	503137-3
Ceramic	Black	502780-4	—	503137-4
Ceramic	Blue	502780-5	—	503137-5
Ceramic	Beige	502780-6	—	503137-6
Metal	Electroless Nickel	—	503638-1	—
Ceramic	Electroless Nickel	—	503638-2	—

Hybrid Adapters — SC to FC (Single Package)



SC to FC Simplex Adapter —
Plastic



SC to FC Simplex Adapter —
Metal



FC to ST Simplex Adapter —
Metal



SC to FC Duplex Adapter —
Plastic

Alignment Sleeve	Housing Color	Part Numbers			
		SC to FC Simplex Plastic	SC to FC Simplex Metal	FC to ST Simplex Metal	SC to FC Duplex Plastic
Metal	Black	502781-1	—	—	503135-1
Ceramic	Black	502781-4	—	—	503135-4
Ceramic	Blue	502781-5	—	—	—
Metal	Electroless Nickel	—	503480-1	503640-1	—
Ceramic	Electroless Nickel	—	503480-2	503640-2	—

For Complete Product Information, Order Catalog 1242190

Singlemode Fiber Optic Components

Fiber Optic Products (Continued)

CORELINK Splices and Tools



Part No. 503577-1
(12 pack — Includes 2 Keys)



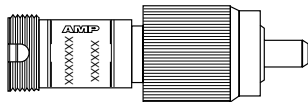
AMP CORELINK Splice
Workstation Part No. 503605-1



Universal Fiber Optic
Cleaving Tool Part No. 503924-1

Polishing Bushings

Connector	Cable Jacket Diameter (mm)	Part Numbers	
		Polishing Bushing	Curing Sleeves/Pieces
ST Style — Polymer Composite	3.0	503304-2 (Beige Polymer)	—
AMP SC and Next Gen. AMP SC	3.0	502631-1 (Black Polymer)	502656-1 (1 pc.)

FC Attenuators, Build Out Style
Fixed Value

Dual Window Attenuators

Part Numbers	Bandpass 1310/1550nm ±25nm	
	FC/PC R ≤ -45 dB	FC/UPC R ≤ -55 dB
2	209929-2	—
3	209929-3	—
5	—	209948-5
10	—	1-209948-0
15	—	1-209948-5

R=Reflectance

D4 Attenuator, Build Out Style
Fixed Value

Dual Window Attenuators

Part Numbers	Bandpass 1310/1550nm ±25nm	
	D4/PC R ≤ -45 dB	
5	209570-5	
10	1-209570-0	

R=Reflectance

SC Attenuators, Build Out Style
Fixed Value

Bellcore Bandpass Attenuators

Part Numbers	Bandpass 1260-1360nm & 1430-1580nm
	SC/PC R ≤ -45 dB
10	1-107829-0

R=Reflectance

For Complete Product Information, Order Catalogs 889144 and 124001

Singlemode Cable Assemblies

FC-FC Style



FC/UPC to FC/UPC Cable Assembly
Part No. 492014-3
3m Length Stacked Assembly

Fiber Optic Products (Continued)

SC-SC Style



SC/APC Connectors



SC/UPC to SC/UPC Cable Assembly

Description	Lengths (m)				
	1	3	5	10	15
Stocked Assemblies:					
Simplex SC/APC to SC/APC	—	233887-3	—	—	—
Simplex SC/UPC to SC/UPC	492015-1	492015-3	492015-4	492015-5	—
Other SC-SC Assemblies:					
SC Duplex to SC Duplex	492019-1	492019-3	492019-4	492019-5	492019-6

Hybrid FC/SC Style and Other Cable Assemblies



FC/UPC to SC/UPC Cable Assembly



ST/UPC Cable Assembly



D4/SPC Cable Assembly

Description	Lengths (m)	
	1	3
Stocked Assemblies (FC/SC Hybrid)		
Simplex FC/UPC to SC/UPC	492017-1	—
Other Simplex Assemblies		
Simplex SC/ST	492016-1	—
Simplex FC/ST	—	492018-3
Simplex ST/ST	502796-1	502796-3
Other Duplex Assemblies		
SC Duplex/ST Style	—	492020-3
ST/ST Style	—	503162-3

For Complete Product Information, Order Catalog 889275

Multimode Fiber Optic Components

ST-Style Connectors — Epoxy Type

Fiber Optic Products (Continued)



Fiber Size (µm)	Cable Dia. Max.	Boot Type & Color	Part Numbers	
			Ceramic	Stainless Steel
125	3.0	Short/Black	503569-2 ¹	—
125	3.0	Short/Black	503571-1 ¹	—
125	3.0	Short/Black/Bare Buffer	503571-3 ¹	—
140	3.0	Bend Limiting/BL Bare Buffer	501380-6 ²	—
125	3.0	Bulk Pk/No Boot	492458-3 ²	5-504008-4
125	3.0	Short/BL/Bare Buffer	492458-1 ²	—
125	3.0	Short/Black	1-501380-6 ²	—
125	0.9	Bare Buffer/Black	2-501380-1 ²	—
125	3.0	Bend Limiting/Black	501380-1 ²	504008-3
140	3.0	Bend Limiting/Black	—	504008-7

¹ Zirconia ceramic ferrule, polymer body, polymer coupling nut.

² Zirconia ceramic ferrule, nickel plated brass body, nickel plated die cast coupling nut.

Epoxyless Type

ST-Style Connectors — Epoxyless Type

Fiber Size (µm)	Ferrule Type	Body Type	Coupling Nut Type	Part Number
125	Polymer	Polymer	Polymer	503453-1
125	Stainless Steel	Aluminum	Die Cast Zinc	504034-1
125	Ceramic	Aluminum	Die Cast Zinc	504001-1

ST-Style Receptacles

Material

Zirconia Ceramic

Part No. 502750-1
(Single Package)



For Complete Product Information, Order Catalogs 889144 and 1242191

Multimode Fiber Optic Components

Strain Relief Bulk Packages and Built up Tubes

Fiber Optic Products (Continued)



Bend Limiting Boot



Short Boot



Right Angle Boot

Strain Relief Bulk packages (100 pcs./package)

Color	Bend Limiting Boot	Short Boot	Right Angle	Bare Buffer
Black	502128-9	501457-8	502667-6	503628-2
Red	1-502128-1	1-501457-0	—	—
Blue	—	1-501457-2	502667-7	503628-9

Build up tubes

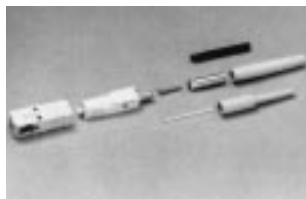
Size	Pcs Per Pack	Part Number
.900 mm to 3.0 mm	100	502179-9



Bare Buffer Boot

SC Connectors

LightCrimp SC Epoxyless Connector

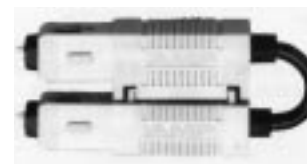


Part No. 503692-1
Components shown.

Simplex and Duplex Connectors



SC Low Loss Loopback Connector



Part No. 503141-1, 62.5/125 μ m
Part No. 503141-2, 50/125 μ m

Description	Part Number			
	Cable Diameter			AMP Light Crimp Epoxyless
	3.0mm	2.5mm	2.0mm	
Simplex Connector	503948-1	—	504931-1	503692-1
Duplex Connector	504657-1	504927-1	—	—

SC Adapters



SC Simplex Adapter — Plastic



SC Duplex Adapter — Plastic



SC to ST Duplex Adapter — Plastic

Type	Alignment Sleeve	Housing Color	Simplex Single Pkg	Part Number	
				Simplex Single Pkg.	Duplex
SC Plastic	Metal	Beige	504614-1	504640-1	504640-2
SC to ST Plastic Hybrid	Metal	Beige	—	504663-2	—

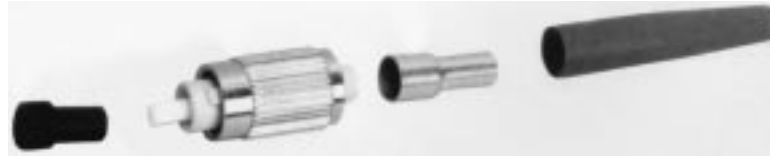
For Complete Product Information, Order Catalogs 889144, 889003 and 1242191

Multimode Fiber Optic Components

FC Type Connectors

One-Piece 125 μ m
Cable Diameter 3.0 mm
Part No. 504920-1

Fiber Optic Products (Continued)



ESCON Connectors and Receptacles



Connector Kits



ESCON Curing Fixture Kit



ESCON Receptacles

ESCON Connectors & Receptacles

Product	Description	Part Numbers	
		Single Pkg	50 pc. Bulk
Connectors	ESCON	492181-1	492181-2
Curing Fixture Kit	w/ Polishing Bushing	492236-2	—
Receptacles	ESCOM/ESCON Adapter	502825-2	—
	ESCON/ST-Style Adapter	502826-2	—

FSD (FDDI) Connector Components — FSD



Diameter (µm)	Part Number				Replacement Ferrules ¹
	Cable Type				
	DUALAN (Round)		Duty Dual Zip		
	Single Packed	Bulk Packed	Single Packed	Bulk Packed	
Ceramic Composite					
125	501780-1	501780-3 ²	502015-1	502015-3 ²	501779-1
Polymer Composite					
125	—	—	—	503347-7 ²	—

Replacement Keys (A, B, M) 504993-1

Replacement Keys (A, B, M) 100 pc. each 504993-2

¹Part number is for a single ferrule.

²Bulk packed, 250 per package

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 1242191

Multimode Fiber Optic Components

FSD (FDDI) Connector Components —

Fixed Key FSD Receptacles and Adapters

Fiber Optic Products (Continued)



FSD to ST-Style Bulkhead Adapter

Housing Material	Threaded Insert Size	Part Numbers		
		Keying Type		
		A	B	S
Plastic	4-40	501798-1	501798-2	501798-4

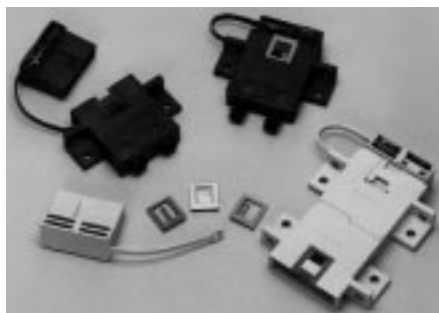


FSD to FSD Receptacle

Style	Threaded Insert Size	Part Numbers	
		Keying Type	
		A to B	M to S
With Mounting Ears	4-40	501926-1	501926-2
	M3	501931-1	501931-1
Without Mounting Ears	—	501805-1	501805-2

FSD (FDDI) Connector Components —

Field Keyable FSD Receptacles and Adapters



Multimode Receptacles

Description	Sleeve Material	
	Metal	Ceramic
FSD to FSD	502806-2	502806-4
FSD to ST-Style	502808-2	—

FSMA Products — Connectors



Ferrule Material	Connector Body Material	Fiber Diameter (μm)	Nominal Jacket O.D.			
			3.1mm		4.3mm	5.3mm
			905	906	905	905
Stainless Steel	Nickel-Plated Brass	125	504566-1	504014-1	504567-1	504568-1
		140	504566-2	1-504014-0	504567-2	—
		231	504566-7	—	—	—
		1000	3-504566-0	—	—	—

CORELINK Splices
(12 pack—Includes 2 keys)

Part No. 503901-1

For Reference see page 447 in Singlemode Section.

Lensed Wavelength Division Multiplexer

Fiber	.5m Cable Length	Connector	Part Number (MUX or DEMUX) 1310/1550nm
62.5/125 Multimode	3mm	ST Style	99105-3



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 1242191, 889144 and 124001

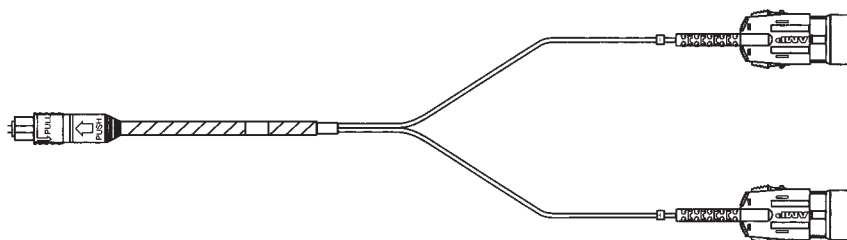
Multimode Cable Assemblies and Bracket Assemblies

MPO to ESCON Direct Attach Harness

6 Channel (12 fiber), AB/AB Straight Through

62.5/125 Multimode

Part Number 492550-4

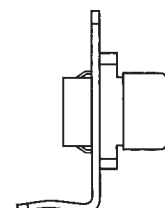
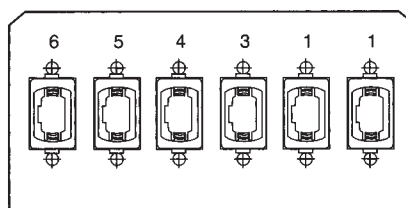


MPO Coupler Mounting Bracket Assembly

6 Port (72 fiber)

Color — Black

Part Number 504621-1

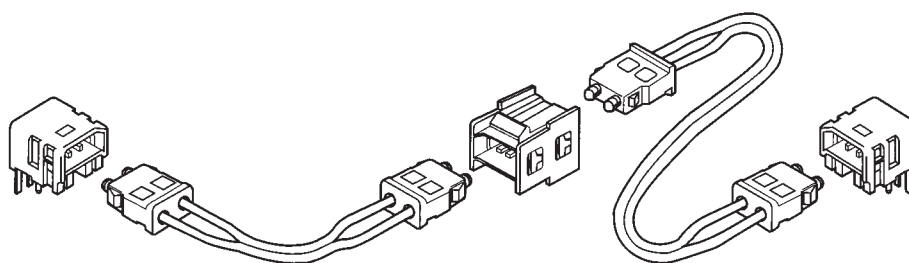


F07 Opto-Electronic Transceiver

Part Number 492104-1



Dry Non-Polish (DNP) Plastic Fiber System Mini-DNP Duplex Components



Duplex Active Devices: Specifications

Emitter	Detector	Emitter	Detector	ID Mark	Part Number
GaAlAs LED ($\lambda_p = 660\text{nm}$)	Silicon photo transistors	$P_f = 18\text{dBm min.}^2$ Optical Power	80A/W min.^1 Optimum Power	1	174135-1

¹ $P_f = 20\mu\text{W}$ $\lambda_p = 660\text{nm}$ (Fiber: $750\mu\text{m}$. NA = 0.5. $\ell = 0.5\text{m}$)

²If = 20mA (Fiber: $750\mu\text{m}$. NA = 0.5 $\ell = 0.5\text{m}$)

DNP Connectors

Single Position
Plug Assembly
Part No. 228087-1



Dual Position
Plug Assembly
Part No. 228088-1

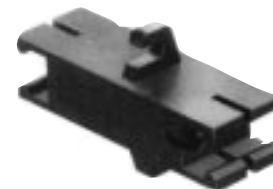


For Complete Product Information, Order Catalogs 889414 and 889058

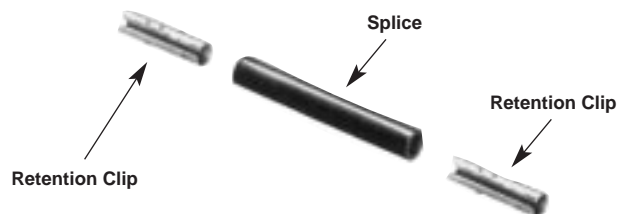
Multimode Cable Assemblies
and Bracket Assemblies

Bulkhead Receptacles

Fiber Optic Products (Continued)

Single Position
Part No. 228042-1Dual Position
Part No. 228045-1

DNP Splice

Joins two 1000 μ m (2.2mm
cable diameter) plastic fibers
without need for connectors

Retention Clip — Part No. 228046-1

DNP Active
Device MountsAccepts packaged active
devices and connects to sim-
plex connectors

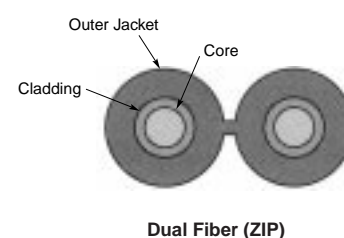
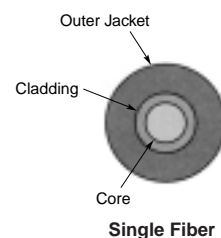
Board or panel mount



For Active Device Type	Part Number
Honeywell Low-Cost Plastic Sweetspot ¹ /TO-18	228043-1

¹Trademark of Honeywell Inc.**Note: Part No. 501084-1** Device Ring
adapts to TO-46 and TO-18 devices.

Plastic Optical Fiber

Industrial equipment
Optical sensing
Low cost fiber links
Internal equipment links
Industrial controls980/1000 μ m

Cable Specifications

Description	Fiber Dia. (mm)	Attenuation Typical 650 nm (dB/m)	NA \pm .03	Cable Dim. Nom. (mm)	Cable Weight (kg/km)	Operating Temp. (°C)	Tensile Break Strength (kg)	Bend Radius, Min. @ Install. (cm)	Part Number
Simplex	1.0	0.14	0.51	2.2	2	-55/+85	8	2.5	501232-1
Dual	1.0	0.14	0.51	2.2 x 4.4	4	-55/+85	14	2.5	501336-1

OptiDuct Plug

Sealing and termination plugs keep
innerduct clean, dry, air tight, and
ready for future use.

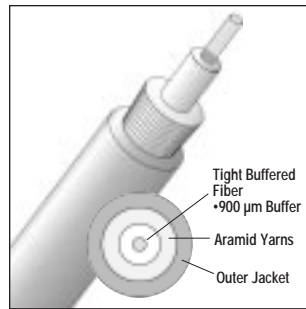
Liner Size	Coupling Part Number
1.25"	599066-1

For Complete Product Information, Order Catalogs 889057 and 889058

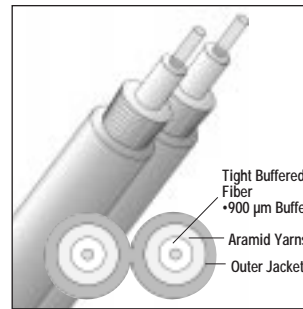
DATA LAN Cables and Assemblies

Interconnect

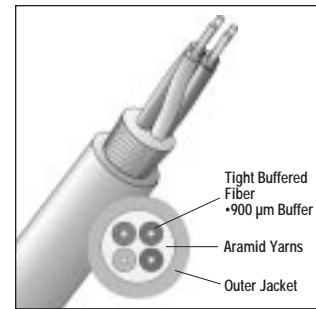
Fiber Optic Products (Continued)



Simplex Cable



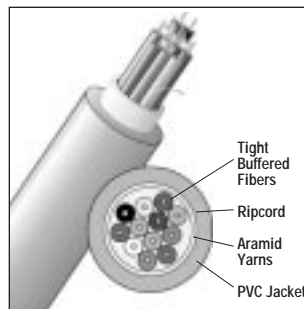
Zipcord Cable



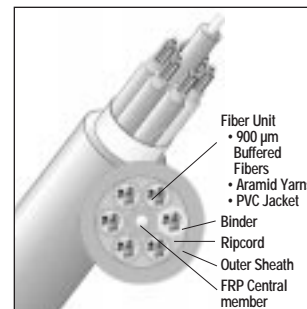
4 Fiber Cable

Cable Type	Part Number		Diameter mm (in.)	Weight kg/km (lb/kft)	Tensile Load N (lb)		Bending Radius cm (in.)	
	50/125	62.5/125			Installation	Long Term	Installation	Long Term
RISER								
Simplex	—	503016-1	3.0 (0.12)	9 (6.0)	500 (113)	240 (54)	4.5 (1.8)	3.0 (1.2)
Zipcord	—	502983-1	3.0 x 6.1 (0.12 x 0.24)	19 (12.7)	1000 (226)	480 (108)	4.5 (1.8)	3.0 (1.2)
DUALAN	—	502984-1	4.8 (0.19)	18 (12.1)	1400 (316)	600 (135)	7.2 (2.8)	4.8 (1.9)
4 Fiber 4.8	—	502985-1	4.8 (0.19)	19 (12.7)	1400 (316)	600 (135)	7.2 (2.8)	4.8 (1.9)
PLENUM								
Simplex	—	—	3.0 (0.12)	9 (6.0)	500 (113)	240 (54)	4.5 (1.8)	3.0 (1.2)
Zipcord	502986-2	502986-1	3.0 x 6.1 (0.12 x 0.24)	20 (13.4)	1000 (226)	480 (108)	4.5 (1.8)	3.0 (1.2)
DUALAN	—	502987-1	4.8 (0.19)	20 (13.4)	1400 (316)	600 (135)	7.2 (2.8)	4.8 (1.9)
4 Fiber 4.8	—	502988-1	4.8 (0.19)	22 (14.8)	1400 (316)	600 (135)	7.2 (2.8)	4.8 (1.9)

Distribution Style Cables



Multi-Unit Distribution Style
12 Fiber Cables



Multi-Unit Distribution Style
Cables 24-72 Fibers

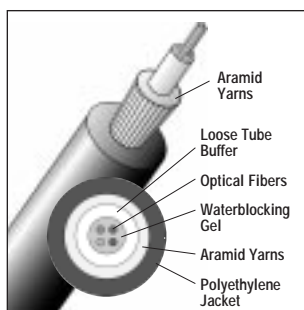
Cable Type	Part Number	Fiber Ct. (fibers/unit)	Diameter mm (in.)	Weight kg/km (lb/kft)	Tensile Load N (lb)		Bending Radius cm (in.)	
					Installation	Long Term	Installation	Long Term
Distribution Style Riser	502989-1	6 (6)	6.5 (0.24)	38 (26)	1514 (341)	757 (171)	9.8 (3.9)	6.5 (2.6)
	502990-1	8 (8)	6.8 (0.27)	41 (28)	1514 (341)	757 (171)	10.2 (5.1)	6.8 (2.8)
Distribution Style Plenum	502993-1	6 (6)	4.7 (0.19)	18 (12)	1514 (341)	757 (171)	7.0 (2.8)	4.7 (1.9)
Distribution Style Multiunit Riser	502992-1	24 (6)	15.1 (0.55)	190 (130)	2500 (564)	1100 (147)	24.2 (9.5)	15.1 (5.9)
Distribution Style Multiunit Plenum	503209-1	24 (6)	13.8 (0.54)	173 (116)	2500 (564)	1100 (248)	22.1 (8.7)	13.8 (5.4)
	503210-1	48 (12)	17.4 (0.69)	236 (158)	5000 (1128)	2500 (564)	27.8 (10.9)	17.4 (6.9)

For Complete Product Information, Order Catalog 1242002

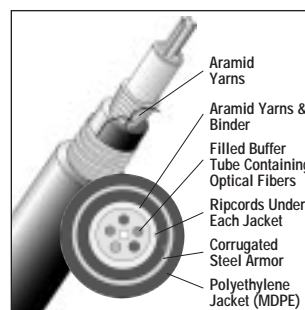
DATA LAN Cables and Assemblies

Outdoor Cables 4-12 Fibers and 24-144 Fibers

Fiber Optic Products (Continued)



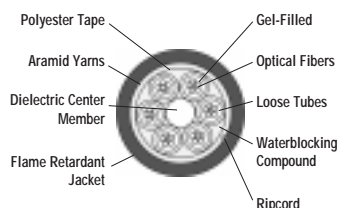
Outdoor Cables 4-12 Fibers
(Single Tube All Dielectric)



Outdoor Cables 4-12 Fibers
(Single Tube Armored)

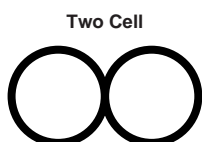
Cable Type	Part Number 62.5/125	Fiber Count	Diameter mm (in.)	Weight kg/km (lb/kft)	Tensile Load N (lb)		Bending Radius cm (in.)	
					Installation	Long Term	Installation	Long Term
Loose Tube All-Dielectric	769507-1	4	8.7 (0.34)	60 (40)	2700 (609)	890 (200)	17.4 (6.9)	8.7 (3.4)
	769509-1	6						
	769623-1	8						
	769510-1	12						
Single Tube Armored	295026-1	6	10.7 (0.57)	125 (120)	2700 (609)	890 (200)	10.7 (11.4)	21.4 (5.7)
	295028-1	12						
All-Dielectric	503028-1	24 (6)	11.8 (0.46)	112 (75)	2700 (609)	890 (200)	24 (9.5)	12 (4.8)

Indoor/Outdoor Cables

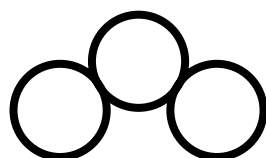


Cable Type	Part Number 62.5/125	Fiber Ct. (fibers/tube)	Diameter mm (in.)	Weight kg/km (lb/kft)	Tensile Load N (lb)		Bending Radius cm (in.)	
					Installation	Long Term	Installation	Long Term
Loose Tube All-Dielectric Riser	599080-1	12 (12)	14.0 (0.44)	150 (94)	2700 (609)	890 (200)	28 (8.8)	14.0 (4.4)
	769515-1	24 (6)						

OptiDuct Outside Plant Innerduct



Two Cell



Three Cell

SDR 13.5

Type	With Pull Tapes
3 cell 1 in.	599040-1
2 cell 1.25 in.	599043-1

Fiber Cable Assemblies



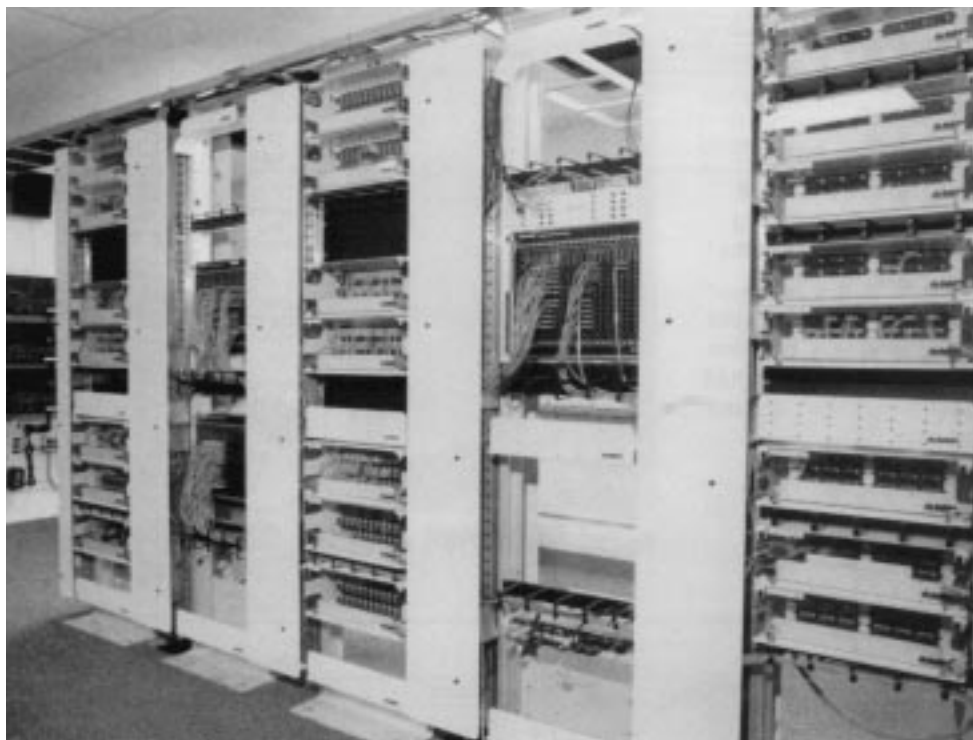
	Part Number	Description
Duplex ST-Style to ST-Style — Ceramic Ferrules	503995-1	1 meter
	503995-2	2 meter
	503995-3	3 meter
	503995-4	5 meter
	503995-5	10 meter
Duplex ST-Style to ST-Style — Polymer Ferrules	503994-1	1 meter
	503994-2	2 meter
	503994-3	3 meter
	503994-4	5 meter
	504971-1	1 meter
Duplex AMP SC to SC — Ceramic Ferrules Riser Rated (62.5/125nm)	504971-2	2 meter
	504971-3	3 meter
	504971-4	5 meter
	504971-5	10 meter
	504958-1	1 meter
Duplex AMP SC to ST-Style — Ceramic Ferrules	504958-2	2 meter
	504958-3	3 meter
	504958-4	5 meter
	504958-5	10 meter
	504969-2	2 meter
Duplex AMP SC to SC Style — Ceramic Ferrules 50/125 μm fiber	504969-3	3 meter
	504969-4	5 meter
	504969-5	10 meter

For Complete Product Information,
Order Catalog 1242002

Fiber Optic Management System

Rack Cable Management and Rack-Mount Cable Management

Fiber Optic Products (Continued)



Item	Description	Part Number
Standard Self-Supporting Equipment Rack Order Matrix	Clear Finish over Grained Surface	559260-1
	Black Baked Enamel Finish	559260-3
AMP Premises Rack Organizer System (AMP PRO)	Vertical Cable Management	559371-1
	Bottom/Middle Trough	559369-1
Horizontal Cable Management Troughs	Top Trough	559370-1
	Bottom/Middle Trough	559369-1
Horizontal Cable Management	Hangar	559366-1
	End Unit	559270-1
Deluxe Rack-Mount Cable Management Order Matrix	Rack to Rack Unit	559268-1
	Top	559197-2
Rack-Mount Horizontal Cable Trough	Bottom	559198-2

Fiber Optic Rack-Mount Enclosures

Patch Panel ATDU



24 Port Patch Panel ATDU

Unloaded ATDU
Part Number 503324-1
Fiber Count — 6 to 24
Rear Cable Management —
 Aluminum Rings

Loaded ATDU
(Pre-Assembled) with Receptacles
Part Number 559161-1
Fiber Count — 24 (MM ST-Style)

For Complete Product Information, Order Catalog 269000

Fiber Optic Management System

Rack-Mount Patch Panel Enclosure Classic Series

Fiber Optic Products (Continued)



12 Port



36 Port



72 Port

Loaded Enclosure (Pre-Assembled) with Receptacles

Fiber Count	Description	Part Number
12	MM ST-Style	503070-1

Unloaded Enclosures

Fiber Count	Finish	Part Number
6 to 12	Blue	502522-1
	Light Almond	502522-2
1 to 36	Light Almond	502523-2
6 to 72	Light Almond	502524-2
6 to 144	Light Almond	502525-2

SC Adapter Card

Multimode
Part Number 559255-1



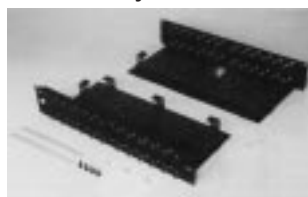
Loaded Rack-Mount Swing-Out Action Trays (SWAT) — Patch Panel

Assembled Part Number 503341-1



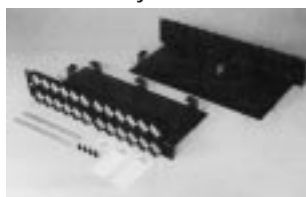
19" Rack-Mount Patch Panels

48 Port ST-Style



Part Number 559372-1

48 Port SC-Style



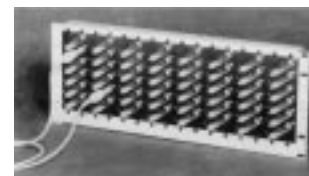
Part Number 559395-1

36 Port



Part Number 502521-2

48 FSD to 96 ST-Style



Part Number 502498-1

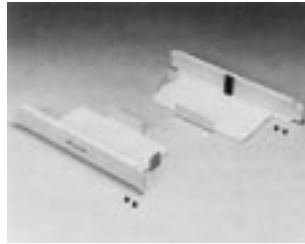
For Complete Product Information, Order Catalog 269000

Fiber Optic Management System

Fiber Modules

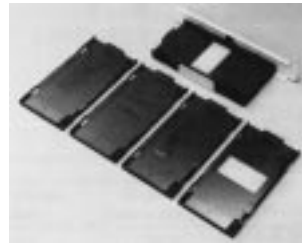
Fiber Optic Products (Continued)

Fiber Optic Splice Module



Part Number 559430-1

WIMS Splice Organizer Trays



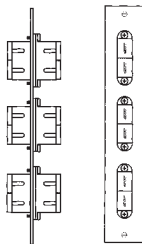
Fusion Splice Holder
Part Number 559433-2
CORELINK Splice Holder
Part Number 559433-4

Modular Jack to 110 Block Patch Panel Part Number 559521-1

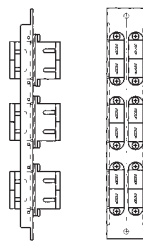


Adapter Plates

SC-Style Standard

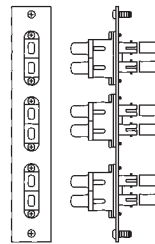


6 Ports
Part Number 503200-1

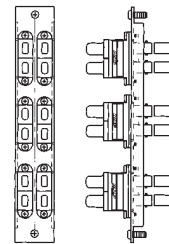


12 Ports
Part Number 503200-4

ST-Style to SC-Style Standard

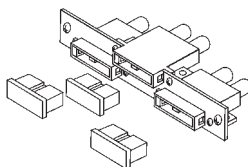


6 Ports
Part Number 503224-1

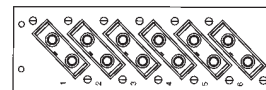


12 Ports
Part Number 503268-1

FSD FDDI

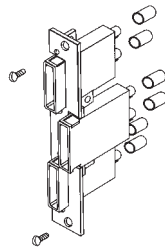


Part Number 502497-1
12 Ports, Key A
Part Number 502497-3
12 Ports, Key M
Part Number 502497-4
12 Ports, Key S



Part Number 502840-4
6 Ports

For Complete Product Information, Order Catalog 269000

Fiber Optic Management System**Adapter Plates**
(Continued)**Fiber Optic Products** (Continued)**RSD**

Part Number 503050-1

FC Type

Part Number 502512-3

Blank

Part Number 502512-6

RibbonMaster Splice Tray & Accessories

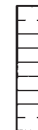
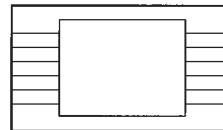
Part Number 559308-2

Application	In-line splicing configuration for ribbon fiber
Fiber capacity	12 Ribbon Fibers
Components Include:	Description
Quantity	
1	Black Anodized Tray
1	Clear, Polycarbonate, Certi-Clik Latching Cover
2	End Caps
4	Ribbon Fiber End Cap Covers



Part Number 559406-1

Application	Enables ribbon cable tray (559308) to be used with discrete fiber
Quantity included	4 End Caps to convert one (1) tray



Universal Device Holder Part Number 559299-1

For Complete Product Information, Order Catalog 269000

RF Connectors

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Connector Selection

RF Connectors (Continued)

Connector Types

BNC connectors offer easy engagement and disengagement using bayonet couplings and overlapping dielectrics. They are most useful for frequently coupled and uncoupled RF connections with frequencies below 4 GHz. BNC connectors find applications in flexible networks, instrumentation, and computer peripheral interconnections.

TNC connectors have an interface similar to BNC except for a threaded coupling nut. The tighter fit provided by this screw-on connection improves interface control allowing connectors to operate up to 11 GHz. TNC connectors are excellent for mobile units or aircraft where top-notch performance is required under vibration.

SMB connectors feature a snap coupling for fast connection. A self centering outer spring and overlapping dielectric allows easy snap-on and excellent performance even in moderate vibration. The SMB is smaller in size than the SMA and excellent where engineers are concerned about circuit miniaturization. Typical application is inter- or intra-board connection of RF or digital signals. Commercial 50 ohm versions operate to 4 GHz, and 75 ohm versions reach 2 GHz.

SMA threaded connectors are widely used in avionics, radar and microwave communications and instrumentation. Connectors operate to at least 12.4 GHz on flexible coax cables, and up to 26.5 GHz on semi-rigid coax cables. Crimp-on SMA connectors that operate to 26.5 GHz are available.

UHF connectors are relatively inexpensive screw-on products. They have large impedance discontinuities that limit their range to about 500 MHz. Miniature versions, however, offer 2 GHz bandwidth. These products are used extensively in commercial communications and instrument applications.

N threaded connectors have an air dielectric interface, are low cost and are available in 50 and 75 ohm impedance types. These connectors operate to 11 GHz and are commonly used in cable-based local-area networks (LAN's) medium power transmitters and test equipment.

Note: Other RF Connector families are available. For more information contact AMP Incorporated at 1-800-522-6752.

Cable-to-Connector Selection Guide

RF Coaxial Cable Groups

RF Connectors (Continued)

In the product section of this catalog the connector selection charts are arranged by cable range groups, indicated by a Selection Code. Various types and styles of connectors are listed for a particular code, showing all the options for that cable range.

The following Cable-to-Connector Selection Guide has been organized for the convenience of a customer trying to find connectors that match a specific coaxial cable. This guide will assist in identifying the selection code when the RG type or manufacturers' part number is known.

Connector Cable Range Selection Code	Dielectric Core Size		Center Conductor O.D.		Nominal Impedance (ohms)	Number of Shields	RG Cable Numbers	Nom. Jacket O.D.		Cable Manufacturer
	inch	[mm]	inch	[mm]				inch	[mm]	
A	.034/.036	0.86/0.91	.012	0.3	50	1	178, 178A, 178B	.072	1.83	—
	.034	0.86	.012	0.3	50	1	196, 196A	.072	1.83	—
B	.060	1.52	.019	0.51	50	1	174, 174A	.100	2.54	—
	.060	1.52	.020	0.51	50	1	316, 188, 188A	.102/.105	2.60/2.67	—
B1	.057/.063	1.4/1.6	.012	0.3	75	1	179, 179A, 179B	.100	2.54	—
	.057	1.45	.012	0.3	70	1	161	.082	2.08	—
	.060	1.52	.012	0.3	75	1	187, 187A	.105	2.67	—
	.058	1.47	.012	0.3	75	1	—	.097	2.46	Belden 9221
	.072	1.83	.011	0.28	—	1	—	.115	2.92	IBM 5353914, Brand Rex T-209A
B2	.060	1.52	.020	0.51	50	2	—	.114	2.90	RD 316, 188 Double Braid
B3	.078	1.98	.016	0.41	75	2	—	.123	3.12	AT&T 735A
B4	.063	1.60	.012	0.30	75	2	—	.121	3.07	AT&T KS 19224 L2, RD179
B5	.096	2.44	.030	0.76	50	1	122	.160	4.06	—
C	.102/.103	2.59/2.62	.012	0.3	95	1	180, 180A, 180B	.140	3.56	—
	.102	2.59	.012	0.3	95	1	195, 195A	.145	3.69	—
C1	.102	2.59	.037	0.94	50	1	—	.198	5.03	Belden 8219
	.102	2.59	.037	0.94	50	1	—	.185	4.70	Belden 9907
	.095	2.41	.037	0.94	50	1	—	.165	4.19	Belden 89907
	.101	2.57	.037	0.94	50	1	—	.184	4.67	Comm/Scope 3104
	.101	2.57	.037	0.94	50	1	—	.166	4.22	Comm/Scope 2104
C2	.100	2.54	.017	0.43	75	1	—	.150	3.81	Belden 8218
C3	.110	2.79	.025	0.64	—	1	58, 58A, 58B, 58C	.156	3.96	Raychem 7524A1312
D	.116	2.95	.032/.035	0.81/0.89	50	1	—	.195	4.96	—
D1	.116	2.95	.036/.039	0.92/0.99	50	1	141, 141A	.190	4.83	—
	.116	2.95	.039	0.99	50	1	303	.170	4.32	—
D2	.107	2.72	.032	0.81	50	1	—	.159	4.04	Belden 88240, Berk-Tek BTDC-58
	.116	2.95	.037	0.94	50	1	—	.174	4.42	Comm/Scope 2135
	.116	2.95	.035	0.89	50	2	223	.211	5.36	—
E	.116	2.95	.032/.035	0.81/0.89	50	2	55, 55A, 55B	.200	5.08	—
E1 ¹	.116	2.95	.036/.039	0.92/0.99	50	2	142, 142A, 142B, 400	.195	4.96	—
	.135	3.43	.025	0.64	73	1	124 (use RG-140)	.240	6.10	—
G	.146	3.71	.022	0.56	75	1	—	.220	5.59	Belden 9291, 9209
	.146	3.71	.025	0.64	75	1	140	.233	5.92	—
	.146	3.71	.025	0.64	93	1	210	.242	6.15	—
	.146	3.71	.024/.025	0.61/0.64	93	1	62, 62A, 62B	.242	6.15	—
	.146	3.71	.023/.025	0.59/0.64	75	1	59, 59A, 59B	.242	6.15	—
	.146	3.71	.025	0.64	93	1	—	.242	6.15	Belden 9269
G1	.142	3.61	.025	0.64	93	1	—	.200	5.08	Belden 89269
	.134	3.40	.023	0.58	75	1	—	.193	4.90	Belden 88241, Hi-Temp 62A, Times PL-62, Berk-Tek BTDC-59, BTDC-62
	.146	3.71	.025	0.64	75	1	302	.201	5.11	—

¹Can use D group connectors if not weatherproof.

Cable-to-Connector Selection Guide (Continued)

RF Connectors (Continued)

Connector Cable Range Selection Code	Dielectric Core Size		Center Conductor O.D.		Nominal Impedance (ohms)	Number of Shields	RG Cable Numbers	Nom. Jacket O.D.		Cable Manufacturer
	inch	[mm]	inch	[mm]				inch	[mm]	
G2	.146	3.71	.032	0.81	75	1	—	.215	5.46	Hi-Temp 59, Times PL-59, PLF-59 (20 AWG C.C.)
G3	.146	3.71	.025	0.64	75	2	Double Shield	.270	6.86	—
G4	.144	3.66	.032	0.81	75	1	—	.242	6.15	Belden 9104, 9112, 9240
	.146	3.71	.030	0.76	75	1	—	.242	6.15	Belden 9167, 9259, 9266
G5	.146	3.71	.032	0.81	75	1	—	.242	6.15	Times FM-59
	.146	3.71	.032	0.81	75	1	—	.236	6.00	Belden 9145
H	.146	3.71	.025	0.64	93	2	71, 71A, 71B	.245	6.22	—
J	.185	4.7	.059	1.5	50	2	304	.280	7.11	—
J1	.180	4.57	.040	1.02	75	1	—	.270	6.86	Belden 9248, 9114
K	.185	4.7	.028	0.71	75	2	6, 6A	.332	8.43	—
K2	.200	5.08	.031	0.79	75	2	—	.305	7.75	Belden 8281, 9141, 9231, 88281 Western Electric 724, 728, 3049
L	.255	6.48	.084	2.13	50	2	115A	.415	10.54	—
	.247	6.27	.085	2.16	50	2	—	.375	9.53	Belden 89880
	.247	6.27	.085	2.16	50	2	—	.405	10.28	Belden 9880
	.247	6.27	.085	2.16	50	2	—	.375	9.53	Comm/Scope 2280
	.247	6.27	.085	2.16	50	2	—	.405	10.28	Comm/Scope 3250
M	.285	7.24	.085/.089	2.16/2.26	50	1	8, 8A, 213	.405	10.28	—
M1	.285	7.24	.048	1.22	75	1	11, 11A	.405	10.28	—
M2	.285	7.24	.103	2.62	50	1	—	.403	10.23	Belden 9914
	.285	7.24	.102	2.59	50	1	—	.405	10.28	Times FM-8
M3	.285	7.24	.064	1.63	75	1	—	.405	10.28	Alpha 9847
	.285	7.24	.064	1.63	75	1	—	.405	10.28	Belden 8213, 9292
M4	.285	7.24	.093	2.36	50	2	225, 393	.430	10.92	—
M5	.285	7.24	.108	2.74	50	1	—	.403	10.23	Belden 8214
N	.280/.285	7.11/7.24	.085/.088	2.16/2.24	50	2	9, 9A, 9B, 214	.420/.425	10.67/10.79	—
O	.119	3.02	.036	0.91	50	Tube	402 Semi-Rigid/ .141 [3.58]	—	—	—
P	.066	1.68	.020	0.51	50	Tube	405 Semi-Rigid/ .141 [3.58]	—	—	—
R	.144	3.66	.032	0.81	75	2	—	.270	6.86	Comm/Scope F59 HEC-2
S	.152	3.87	.023	0.58	75	2	—	.265	6.74	Comm/Scope S59 HEC

BNC Connectors,
50 Ohm

RF Connectors (Continued)



Twist-On



"O" Crimp



Single Crimp



Dual Crimp



Hex Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B	174 188, 188A 316	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	2-221128-1	—	58436-3	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225395-7	220009-1	—	220026-1
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-227079-6	220009-5	318450-2	220217-3
		Dual Crimp	Tin Lead	Nickel	Polyethylene	Commercial	—	1-227079-4	220009-5	318450-2	220217-3
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	2-331350-4	220009-1	—	220026-1
		Single Crimp	Gold	Nickel	Polypropylene	Mil Type	—	225527-9	69245-2	—	—
B1	179, 179A 179B, 161 187, 187A Belden 9221	Single Crimp	Gold	Silver	Polypropylene	Mil Type	—	2-330058-1	69245-2	—	69422
		Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	2-221128-3	—	58436-3	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225395-8	220009-1	—	220026-1
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	2-227079-2	220009-5	318450-2	220217-3
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	2-331350-5	220009-1	—	220026-1
		Single Crimp	Gold	Silver	Polyethylene	Mil Type	—	2-329084-1	69245-1	—	69408
B3	RD 316, 188 Double Braid	Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329446-1	69245-1	—	69408
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	8-227079-2	69477-4	58539-1	—
C	Belden 9252 122	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	5-225395-7	69477-2	—	69669-2
C1	180, 180A 180B 195, 195A	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	2-221128-5	—	58436-3	—
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	2-331350-6	69477-2	—	69669-2
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329447-1	69246-1	—	69423
C2	Belden 8219	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	2-221128-7	—	58436-1 ³	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	6-227079-7 ⁴	220187-1	58435-1 ²	220217-1
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	6-227079-8 ⁵	220187-1	318452-2	220217-1
C3	Belden 8218	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	1-225395-0	69477-2	—	69669-2
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-227079-9	69477-4	58539-1	58376-1
		Dual Crimp	Tin Lead	Nickel	Polyethylene	Commercial	—	1-227079-7	69477-4	58539-1	58376-1
D	58, 58A 58B, 58C	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	Bulk Packaged	221128-1	—	58436-1 ³	—
		Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221128-0	—	58436-1 ³	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225395-1	69478-1	220189-3	69727
		Dual Crimp	Tin Lead	Nickel	Polyethylene	Commercial	—	227079-1	220187-1	220189-1	220217-1
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	227079-5	220187-1	58435-1 ²	220217-1
		Dual Crimp	Silver	Nickel	Polyethylene	Commercial	—	227079-9	220187-1	58435-1 ²	220217-1
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	16B0004	2-331350-1	69478-1	220189-3	69727
		Single Crimp	Gold	Silver	Polypropylene	Mil Type	—	2-329082-1	69140-1	—	69223-1
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329444-1	69140-1	—	69223-1
		"O" Crimp	Gold	Nickel	—	Commercial	—	1-414582-3	—	58435-1	—
—	58	"O" Crimp	Silver	Nickel	—	Commercial	—	414582-8	—	58435-1	—
		Hex Crimp	Gold	Nickel	—	Commercial	—	414586-1	—	58436-1	—
		Hex Crimp	Silver	Nickel	—	Commercial	—	414586-5	—	58436-1	—
		Twist-On	Gold	Nickel	—	Commercial	—	414580-2	—	—	—
		Twist-On	Gold	Nickel	—	Commercial	—	414580-3	—	—	—
—	Plenum 59/62, Belden 88241, 89269, Berk Tek BTDC-59, BTDC-62	"O" Crimp	Silver	Nickel	—	Commercial	—	1-414582-2	—	220189-2	—
		Twist-On	Gold	Nickel	—	Commercial	—	414580-5	—	—	—

¹Refer to pages 463-464 for code specifications.²Order AMP PRO-CRIMPER Coaxial "O" Crimp Hand Tool assembly 58433-1, which includes dies 58435-1.³Order AMP PRO-CRIMPER Coaxial Hex Crimp Hand Tool assembly 58433-2, which includes dies 58436-1.⁴For use with Belden 9907, Comm/Scope 3104, Belden 8219 only.⁵For use with Belden 89907, Comm/Scope 2104 only.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

BNC Connectors, 50 Ohm (Continued)

Plugs, Crimp (Continued)



Twist-On



"O" Crimp



Single Crimp



Dual Crimp



Hex Crimp

RF Connectors (Continued)

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
D2	Belden 88240, Berk-Tek BTDC-58, Comm/ Scope 2135	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221128-0	—	58436-1 ³	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	4-227079-3	220187-1	58435-1 ²	220217-1
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	4-225395-2	69478-1	220189-3	69727
E	223 55, 55A, 55B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225395-3	69478-1	220189-3	69727
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	227079-6	220187-1	58435-1 ²	220217-1
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329444-2	69140-2	—	69424
E1	142, 142A, 142B, 400	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225395-6	69478-1	220189-3	69727
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	6-227079-1	220187-1	58435-1 ²	220217-1
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	16B0007	2-331350-9	69478-1	220189-3	69727
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-330358-2	69331-1	—	69429-1
		Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221128-1	—	58436-1 ³	—
G	124, 140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225395-2	69477-1	58537-1	—
		Dual Crimp	Tin Lead	Nickel	Polyethylene	Commercial	—	227079-3	220187-2	220189-2	220217-2
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	227079-7	220187-2	58435-1 ²	220217-2
		Dual Crimp	Silver	Nickel	Polyethylene	Commercial	—	1-227079-1	220187-2	58435-1 ²	220217-2
		Single Crimp	Gold	Silver	Polypropylene	Mil Type	—	2-329083-1	69141-1	—	—
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329445-1	69141-1	—	—
G1	302, Belden 88241, 89269 Hi-Temp 62A Times PL62, Berk-Tek, BTDC- 59, BTDC-62	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	4-225395-1	69477-1	58537-1	69669-1
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	4-227079-9	220187-2	58435-1 ²	220217-2
G2	Hi-Temp 59 Times PL59, PLF59 (20 AWG C.C.)	Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	5-227079-3	—	58537-1	—
G4	Belden 9104, 9240 9112, 9167, 9259, 9266 Times FM-59	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221128-7	—	58436-1 ³	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	2-225395-0	69477-1	58537-1	69669-1
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-227079-3	220187-2	58537-1	—
J1	Belden 9248, 9114	Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	3-227079-0	220247-1	58539-1	—
K2	Belden 8281, 9141, 9231 Western Electric 724, 728, 3049	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221128-2	—	58436-2	—
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	4-331350-0	220043-1	58538-1	220088-1
M3	Alpha 9847 Belden 8213, 9292	Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	225886-5	220015-1	—	—

¹Refer to pages 463-464 for code specifications.

²Order AMP PRO-CRIMPER Coaxial "O" Crimp Hand Tool assembly 58433-1, which includes dies 58435-1.

³Order AMP PRO-CRIMPER Coaxial Hex Crimp Hand Tool assembly 58433-2, which includes dies 58436-1.

⁴For use with Belden 9907, Comm/Scope 3104, Belden 8219 only.

⁵For use with Belden 89907, Comm/Scope 2104 only.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

**BNC Connectors,
50 Ohm** (Continued)**Plugs,
Field Serviceable**

Commercial



Push-On

RF Connectors (Continued)

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.
D	58, 58A, 58B, 58C	Solder Clamp	Gold	Nickel	TEFLON	Push-On	—	222728-1
D, D1 E, E1	58, 58A, 58B, 58C, 141, 141A, 303, 223, 55, 55A, 55B, 142, 142A, 142B, 400	Solder Clamp	Gold	Nickel	TEFLON	Commercial	Category A	1-221265-0
G, G1 H	124, 140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269, 89269, 88241, Hi-Temp 62A, Times PL-62, Berk-Tek BTDC-59, BTDC-62, 302, 71, 71A, 71B	Solder Clamp	Gold	Nickel	TEFLON	Commercial	Category A	1-221265-1

¹Refer to pages 463-464 for code specifications.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.**Plugs,
Twist-On****Related Product Data**

Twist-On plugs must be used with cable that has a solid conductor. These plugs are not recommended for applications where the cable frequently moves or flexes.



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.
D	58, 58B	Twist-On	Gold	Nickel	Polymethyl- pentene	Commercial	—	414265-7
G	59, 59A, 59B	Twist-On	Gold	Nickel	Polymethyl- pentene	Commercial	—	414265-3

¹Refer to pages 463-464 for code specifications.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

BNC Connectors, 50 Ohm (Continued)

Right-Angle Plugs, Crimp

RF Connectors (Continued)



Dual Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B	174, 188, 188A, 316	Hex Crimp	Gold	Nickel	Polymethyl-pentene	Commercial	—	413959-3	—	58436-3	—
C2	Belden 9907, 89907, 8219, Comm/Scope 2104, 3104	Hex Crimp	Gold	Nickel	Polymethyl-pentene	Commercial	—	413959-6	—	58436-1	—
D	58, 58A, 58B, 58C	Hex Crimp	Gold	Nickel	Polymethyl-pentene	Commercial	—	413959-1	—	58436-1	—
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	225973-1	69478-1	220189-3	69727
E	55, 55A, 55B, 223	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225974-1	69478-1	220189-3	69727
			Gold	Nickel	TEFLON	Mil Type	—	225974-2	69478-1	220189-3	69727
E1	142, 142A, 142B, 400	Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	225973-4	69478-1	220189-3	69727
G	124, 140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225974-5	69477-1	58537-1	69669-1

¹Refer to pages 463-464 for code specifications.

Jacks, Crimp



Single Crimp



Dual Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B	174, 188, 188A, 316	Hex Crimp	Gold	Nickel	Polymethyl-pentene	Commercial	—	413779-3	—	58436-3	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225396-7	220009-1	—	220026-1
		Dual Crimp	Gold	Nickel	Polypropylene	Commercial	—	228979-7	220009-5	—	220217-3
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-330062-1	69245-2	—	69422
B1	179, 179A, 179B, 161, 187, 187A, Belden 9221	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225396-8	220009-1	—	220026-1
C2	Belden 89907, 9907, 8219, Comm/Scope 3104, 2104	Hex Crimp	Gold	Nickel	Polymethyl-pentene	Commercial	—	413779-6	—	58436-1	—

¹Refer to pages 463-464 for code specifications.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

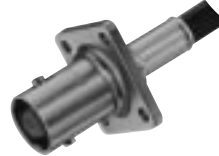
**BNC Connectors,
50 Ohm** (Continued)**Jacks, Crimp** (Continued)**RF Connectors** (Continued)

Single Crimp



Dual Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
D	58, 58A, 58B, 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225396-1	69478-1	220189-3	69727
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	17B0004	2-331351-1	69478-1	220189-3	69727
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329545-1	69140-1	—	69223-1
D, D2	58, 58A, 58B, 58C, Belden 88240, Berk-Tek BTDC-58, Comm/Scope 2135	Hex Crimp	Gold	Nickel	Polymethyl-pentene	Commercial	—	413779-1	—	58436-1	—
E	223, 55, 55A, 55B	Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329452-2	69140-2	—	69424
G	124, 140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291 9209, 9269	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	—	228979-6	220187-2	58435-1 ²	220217-2
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225396-2	69477-1	58537-1	69669-1

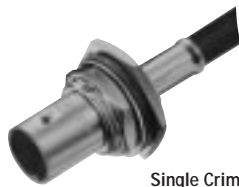
¹Refer to pages 463-464 for code specifications.²Order AMP PRO-CRIMPER Coaxial "O" Crimp Hand Tool assembly 58433-1, which includes dies 58435-1.**Panel Jacks,
Crimp**

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B	174, 188, 188A, 316	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225397-7	220009-1	—	220026-1

¹Refer to pages 463-464 for code specifications.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

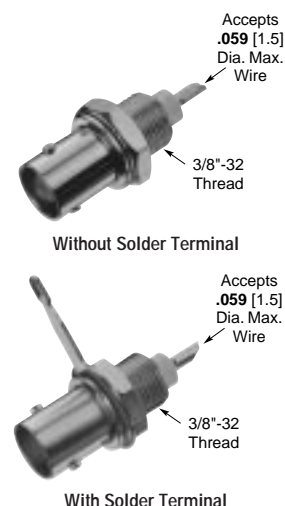
For Complete Product Information, Order Catalog 82074

**BNC Connectors,
50 Ohm (Continued)****Bulkhead Jacks,
Crimp****RF Connectors (Continued)**

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B	174, 188, 188A, 316	Hex Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	413771-3	—	58436-3	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225398-7	220009-1	—	220026-1
		Dual Crimp	Gold	Nickel	Polypropy- lene	Commercial	—	228980-7	220009-5	—	220217-3
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	1-331693-2	220009-1	—	220026-1
B1	179, 179A, 179B, 161, 187, 187A Belden 9221	Single Crimp	Gold	Silver	Polypropy- lene	Mil Type	—	2-330060-1	69245-2	—	69422
		Hex Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	413771-4	—	58436-3	—
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225398-8	220009-1	—	220026-1
		Single Crimp	Gold	Silver	Polypropy- lene	Mil Type	—	2-329092-1	69245-1	—	69408
B3	Times RD316	Dual Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329458-1	69245-1	—	69408
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	1-225398-5	69477-2	—	69669-2
D, D2	58, 58A, 58B, 58C, Belden 88240, Berk-Tek BTDC-58, Comm/Scope 2135	Hex Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	413771-1	—	58436-1	—
D	58, 58A 58B, 58C	Dual Crimp	Gold	Nickel	Polypropy- lene	Commercial	—	228980-5	220187-1	58435-1 ²	220217-1
		Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329456-1	69140-1	—	69223-1
E	223 55, 55A, 55B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225398-3	69478-1	220189-3	69727
E1	142, 142A 142B, 400	Single Crimp	Gold	Silver	TEFLON	Mil Type	—	2-329456-2	69331-1	—	69429-1
G	124, 140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225398-2	69477-1	58537-1	69669-1

¹Refer to pages 463-464 for code specifications.²Order AMP PRO-CRIMPER Coaxial "O" Crimp Hand Tool assembly 58433-1, which includes dies 58435-1.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.**Bulkhead Solder Jacks****Body Plating — Nickel**

Contact Material	Dielectric	Length	Part Numbers		Panel Thickness	Insulating Bushing
			Without Solder Terminal ¹	With Solder Terminal ²		
Silver	VALOX	1.060 26.93	227754-3	227755-3	.046-.125 1.17-3.18	227223-1
		1.312 33.33	—	227169-7	.046-.250 1.17-6.35	227223-1
Gold	VALOX	1.060 26.93	227754-2	227755-2	.046-.125 1.17-3.18	227223-1
		1.312 33.33	—	227169-8	.046-.250 1.17-6.35	227223-1
	TEFLON	1.060 26.93	227715-3	227716-3	.046-.125 1.17-3.18	227223-1
		1.312 33.33	227169-1	227169-5	.046-.250 1.17-6.35	227223-1
Tin Lead	VALOX	1.060 26.93	227754-1	—	.046-.125 1.17-3.18	227223-1

¹Includes lockwasher and jam nut.²Includes solder terminal and jam nut.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.**BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.**For Complete Product Information, Order Catalog 82074**

BNC Connectors, 50 Ohm (Continued)

Sealed Bulkhead Solder Jack

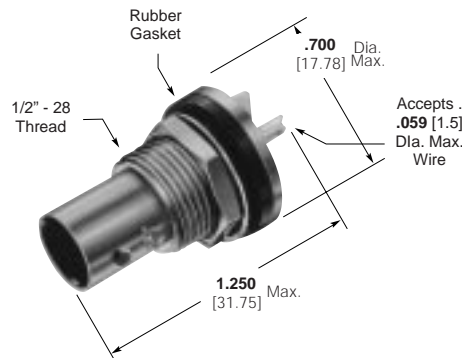
Plating

Body — Nickel

Center Contact — Gold

Dielectric — Polymethylpentene

This connector is designed to prevent moisture from entering the interface from the rear of the connector.



Part No. 227426-1

Note: See customer print or Catalog 82074 for recommended panel cutouts.

Isolated Bulkhead Solder Jacks

Plating

Body — Nickel

Center Contact — See chart

Dielectric — White VALOX



Part No. 414194-1

Center Contact Plating	Part No.	Flange & Thread Material
Tin	227726-1	VALOX
Silver	227726-2	VALOX
Gold	227726-3	VALOX

Note: See customer print or Catalog 82074 for recommended panel cutouts.

Plating

Body — Nickel

Center Contact — Gold

Dielectric — Black VALOX

Flange & Thread Material — Black VALOX

Right-Angle PC Board/Panel Mount Jacks

Plating

Body — Nickel

Center Contact — See chart

Dielectric — Polymethyl Pentene

Body Material	Center Contact Plating	Part Numbers		
		Without Mounting Posts	With Mounting Posts	With Compliant Posts
VALOX, White	Tin-Lead	226990-1	227161-1	—
	Gold1	226990-3	—	—
	Gold1	—	227161-7	—
VALOX, Black	Tin-Lead	226990-2	227161-2	—
	Gold1	226990-6	227161-6	—
	Gold1	—	227161-9	—
Metal	Gold1	—	415046-1	—
	Tin-Lead	227433-1	227661-1	—
	Gold1	227676-1	227677-1	—
High Temp. Housing	Gold1	—	413879-1	—
	Gold1	—	1-227161-3 ¹	—

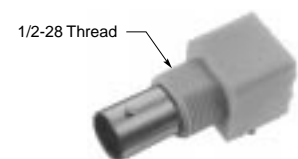
Plating:

Gold1 — .000030 [0.00076] thick

¹IR reflow compatible

Notes: 1. If an Insulating Bushing is required use part number 330620.

2. See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



VALOX Body



Metal Body

Note: Screw for panel thickness of 3/32 [2.38] or greater

Part No. 221108-2.

Screw for panel thickness of less than 3/32 [2.38]

Part No. 221108-4.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

BNC Connectors, 50 Ohm (Continued)

Vertical PC Board/Panel Mount Jacks

Plating

Body — Nickel

Center Contact — See chart

Dielectric — Polymethyl Pentene

RF Connectors (Continued)

Body Material	Center Contact Plating	Part Numbers	
		Without Mounting Posts	With Mounting Posts
VALOX, White	Tin-Lead	226993-1	227222-1
	Gold	226993-3	227222-3
VALOX, Black	Tin-Lead	226993-2	227222-2
	Gold	226993-6	227222-6
Metal	Tin-Lead	—	227671-1
	Gold	—	227673-1

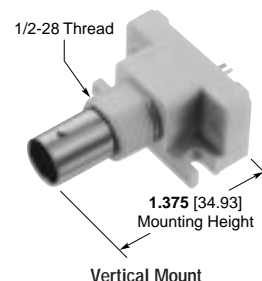
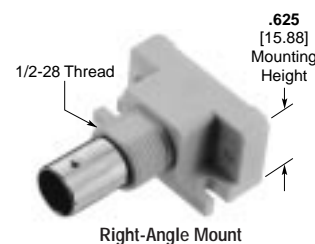
Notes: 1. If an Insulating Bushing is required use part number 330620.
2. See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



PC Board/Panel Mount Jacks with Mounting Flanges

Body Material	Center Contact Plating	Part Numbers	
		Right-Angle Mount	Vertical Mount
VALOX, White	Tin	226978-1	—
	Gold	226978-3	226987-7

Note: See customer print or Catalog 82074 for recommended panel cutouts.



Vertical Metalized PC Board Mount Jacks

Body Plating	Center Contact Plating	Dielectric	Part Numbers	Style	Leg Length
Nickel	Silver	VALOX	227699-1	A	.250 6.35
	Gold	VALOX	227699-2	A	.250 6.35
	Tin	VALOX	227699-3	A	.250 6.35
	Gold	VALOX	221123-2	B	.190 4.83
Tin-Lead	Silver	VALOX	222420-1	C	.175 4.45
	Gold	TEFLON	413969-2	D	.130 3.30
	Silver	VALOX	414305-1	C	.125 3.18
Nickel	Gold	VALOX	414460-1 ¹	A	.150 3.81

¹With .030 [.76] standoffs on top of legs.

Note: See customer print or Catalog 82074 for recommended PC board layouts.



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

BNC Connectors, 50 Ohm (Continued)

Right-Angle PC Board Mount Jacks

RF Connectors (Continued)

Body Plating	Dielectric	Center Contact Length	Part Number
Nickel	Polymethyl Pentene	.171 4.34	413631-1
Tin-Lead	TEFLON	.171 4.34	413631-2
Nickel	Polymethyl Pentene	.131 3.33	413631-3

Note: See customer print or Catalog 82074 for recommended PC board layouts.

Body	Dielectric	Contact	Part Number
Nickel	TPX	Gold	414373-1
Tin-Lead	TPX	Gold	414373-4 ¹

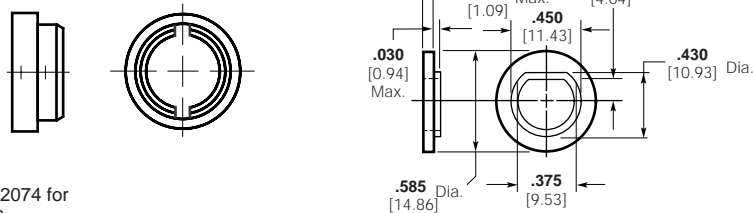
¹Board retention leg prevents connector from tipping during wave solder. For 414373-4 only.

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Insulating Bushing

Material — Nylon
Part No. 222163-1



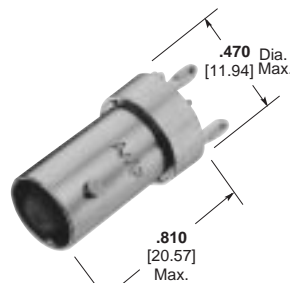
Note: See customer print or Catalog 82074 for recommended PC board layouts.

Part No. 227223-1

Press Fit Terminal

Plating

Body — Nickel
Center Contact — Gold
Dielectric — TEFLON
Product Specification
108-12103
Application Specification
114-12001



Part No. 222006-1

Note: See customer print or Catalog 82074 for recommended PC board layouts.

Right-Angle Adapters

(Jack-Plug)

Body Plating	Center Contact Plating	Dielectric	Part No.	Style
Nickel	Gold	TEFLON	222165-2	A
Nickel	Gold	Polymethylpentene	414666-1	B



Style A



Style B

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

**BNC Connectors,
50 Ohm** (Continued)**Bulkhead Jack Adapters**
(Jack-Jack)**RF Connectors** (Continued)

Body Plating	Center Contact Plating	Dielectric	Part No.	Comparable UG/U Connector
Nickel	Gold2	Polyethylene	228226-1	—

Plating:

Gold2—.000050 [0.00127] thick

Notes: 1. If an Insulating Bushing is required use part number 330620.
2. See customer print or Catalog 82074 for recommended panel cutouts.

**Jack Covers**

Body Plating	Part No.
Nickel	1-330022-2

**Feed-Thru Adapters** (Jack-Jack)

Body Plating	Center Contact Plating	Dielectric	Style	Part No.	Comparable UG/U Connector
Nickel	Silver	TEFLON	A	221551-1	914
Nickel	Gold	TEFLON	A	221551-3	
Nickel	Gold	Polymethyl-pentene	B	414414-1	—



Style A



Style B

**Terminator Plugs –
50, 75, 93 Ohms****Plating**

Body — Nickel

Center Contact — Gold

Dielectric — Polyethylene

Resistor Specification	Part Numbers	
	With Tether	Without Tether
1 Watt, 50 Ohms	221629-1	221629-4
1 Watt, 75 Ohms	—	221629-5
1 Watt, 93 Ohms	—	221629-6
1 Watt, 50 Ohms	1-221629-6 ¹	—

¹ Tether is conductive with #4 stud size**For Complete Product Information, Order Catalog 82074**

**BNC Connectors,
75 Ohm****Plugs and Right-Angle
Plugs, Crimp**

These connectors have been designed for optimum performance and have a true 75 ohm impedance the complete length of the connector. The crimp die tooling listed below is different from the equivalent 50 ohm connectors.

RF Connectors (Continued)**Plug****Right-Angle
Plug****Plugs**

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B1	179, 179A, 179B, 187, 187A, 161, Belden 9221	HexCrimp	Gold	Nickel	Polyethylene	Commercial	—	413589-8	—	58425-2	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-8	—	318451-2	—
B4	AT&T 735A	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-413589-0	—	58425-2	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221185-8	—	58174-1	58248-3
C3	Belden 8218	Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-3	—	58174-1	58248-3
G	140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413589-2	—	58425-1	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-2	—	58536-1	58248-2
G1	302, Belden 89269, 88241, Hi-Temp 62A, Times PL-62, Berk Tek BTDC- 59, BTDC-62	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413589-1	—	58425-1	—
G4	Belden 8212, 9104, 9112, 9167, 9240, 9259, 9266, Times FM-59, (RG-59 Type with 20 AWG C.C.)	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413589-9	—	58425-1	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-9	—	58536-1	58248-2
G5	Belden 9145, AT&T 734A	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413589-7	—	58425-1	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	1-221185-0	—	58536-1	—
J1	Belden 9248, 9114	Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-1	—	58536-1	—
K	6, 6A	Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-7	—	58538-1	58248-1
K2	Belden 8281, 9141, 9231, Western Electric 724, 728, 3049	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413589-5	—	58425-3	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221185-5	—	58538-1	58248-1

¹Refer to pages 463-464 for code specifications.

Right-Angle Plugs, Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B1	179, 179A, 179B, 187, 187A, 161 Belden 9221	Hex Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	413588-8	—	58425-2	—
B4	AT&T 735A	Hex Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	1-413588-0	—	58425-2	—
G	140, 210, 62, 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269	Hex Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	413588-2	—	58425-1	—
		Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	—	221402-2	—	58536-1	—

¹Refer to pages 463-464 for code specifications.

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

**BNC Connectors,
75 Ohm (Continued)****Plugs****Plating****Body** — Nickel**Center Contact** — Gold**RF Connectors (Continued)**

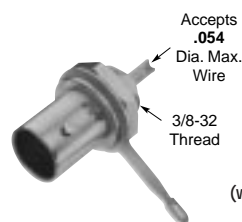
JIS Cable	Termination Type	Dielectric	Impedance	Part No.	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1
2.5C-2V	Hex Crimp	Polymethylpentene	75Ω	1-413589-6	58425-2

**Jacks and Bulkhead Jacks,
Crimp****Jacks**

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B1	179, 179A, 179B, 161, 187, 187A Belden 9291,	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413760-8	—	58425-2	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221199-6	—	318451-2	—
G	140, 210 62A, 62B, 59, 59A, 59B, Belden 9291, 9209, 9269	Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221199-2	—	58536-1	58248-2
G4	Belden 8212, 9104, 9112, 9240, 9167, 9259, 9266, Times FM-59, (RG-59 Type with 20 AWG C.C.)	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413760-9	—	58425-1	—

¹Refer to pages 463-464 for code specifications.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.**Bulkhead Jacks, Crimp**

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
B1	179, 179A, 179B, 161, 187, 187A, Belden 9221	Hex Crimp	Gold	Nickel	Polyethylene	Commercial	—	413590-8	—	58425-2	—
		Dual Crimp	Gold	Nickel	Polyethylene	Commercial	—	221221-5	—	318451-2	—

¹Refer to pages 463-464 for code specifications.**Rear Mount Bulkhead
Solder Jack****Plating****Body** — Nickel**Center Contact** — Gold**Note:** See customer print or Catalog 82074 for recommended panel cutouts.Part No. 221244-1
(with Solder Terminal)**BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

BNC Connectors, 75 Ohm (Continued)

**Front Mount
Sealed Bulkhead
Solder Jack**

RF Connectors (Continued)

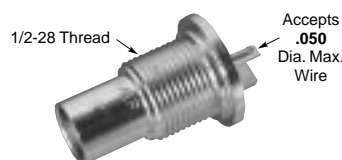
Plating

Body — Nickel

Center Contact — Gold

Dielectric — Polymethylpentene

Note: See customer print or Catalog 82074 for recommended panel cutouts.



Part No. 414217-1

Right-Angle PC Board/Panel Mount Jacks

Outer Shell — Nickel

Dielectric — Polymethylpentene

Contact — See Chart

Body Material	Center Contact Plating	Part Number
VALOX, White	Gold1	413194-1
VALOX, Black	Gold1	413194-2
VALOX, White	Gold2	414459-1
Metal	Gold1	222092-1
Metal (Economy) ¹	Gold1	414409-1
—	Silver	222092-2
Metal	Gold1	414907-1

Plating:

Gold1 — .000030 [0.00076] thick

Gold2 — .000050 [0.00127] thick

¹Stamped and formed contact, Phosphor Bronze contact material

Note: 1. If an Insulating Bushing is required use part number 330620. Phosphor Bronze contact material
2. See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



VALOX Body



Metal Body

Screw for panel thickness of **3/32**

[2.38] or greater

Part No. 221108-2.

Screw for panel thickness of less than **3/32** [2.38]

Part No. 221108-4.

Vertical PC Board/Panel Mount Jacks

Plating

Outer Shell — Nickel

Center Contact — See Chart

Dielectric — Polymethylpentene

Body Material	Center Contact Plating	Part Number
VALOX, Black	Gold1	413528-1 413933-1 ¹
VALOX, Black (Economy) ²	Gold	415632-1
Metal	Gold1	222132-1

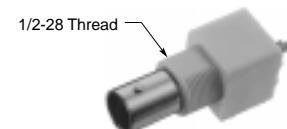
Plating:

Gold1 — .000030 [0.00076] thick

¹Without mounting posts

²Stamped and formed contact, Phosphor Bronze contact material

Notes: 1. If an Insulating Bushing is required see part number 330620.
2. See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



VALOX Body



Metal Body

Screw for panel thickness of **3/32**

[2.38] or greater

Part No. 221108-2.

Screw for panel thickness of less than **3/32** [2.38]

Part No. 221108-4.

Vertical Metalized PC Board Mount Jacks

Plating

Body — See chart

Center Contact — See chart

Dielectric — TEFLON

Body Plating	Center Contact Plating	Part Numbers
Nickel	Gold	413885-1
Tin-Lead	Gold	413885-3
Tin-Lead	Gold	414394-1
Nickel	Silver	413986-1

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Style A



Style C



Style B

Press Fit

Length	Part No.
.810	222462-1
20.57	
.640	414088-1
16.26	

Plating

Body — Nickel

Center Contact — Gold

Dielectric — TEFLON



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

BNC Connectors, 75 Ohm (Continued)

Press Fit
Vertical Metalized
PC Board Mount
Jacks (Continued)

RF Connectors (Continued)

PC Board Thickness
.093 [2.36] Min.
Part No. 221336-3



Note: See customer print or Catalog 82074 for recommended PC board layouts.

Right-Angle PC Board Mount Jack

Body Plating	Dielectric	Contact Plating	Center Contact Dimension	Part Number
Nickel	TPX	Gold2	.171	413558-1
Tin-Lead	TEFLON	Gold2	.171	413558-2

Gold1 — .000030 [0.00076] thick
Gold2 — .000050 [0.00127] thick



Note: See customer print or Catalog 82074 for recommended PC board layouts.

Bulkhead Jack Adapter

Plating

Body — Nickel
Center Contact — Gold
Dielectric — Polymethylpentene

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Part No. 222117-1

Decoupled Connectors

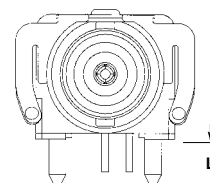
Mounting Post Styles



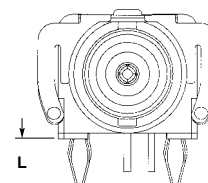
Vertical Mount BNC
Style A



Right-Angle Mount BNC
Style B



Standard



Compliant

Description	Capacitance/ Voltage	Clip	Mounting Post	Style	Part No.
Vertical	9400pF 1500VDC	Standard	Standard	A	413476-2
Low Profile Right Angle	9400pF 500VDC	Standard	Standard	B	413515-1
	9400pF 1500VDC	Standard	Standard	B	413515-2
	7900pF 1600VDC	Standard	Compliant	B	413515-7
	9400pF 1500VDC	Standard	Compliant	B	413515-8
	9400pF 1500VDC	Standard	Compliant	B	413515-9
Standard Right Angle	9400pF 1500VDC	Standard	Standard	B	413524-2
	9400pF 1500VDC	Standard	Compliant	B	413524-5
Low Profile Right Angle w/ Special Clip & High Temperature Housing	9400pF 500VDC	Extended	Compliant	B	414284-1

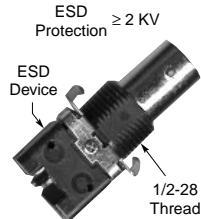
Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

Decoupled Connectors, (Continued)

Right-Angle Decoupled to Panel ESD Protected



RF Connectors (Continued)

Description	Capacitance/ Voltage	Contact Plating	Clip	Mounting Post	L Mounting Post Length	B	A	Part No.
50Ω Product								
Low Profile Right Angle W/ ESD Protection	7900pF 1500VDC	Gold1	Standard	Compliant	.110 2.79	.519 13.18	.272 6.91	414651-3
Low Profile Right Angle W/ Short Electrical Path ESD Protection	9400pF 1500VDC	Gold1	Short Electrical Path	Compliant	.185 4.70	.519 13.18	.272 6.91	415010-1

Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.
Gold1 — .000030 [0.00076] thick.

Right-Angle BNC Decoupled to Board



Part No. 415205-1

Note: See customer print or Catalog 82074 for recommended PC board layouts.

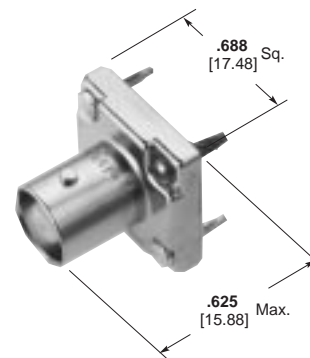
BNC Jack, PC Board Action Pins

Material

Dielectric—TEFLON
Isolation Pad—Polyester

Plating

Body—Nickel
Ground Clip—Nickel
Center Contact—Gold
Action Pin Legs—Gold



Part No. 414553-1 50 Ohm
Part No. 414493-1 75 Ohm

Note: See customer print or Catalog 82074 for recommended PC board layouts.

50Ω and 75Ω BNC Bulkhead Jacks, Crimp



Connector Cable Range Selection Code	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	Part No.	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
50V D	RG58, 58A, 58B, 58C	Hex Crimp	Gold	Nickel	Polymethylpentene	Commercial	414758-1	58465-1
50V B	RG174, 174A, 316, 188, 188A	Hex Crimp	Gold	Nickel	Polymethylpentene	Commercial	414758-2	58465-3

Note: See customer print or Catalog 82074 for recommended panel cutouts.

Note: See customer print or Catalog 82074 for recommended PC board layouts.

For Complete Product Information, Order Catalog 82074

TNC Connectors, 50 Ohm

RF Connectors (Continued)

Plugs, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
D	58, 58A, 58B, 58C	Hex Crimp	Gold	Nickel	Polypropylene	Commercial	—	222506-1	—	58436-1 ³	—
D, D1	58, 58A, 58B, 58C 141, 141A, 303	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	—	227000-5	220187-1	58435-1 ²	220217-1
D1	141, 141A, 303	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-5	220045-2	—	—
C2, D1	Belden 9907, 89907, 8219, CommScope 3104, 2104, RG141, 141A, 303	Hex Crimp	Gold	Nickel	Polypropylene	Commercial	—	222506-8	—	58465-1	—
E	223, 55, 55A, 55B	Hex Crimp	Gold	Nickel	Polypropylene	Commercial	—	225550-1	—	58465-1	—
E1	142, 142A 142B, 400	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-6	220045-2	—	—
G	124, 140, 210 62, 62A, 62B 59, 59A, 59B Belden 9291 9209, 9269	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	—	227000-7	220187-2	58435-1 ²	220217-2
M	8, 8A, 213	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-7	220015-1	—	—
M3	Alpha 9847, Belden 8213, 9292,	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	222550-3	—	—	—
M4	225, 393	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225550-2	220015-1	—	—
N	9, 9A, 9B, 214	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225550-8	220015-1	—	—

¹Refer to pages 463-464 for code specifications.²Order AMP PRO-CRIMPER Coaxial "O" Crimp Hand Tool assembly 58433-1, which includes dies 58435-1.³Order AMP PRO-CRIMPER Coaxial Hex Crimp Hand Tool assembly 58433-2, which includes dies 58436-1.

Right-Angle Plugs, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
D	58, 58A, 58B 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225559-2	220045-2	—	—
E1	142, 142A, 142B 400	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225554-6	220045-2	—	—
M4	393, 225	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225554-1	220015-1	—	—

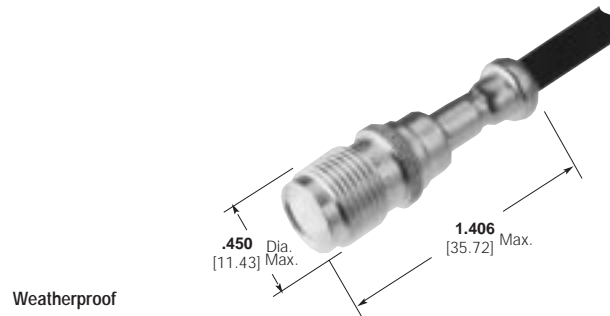
¹Refer to pages 463-464 for code specifications.

TNC Connectors, 50 Ohm

(Continued)

RF Connectors (Continued)

Jacks, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
D	58, 58A, 58B 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225551-2	220045-2	—	—
E1	142, 142A, 142B 400	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225551-6	220045-2	—	—

¹Refer to pages 463-464 for code specifications.

Bulkhead Jacks for Semi-Rigid Cable, Rear Mount



Dual Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.
0	402 Semi-Rigid/.141	Crimp	Gold	Nickel	TEFLON	Mil Type		228502-2

¹Refer to pages 463-464 for code specifications.

Bulkhead Jacks, Crimp



Dual Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER Hand Tool 354940-1 or PRO-CRIMPER Adapter 678304-1	Interchangeable Dies for Hand Tool 69710-1 & 626 Pneu. Head 318161-1
D	58, 58A, 58B 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225557-2	220045-2	—	—
E1	142, 142A, 142B 400	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225557-6	220045-2	—	—

¹Refer to pages 463-464 for code specifications.

For Complete Product Information, Order Catalog 82074

TNC Connectors, 50 Ohm

(Continued)

Right-Angle
PC Board/Panel Mount
Jacks

RF Connectors (Continued)

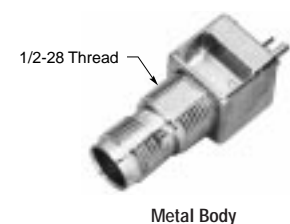
Body Material	V	Center Contact Plating	Dimensions		Part Numbers	
			A	B	Without Mounting Posts	With Mounting Posts
Metal	50	Gold	.325 8.26	.820 20.83	227838-1	227839-1

Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.

Vertical
PC Board/Panel Mount
Jacks

Body Material	Center Contact Plating	Part Numbers	
		Without Mounting Posts	With Mounting Posts
Metal	Gold	—	227835-1

Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



2-56 Self-Tapping Screws

For 3/32 [1.57] or greater panel thickness

Part No. **221108-2**.

For less than 3/32 [1.57] panel thickness

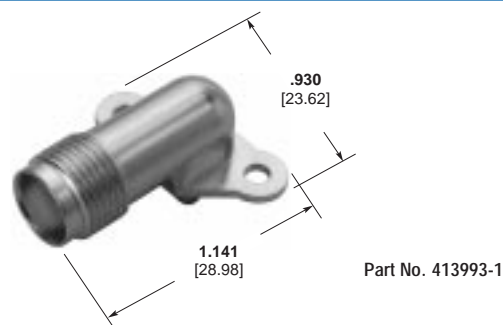
Part No. **221108-4**.Right-Angle PC Board
Panel Mount Jacks

Plating

Body — Nickel

Center Contact — Gold

Dielectric — TEFLON

Bulkhead Solder
Jacks

Plating

Body — Nickel

Center Contact — Gold

Dim. L	Dielectric	Panel Thickness	Part Numbers	
			With Solder Terminal	Without Solder Terminal
1.312 33.33	VALOX	.046-.250 1.17-6.35	—	227764-2

Note: See customer print or Catalog 82074 for recommended panel cutouts.

Bulkhead Jack
Adapter

Plating

Body — Nickel

Center Contact — Gold

Dielectric — Acetal



Part No. 221500-1

Note: See customer print or Catalog 82074 for recommended panel cutouts.

For Complete Product Information, Order Catalog 82074

N Connectors, 50 Ohm

RF Connectors (Continued)

Plugs, Crimp

Mil Type
Dual Crimp

Semi-Rigid Cable

Commercial
Dual Crimp

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool
D	58, 58A, 58B, 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	1-225661-2	220045-2
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225661-1 ²	220045-2
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225392-7 ²	220045-2
E	223, 55, 55A, 55B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	1-225661-1 ²	220045-2
E1	142, 142A, 142B, 400	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	1-225361-5 ²	220045-2
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225699-1 ²	220045-2
L	115A Belden 89880	Hex Crimp	Gold	Nickel	TEFLON	Commercial	—	414160-3	58501-1 ⁴
M	8, 8A, 213	Hex Crimp	Gold	Nickel	TEFLON	Commercial	—	1-414160-1 ²	58501-2 ³
		Dual Crimp	Gold	Nickel	TEFLON	Commercial	—	1-227086-0 ²	220015-1 ²
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225661-2	220015-1
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	01B0007	51692-2	220015-1
M3	393	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225662-2	220015-1
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225662-8	58501-1 ⁴
N	9, 9A, 9B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225661-1	220015-1
		Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225662-2	220015-1
		Dual Crimp	Gold	Nickel	TEFLON	Commercial	—	1-227086-1	220015-1
O	402 Semi-Rigid/.141	Crimp	Gold	Nickel	TEFLON	Mil Type	—	228440-1	5

¹ Refer to pages 463-464 for code specifications.² Hand Tool 69710-1, Pneumatic Tools 69365 and 69365-3, with Die Insert 220062-1, are available to terminate these connectors.³ Order PRO-CRIMPER II Coaxial Hex Crimp Hand Tool assembly Part No. 58501-2, which includes die Part No. 58485-2.⁴ Order PRO-CRIMPER II Coaxial Hex Crimp Hand Tool assembly Part No. 58501-1, which includes die Part No. 58485-1.⁵ Tooling—Hand Tool No. 59980-1, Requires (2) Crimping Dies No. 312253-1 and (1) Locator No. 220220-2. Pneumatic Tool No. 58318-1, Requires (2) Crimping Dies No. 313720-1 and (1) Locator No. 220241-1.

Right-Angle Plugs, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool
E1	142, 142A, 142B, 400, Belden 9246	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225394-2 ²	220045-2
M	8, 8A, 213	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	225669-2	220015-1
N	9, 9A, 9B, 214	Dual Crimp	Gold	Silver	TEFLON	Mil Type	05B0003	225014-3	220015-1

¹ Refer to pages 463-464 for code specifications.² Hand Tool 69710-1, Pneumatic Tools 69365 and 69365-3, with Die Insert 220062-1, are available to terminate these connectors.

For Complete Product Information, Order Catalog 82074

N Connectors, 50 Ohm

(Continued)

RF Connectors (Continued)

Jacks, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool
D	58, 58A, 58B, 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	1-225664-2	220045-2
M	8, 8A, 213	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225664-2	220015-1

¹Refer to pages 463-464 for code specifications.

Bulkhead Jacks, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool
D	58, 58A, 58B, 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	—	1-225663-1	220045-2
M	8, 8A, 213	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225094-2	220015-1

¹Refer to pages 463-464 for code specifications.^{*}Hand Tool 69710-1, Pneumatic Tools 69365 and 69365-3, with Die Insert 220062-1, are available to terminate these connectors.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.

Bulkhead Jacks for Semi-Rigid Cable



Rear Mount

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool
O	402 Semi-Rigid/.141	Crimp	Gold	Nickel	TEFLON	Mil Type	Rear Mount	228658-1	2

¹Refer to pages 463-464 for code specifications.²Tooling—Hand Tool No. 59980-1, Requires (2) Crimping Dies No. 312253-1 and (1) Locator No. 220220-2. Pneumatic Tool No. 58318-1, Requires (2) Crimping Dies No. 313720-1 and (1) Locator No. 220241-1.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.

Feed-Thru Jack Adapter (Jack-Jack)

Plating

Body — Nickel

Dielectric — General Purpose Polypropylene

Contact — Gold plated
Part No. 227945-1

Terminators

Plating

Body — Nickel

Dielectric — TEFLON

Contact — Gold plated
Part No. 227953-1Contact — Gold plated
Part No. 227997-1

For Complete Product Information, Order Catalog 82074

UHF Connectors, Miniature

RF Connectors (Continued)

Plugs, Crimp



Nickel Plating

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Part No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool-69710-1 Pneu.-69365, 69365-3	Dies for AMP-O-LECTRIC Machine 220152-1
D	58, 58A, 58B, 58C	Dual Crimp	Tin	Nickel	Polypropylene	226600-1	220149-1	58158-1	220162-1

¹Refer to pages 463-464 for code specifications.

Jacks, Crimp



Stamped and Formed Contacts
P/N 414478-2
for use with P/N 414477-1

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Part No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool-69710-1 Pneu.-69365, 69365-3	Dies for AMP-O-LECTRIC Machine 220152-1
B	316	Dual Crimp	Gold	Nickel	Polymethyl-pentene	414477-1 ³	—	58159-1	—
D	58, 58A, 58B, 58C	Dual Crimp	Tin	Nickel	Polypropylene	226602-1	220149-1 58124-1 ²	58158-1	220162-1

¹Refer to pages 463-464 for code specifications.²Economy hand tool does not have CERTI-CRIMP ratchet feature.³To terminate stamped and formed center contact 414478-2 use AMP-O-LECTRIC machine 565435-5 with applicator 567386-2.

Bulkhead Jacks, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Flange Shape	Rubber Gasket	Part No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool-69710-1 Pneu.-69365, 69365-3
B	174, 316 188, 188A	Dual Crimp	Tin	Nickel	Polypropylene	Hex	No	228665-2	58124-1 ²	58159-1

¹Refer to pages 463-464 for code specifications.²Economy hand tool—does not have CERTI-CRIMP ratchet feature.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.

UHF Connectors, Miniature

(Continued)

Panel Solder Jack

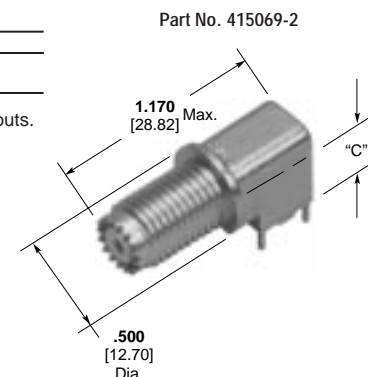
Termination Type	Center Contact Plating	Body Plating	Dielectric	Part No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool-69710-1 Pneu.-69365, 69365-3
Solder	Tin	Nickel	TPX	226601-3 ¹ (Pre-Plated)	—	—

¹Stamped and formed contact.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.

Part No. 226601-3

Right Angle PC Board Jack

Body Plating	Dielectric	"C"	Part Number
Tin-Lead	T	.348 8.84	415069-2

Note: See customer print or Catalog 82074 for recommended panel cutouts.

For Complete Product Information, Order Catalog 82074

UHF Connectors, Standard

RF Connectors (Continued)

Plugs, Crimp



Style 1



Style 2

Connector Cable Range Selection Code ¹	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	Part No.	Integral Die Hand Tool	Crimping Dies for AMP-O-LECTRIC Machine 220152-1
D	58, 58a	Single Crimp	Tin	Nickel	Polypropylene	1	226279-1	220045-2	—
	58B, 58C	Single Crimp	Silver	Silver	Polypropylene	2	1-226279-3	220045-2	—
G	124, 140, 210 59, 59A, 59B, 62, 62A, 62B, Belden 9291, 9209, 9269, 89269	Single Crimp	Tin	Nickel	Polypropylene	1	226279-3	220094-1 ² 220148-1 ³	—
M	8, 8A, 213	Single Crimp	Tin	Nickel	Polypropylene	1	226279-2	220095-1	—

¹Refer to pages 463-464 for code specifications.

²CERTI-CRIMP Hand Tool.

³Stamped Hand Tool—does not have CERTI-CRIMP ratchet feature.

Jack, Crimp



Connector Cable Range Selection Code ¹	RG/U Cable	Connector Type	Termination Type	Center Contact Plating	Body Plating	Dielectric	Part No.	Integral Die Hand Tool	Crimping Dies for AMP-O-LECTRIC Machine 220152-1
D	58, 58A, 58B, 58C	Jack	Single Crimp	Tin	Nickel	Polypropylene	226694-1	—	220165-1

¹Refer to pages 463-464 for code specifications.

F Series Connectors

Plugs

RG/U Cable	Termination Type	Body Plating	Part No.	Threads
6	Crimp	Nickel	221539-2	
59	Screw-On	Nickel	221540-1	1/4-20 UNC-2B



Screw-On Style

Right-Angle, PC Board Mount Jack, High Temperature

Dielectric			Solder Post Plating	Part Number
Bottom	Middle	Front		
Acetal	Acetal	Polypropylene	Nickel	415024-1

Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



Right Angle PC Board Plug

Includes board retention feature to prevent tipping during solder process.

Tin-Lead plated body to facilitate soldering process.



Part No. 415506-1

F Jack to G Jack Bulkhead Adapter Sealed

Contact Plating—Tin-Lead

Shell Plating—Nickel

Clip Plating—Tin-Lead

Sealed to 15PSI

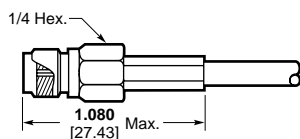


Part No. 887058-1

For Complete Product Information, Order Catalog 82074

SMA Connectors, Hex Crimp and PC Board

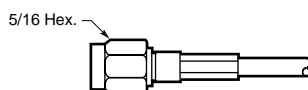
Jack



RF Connectors (Continued)

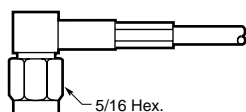
RG/U	Part No.	Body Material and Finish	Center Contact Crimp			Ferrule Crimp	
			Military Tool	Positioner	Setting	Military Tool	Die Part No.
174, 174A, 188, 188A, 316	447648-3	Brass, Ni plated	M22520/2-01	M22520/2-20	4	M22520/5-01	M22520/5-35 B

Plug



RG/U	Part No.	Body Material and Finish	Center Contact Crimp			Ferrule Crimp	
			Military Tool	Positioner	Setting	Military Tool	Die Part No.
142, 142A, 142B	447647-2	Brass, Ni plated	M22520/2-01	M22520/2-20	7	M22520/5-01	M22520/5-11 A
174, 174A, 188, 188A, 316	447647-3	Brass, Ni plated	M22520/2-01	M22520/2-20	4	M22520/5-01	M22520/5-35 B
174DB, 188DB, 316DB	447647-4	Brass, Ni plated	M22520/2-01	M22520/2-20	4	M22520/5-01	M22520/5-35 B
RG55, 55A, 223	1-447647-0	Brass, Ni plated	M22520/2-01	M22520/2-20	7	M22520/5-01	M22520/5-11 A
Belden YR20621	1-447647-1	Brass, Ni plated	M22520/2-01	M22520/2-20	6	M22520/5-01	M22520/5-11 A

Right-Angle Plug



RG/U	Part No.	Body Material and Finish	Center Contact Crimp			Ferrule Crimp	
			Military Tool	Positioner	Setting	Military Tool	Die Part No.
142, 142A, 142B	447651-2	Brass, Ni plated	M22520/2-01	K997	7	M22520/5-01	M22520/5-11 A
174, 174A, 188A, 188B, 316	447651-3	Brass, Ni plated	M22520/2-01	K997	4	M22520/5-01	M22520/5-11 A

SMA Connectors for Semi-Rigid Cable

Plugs, Compression Crimp

Materials

Center Contacts — Beryllium copper per ASTM-B-196, gold plated

Shells — Stainless steel per ASTM-A-582, passivated or gold plated

Coupling Nuts — Stainless steel per ASTM-A-582, passivated

Dielectrics — TEFLON per ASTM-D-1710

Grip Rings — Brass per ASTM-B-36

Gaskets — Silicone rubber per ZZ-R-765

Finishes

Passivate per QQ-P-35

Gold per MIL-G-45204

Nickel per QQ-N-290



Plug with Center Contact



Short Plug with Center Contact

Connector Cable Range Selection Code ¹	RG/U Cable	Connector Configuration	Frequency Max.	Body Finish	Part No.	Connector Part Numbers ⁶				Tooling Part Numbers			
						Category B		Category F		Hand Tool Kit No. 59981-1		Pneumatic Tool No. 58318-1	
						M39012/Military No.	AMP Part No.	M39012/Military No.	AMP Part No.	Die Set (M22520/)	Locator	Die Set ⁵	Locator
O	402 Semi-Rigid/.141 [3.58]	Plug with Center Contact	18 GHz	Passivated	—	79B3104	227743-1	79-3308	228634-1	312253-1 (36-03)	220221-2 (36-04)	313720-1	308075-2
		Plug without Center Contact	18 GHz	Gold Plated	228634-2	—	—	—	—	312253-1 (36-03)	220220-2 (36-06)	313720-1	220241-1
		Plug without Center Contact	18 GHz	Passivated	—	92B3101	227531-1	92-3301	228635-1	312253-1 (36-03)	220220-2 (36-06)	313720-1	220241-1
P	405 Semi-Rigid/.086 [2.18]	Plug with Center Contact	18 GHz	Passivated	—	79B3103	227868-1	79-3307	228639-1	312253-2	220221-2	313719-1	308075-2
		Short Plug with Center Contact	18 GHz	Passivated	221447-1 ²	—	—	—	—	313113-1 ^{3,4}	220221-3 ³	313719-1	313123-1 ⁵
		Short Plug with Center Contact	18 GHz	Passivated	221447-1 ²	—	—	—	—	313113-1 ^{3,4}	220221-3 ³	313719-1	313123-1 ⁵

¹Refer to pages 463-464 for code specifications.

²Meets or exceeds Air Force Drawing.

³Not included in Hand Tool Kit No. 59981-1; must be purchased separately.

⁴Die Set No. 312253-2 also may be used; consult AMP Incorporated for straight cable length requirements.

⁵Not included with Pneumatic Tool No. 58318-1; must be purchased separately.

⁶Consult latest issue of MIL-C-39012 and QPL for current military dash numbers.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

SMA Connectors for Semi-Rigid Cable (Continued)

Right-Angle Plugs, Compression Crimp

Materials and Finishes

(See previous page)



Connector Cable Range Selection Code ¹	RG/U Cable	Connector Configuration	Frequency Max.	Body Finish	Part No.	Connector Part Numbers ²				Tooling Part Numbers			
						Category B		Category F		Hand Tool Kit No. 59981-1		Pneumatic Tool No. 58318-1	
						M39012/ Military No.	AMP Part No.	M39012/ Military No.	AMP Part No.	Die Set (M22520/)	Locator ³	Die Set ⁵	Locator ⁵
O	405 Semi-Rigid/ .086 [2.18]	Right-Angle Plug with Center Contact	18 GHz	Passivated	—	—	—	80-3307	228626-1	312253-2	312173-1	313719-1	59966-1
P	405 Semi-Rigid/ .086 [2.18]	Right-Angle Plug with Center Contact	18 GHz	Passivated	—	—	—	80-3307	228583-1	312253-2	312173-1	313719-1	59966-1

¹Refer to pages 463-464 for code specifications.

²Consult latest issue of MIL-C-39012 and QPL for current military dash numbers.

³Not included in Hand Tool Kit No. 59981-1; must be purchased separately.

⁵Not included with Pneumatic Tool No. 58318-1; must be purchased separately.

Bulkhead Jack, Compression Crimp

Materials and Finishes

(See previous page)



Connector Cable Range Selection Code ¹	RG/U Cable	Connector Configuration	Frequency Max.	Body Finish	Part No.	Connector Part Numbers ²				Tooling Part Numbers			
						Category B		Category F		Hand Tool Kit No. 59981-1		Pneumatic Tool No. 58318-1	
						M39012/ Military No.	AMP Part No.	M39012/ Military No.	AMP Part No.	Die Set (M22520/)	Locator	Die Set ⁵	Locator
O	402 Semi-Rigid/ .141 [3.58]	Bulkhead	18 GHz	Passivated	227746-3	83B3004	227746-1	83-3208	228638-1	312253-1	220222-2	313720-1	308075-2

¹Refer to pages 463-464 for code specifications.

²Consult latest issue of MIL-C-39012 and QPL for current military dash numbers.

⁵Not included with Pneumatic Tool No. 58318-1; must be purchased separately.

Note: See customer print or Catalog 82074 for recommended panel cutouts.

SMA Connectors for Flexible Cable

Plugs, Crimp

Materials

Center Contacts — Brass per ASTM-B-16 or beryllium copper per ASTM-B-197, gold plated

Bodies — Stainless steel per ASTM-A-582, passivated or brass, nickel plated

Coupling Nuts — Stainless steel per ASTM-A-582, passivated or brass, nickel plated

Ferrules — Copper, annealed per ASTM-B-188, tin-lead plated

Dielectrics — TEFLON per ASTM-D-1710

Gaskets — Silicone Rubber per ZZ-R-765

Finishes

Passivated per QQ-P-35

Gold per MIL-G-45204

Tin-Lead per ASTM-B-545



Connector Cable Range Selection Code ¹	RG/U Cable	Body and Coupling Nut Material and Plating	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool	Die Insert for Pneumatic Tools 69365, 69365-3
B	174	Stainless Steel, Passivated	Mil Type	55B3019	225532-4	220061-1	220091-1
	188, 188A, 316	Stainless Steel, Passivated	Mil Type	—	221117-2	220061-1	220091-1
B1	179, 179A, 179B 161, 187, 187A Belden 9221	Stainless Steel, Passivated	Mil Type	—	225532-8	220061-1	220091-1
D	58, 58A, 58B, 58C	Stainless Steel, Passivated	Mil Type	55B3021	225532-1	220061-1	220091-1
E	223 55, 55A, 55B	Stainless Steel, Passivated	Mil Type	55B3023	1-225532-0	220061-1	220091-1
E1	142, 142A, 142B 400 Belden 84142	Stainless Steel, Passivated	Mil Type	55B3022	225532-3	220061-1	220091-1

¹Refer to pages 463-464 for code specifications.

For Complete Product Information, Order Catalog 82074

SMA Connectors for Flexible Cable

(Continued)

Right Angle Plugs, Crimp

Materials and Finishes

(See page 488)



RF Connectors (Continued)

Connector Cable Range Selection Code ¹	RG/U Cable	Body and Coupling Nut Material and Plating	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool	Die Insert for Pneumatic Tools 69365, 69365-3
B	174	Stainless Steel, Passivated	Mil Type	55B3019	225609-4	220061-1	220091-1
	188, 188A, 316	Stainless Steel, Passivated	Mil Type	—	221171-2	220061-1	220091-1
B1	179, 179A, 179B 161, 187, 187A Belden 9221	Stainless Steel, Passivated	Mil Type	—	225609-8	220061-1	220091-1
D	58, 58A, 58B, 58C	Stainless Steel, Passivated	Mil Type	55B3021	225609-1	220061-1	220091-1
E	223 55, 55A, 55B	Stainless Steel, Passivated	Mil Type	55B3023	1-225609-0	220061-1	220091-1
E1	142, 142A, 142B	Stainless Steel, Passivated	Mil Type	55B3022	225609-3	220061-1	220091-1
	400, Belden 84142	Stainless Steel, Passivated	Mil Type	—	221171-1	220061-1	220091-1

¹Refer to pages 463-464 for code specifications.

Bulkhead Jacks, Crimp

Materials and Finishes

(See page 488)



Connector Cable Range Selection Code ¹	RG/U Cable	Body and Coupling Nut Material and Plating	Style	M39012/ Military No. and/or Comments	Part No.	Integral Die Hand Tool	Die Insert for Pneumatic Tools 69365, 69365-3
B	174, 188, 188A, 316	Stainless Steel, Passivated	Mil Type	—	225608-4	220061-1	220091-1

¹Refer to pages 463-464 for code specifications.

Note: See customer print or Catalog 82074 for recommended panel cutouts.

SMA Adapters and PC Board Connectors

Bulkhead Jack Adapter

(Jack-Jack)

Note: See customer print or Catalog 82074 for recommended panel cutouts.



Part No. 221643-1

SMA Bulkhead Launcher

Center Contacts — Gold 0.76mm
[.000030] minimum thick



Part No. 415702-1

PC Board Connectors

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Vertical Jack

Brass Body, Gold Plated
Part No. 221789-1
Part No. 221789-3

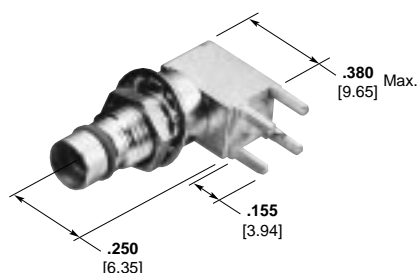


Right-Angle Jack

Stainless Steel Body, Gold Plated
Part No. 221790-1

For Complete Product Information, Order Catalog 82074

Blind Mate Connectors

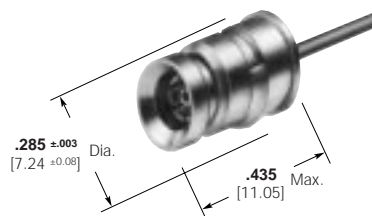
3.5 mm
Right-Angle PC Board
Bulkhead Jack

Part No. 448089-1

Note: See customer print or Catalog 82074 for recommended panel cutouts.

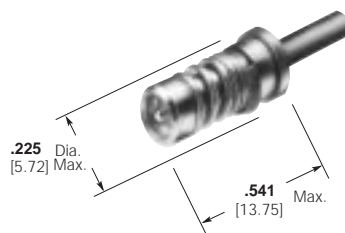
2.8 mm Floating Plug

Materials and Finishes

Center Contact — Beryllium copper, gold plated**Outer Shell** — Stainless steel, passivated**Inner Shell** — Beryllium copper, gold plated**Dielectric** — TEFLON**Grip Ring** — Beryllium copper or brass, nickel plated**Spring** — Steel wire**Retaining Clip** — Beryllium copper, nickel plated**Shroud** — Beryllium copper, nickel platedRG-405 Semi-Rigid Cable - Part No. 413012-1
.047 [1.19] Semi-Rigid Cable - Part No. 413025-1**Note:** See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.

Jack

Materials and Finishes

Sleeve and Grip Ring — Brass, nickel plated**Retaining Clip** — Beryllium copper, nickel plated**Shell and Contact** — Beryllium copper, gold plated**Dielectric** — TEFLON**Application Tool** — 59980-1
(Requires Die Set and Locator, see table for part numbers)**Trimmer Tool** — 312317-1**Cable Dressing Fixture** — 311395-1**Note:** All the above tools are included in Hand Tool Kit No. 59981-1 listed in the table.RG-405 Semi-Rigid/.086 Cable
Part No. 413249-1

Connector Cable Range Selection Code ¹	RG/U Cable	Connector Configuration	Part No.	Hand Tool Kit No. 59981-1	
				Die Set	Locator*
P	405 Semi-Rigid .086 [2.18]	Plug	413242-1	312253-2	852113-1
		Jack	413249-1	312253-2	852114-1

¹Refer to pages 463-464 for code specifications.

*Not included in Hand Tool Kit No. 59981-1; must be purchased separately.

For Complete Product Information, Order Catalog 82074

SMB Connectors, 50 Ohm

Plugs

Mil Type & Die Cast



RF Connectors (Continued)

Connector Cable Range Selection Code ¹	RG/U Cable	Center Contact Plating	Outer Contact Plating	Other Metal Parts Plating	Dielectric	Style	Part No.
A	178, 178A, 178B, 196, 196A	Gold	Gold	Gold	TEFLON	Mil Type	413985-5
		Gold	Gold	Nickel	TEFLON	Die Cast	414985-6
B	174, 316, 188, 188A	Gold	Gold	Gold	TEFLON	Mil Type	413985-1
		Gold	Gold	Nickel	TEFLON	Mil Type	413985-3
		Gold	Gold	Nickel	TEFLON	Die Cast	414946-1
		Gold	Gold	Gold	TEFLON	Mil Type	413985-0
B1	179, 179A, 179B 161, 187, 187A, Belden 9221	Gold	Gold	Nickel	TEFLON	Mil Type	1-413985-1
		Gold	Gold	Nickel	TEFLON	Die Cast	1-414946-5

¹Refer to pages 463-464 for code specifications.

Right-Angle Plugs



Mil Type

Zinc Die Cast

Connector Cable Range Selection Code ¹	RG/U Cable	Center Contact Plating	Outer Contact Plating	Other Metal Parts Plating	Dielectric	Style	Part No.
B, B1	174, 316, 188, 188A, 179, 179A, 179B 161, 187, 187A Belden 9221	Gold	Gold	Gold	TEFLON	Mil Type	414002-1
		Gold	Gold	Nickel	TEFLON	Mil Type	414002-3
		Gold	Gold	Nickel	TEFLON	Zinc	414363-3
		Gold	Nickel	Nickel	TEFLON	Zinc	414363-5
B3	RD 316, 188 Double Braid	Gold	Gold	Nickel	TEFLON	Zinc	414363-4
		Gold	Nickel	Nickel	TEFLON	Zinc	414363-6

¹Refer to pages 463-464 for code specifications.

Bulkhead Jack Adapter (Jack-Jack)

Type	Center Contact Plating	Body Plating	Dielectric	Style	Part No. (Figure C)
Jack-To-Jack	Gold	Nickel	TEFLON	Mil Type	228553-1

Note: See customer print or Catalog 82074 for recommended panel cutouts.



PC Board Jacks and Plug

Type	Center Contact Plating	Body Plating	Dielectric	Style	Part No.
Vertical Jack	Gold	Nickel	TEFLON	Commercial	221111-1
	Gold	Gold	TEFLON	Mil Type	413990-1
	Gold	Nickel	TEFLON	Mil Type	413990-2

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Vertical Commercial



Vertical Mil Type

Type	Center Contact Plating	Interface Body Plating	PCB Leg Plating	Dielectric	Style	Part No.
Right-Angle With Standoff Pads (Jack)	Gold	Nickel	Nickel	TEFLON	Mil Type	414026-3
	Gold	Nickel	Tin-Lead	TEFLON	Mil Type	414026-6
Plug	Gold	Gold	Ni./Tin-Lead	TEFLON	Zinc	414338-1 ¹
Bulkhead Jack	Gold	Gold	Gold	TEFLON	Zinc	414963-1

¹Body is Nickel Plated, legs are Tin-lead Plated.

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Right Angle Mil Type w/ Standoff Pads (Jack)



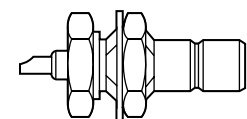
Bulkhead Jack

Bulkhead Jack Receptacles, Solder Pot

Type	Center Contact Plating	Body Plating	Dielectric	Style	Part No.
Rear Mount	Gold	Nickel	TEFLON	Mil Type	228215-1 ¹

¹Includes Jam Nut and Lockwasher

Note: See customer print or Catalog 82074 for recommended panel cutouts.



SMB Connectors, 75 Ohm

Straight and Right-Angle Plugs



Straight Plug



Right-Angle Plug

Connector Cable Range Selection Code ¹	RG/U Cable	Center Contact Plating	Outer Body Plating	Outer Contact Plating	Dielectric	Style	Straight Plug Part No.	Right-Angle Plug Part No.
B1	179, 179A, 179B 161, 187, 187A Belden 9221	Gold	Gold	Nickel	TEFLON	Commercial	—	414048-6
		Gold	Gold	Gold	TEFLON	Mil Type	—	—
		Gold	Nickel	Nickel	TEFLON	Commercial	414618-2	—

¹Refer to pages 463-464 for cable code specifications.

For Complete Product Information, Order Catalog 82074

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

SMB Connectors, 75 Ohm

(Continued)

PC Board Jacks

RF Connectors (Continued)

Type	Center Contact Plating	Body Plating	Dielectric	Style	Part No.
Vertical	Gold	Nickel	TEFLON	Mil Type	414244-1
Vertical	Gold	Nickel	TEFLON	Mil Type	414244-4
Right Angle	Gold	Nickel	TEFLON	Commercial	221014-1

Note: See customer print or Catalog 82074 for recommended panel cutouts.

Vertical



Right-Angle

SMB Connectors, Mini 75 Ohm

Mini Straight Plug

Description	RG Cable/ Leg Length	Center Contact Plating	Outer Contact Plating	Body Plating	Part No.
Straight Plug	179, 187	Gold	Gold	Nickel	415487-1

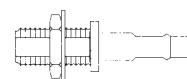


Miniature Threaded Connectors

Plug and Jack



Plug



Jack

Connector Cable Range Selection Code ¹	RG/U Cable	Plugs		Jacks TEFLON Dielectric	Integral Die Hand Tool	Die Inserts for Tools: Hand Tool 69710 Pneu. Tool 69365-2
		Polypropylene Dielectric	TEFLON Dielectric			
A	178, 178A, 178B 196, 196A	—	2-330311-2	2-330312-2	69188-1	69372
B	174, 316 188, 188A	2-329036-1	2-330311-1	2-330312-1	45609	69228-1
B1	179, 179A, 179B, 187, 187A 161, Belden 9221	2-329036-1	2-330311-1	2-330312-1	45609	69228-1
C1	180, 180A, 180B 195, 195A	—	1-330723-0	1-330599-0	69143	69229-1

¹Refer to pages 463-464 for specifications.**Note:** See customer print or Catalog 82074 for recommended panel cutouts.

Twin BNC Connectors

Plugs



RG/U Cable	Center Contact Plating	Body Plating	Dielectric	Part No.	Integral Die Hand Tool
108, 108A Belden 9272, 89272	Silver	Silver	TEFLON	332225	69667
	Silver	Nickel	Polypropylene	332225-5	
Trompeter TWC-124-2	Silver	Silver	TEFLON	332225-3	69667
ROLM 49D2401 Raychem 7824D0130	Silver	Nickel	Polypropylene	332225-6	69667

Bulkhead Jack



RG/U Cable	Center Contact Plating	Body Plating	Dielectric	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Integral Die Hand Tool	Die Insert for Tools: Hand Tool-69710-1, 626 Pneu. Head 318161-1
108, 108A Belden 9272, 89272	Silver	Silver	TEFLON	332342	—	69667	69708

Note: See customer print or Catalog 82074 for recommended panel cutouts.Right-Angle
PC Board/
Panel Mount Jacks

Material

Body — VALOX, White

Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.With Mounting Posts
Part No. 228686-1**BLUE** part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

Twin BNC Connectors

Vertical
PC Board/
Panel Mount Jacks

Material

Body — VALOX, White

Note: See customer print or Catalog 82074 for recommended panel cutouts and PC board layouts.



With Mounting Posts
Part No. 221198-1

Lockwasher and Jam Nut



Part No.
1-329632-2



Part No.
1-329631-2

Miniature Contacts

Material

Outer Shell — Brass per MIL-C-50

Center Conductor — Brass per QQ-B-626

Inner Dielectric — Polypropylene, general purpose

Retention Spring — Beryllium copper per QQ-C-533

Ferrule — Copper per QQ-C-576

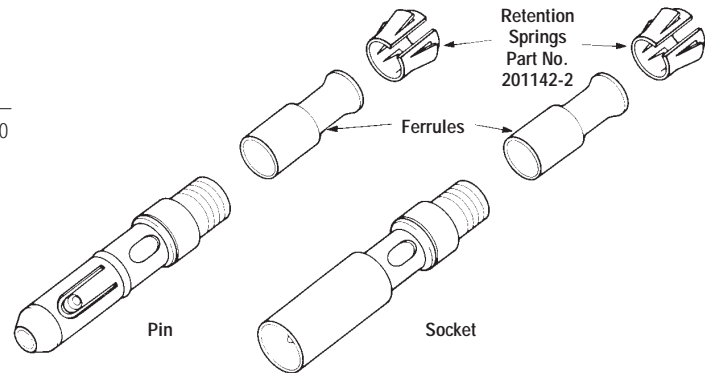
Finish

Outer Shell, Center Conductor — .000030 [0.00076] gold over .000030 [0.00076] nickel

Retention Spring — Nickel per QQ-N-290

Ferrule — Bright tin-lead per MIL-T-10727

Note: A ferrule and retention spring (201142-2) are required for each pin and socket.
Extraction Tool No. 305183-8



Connector Cable Range Selection Code ¹	RG/U Cable	Part Numbers		Ferrule No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool 69710-1 Pneu. 69365-2, 69365-3 ²
		Pin	Socket			
A	178, 178A, 178B 196, 196A	201511-1	201512-1	328667	69186-2	69373
B	316, 188, 188A 174	201143-5	201144-5	328666	45638-2	69227-2
B1	179, 179A, 179B 161, 187, 187A Belden 9221	201143-1	201144-1	328666	45638-2	69227-2
B3	188 Double Braid 316 Double Braid	201143-5	201144-5	221848-3	58290-1	69227-2
C	122	201145-1	—	328664	45639-2	69222-2
C1	180, 180A, 180B 195, 195A, 21-597	201145-2	201146-2	328664	45639-2	69222-2
C3	Belden 8218	201145-2	201146-2	328664	45639-2	69222-2
D	58, 58A, 58B, 58C	201145-4	201146-4	328663	45740-2	69220-2
D1, E	141 55, 55A, 55B, 223	201145-4	201146-4	330478	69248-4	69315-4
G	124, 140, 210 62, 62A, 62B 59, 59A, 59B	201097-1 ²	201098-1 ²	329006	—	69675-1
Twisted Pair						
—	28-26 AWG [0.08-0.15 mm ²] (Solid) ³	201511-1	201512-1	328667	69186-2	69373
—	24-22 AWG [0.2-0.4 mm ²] (Stranded) ⁴	201143-5	201144-5	328666	45638-3	69672
—	Shielded Wire 22, NAS-702, Class B	201145-4	201146-4	328663	45740-2	69220-2
—	Brand Rex T5788A 26 AWG [0.12-0.155 mm ²] ⁵	201145-2	201146-2	328664	45639-2	69222-2

¹Refer to pages 463-464 and 132 for page specifications.

²These contacts are for use in the 4-position G Series connector modules only.

³Maximum insulation diameter—.080 [2.03] (two wires combined).

⁴Maximum insulation diameter—.115 [2.92] (two wires combined).

⁵Includes bench mount and foot control; requires Manual Take-Up Attachment No. 69689.

⁶Dielectric O.D.—.106 [2.69] max.; Cable O.D.—.160 [4.06].

For Complete Product Information, Order Catalog 82074

Miniature PC Board Sockets

Material

Shell and Center Contact — Brass
per MIL-C-50 and QQ-B-626

Dielectric — VALOX DR48

Finish

Center Contact — .000030 [0.00076]
gold over copper

Shell — Gold plated per MIL-G-45204

Performance Characteristics

Dielectric Withstanding Voltage —
1,000 volts, rms

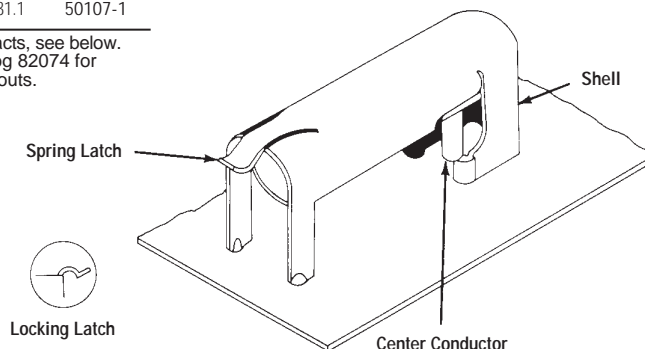
Impedance — Non-constant

Operating Temperature Range —
-55°C to +85°C

RF Connectors (Continued)

Type	PC Board Thickness	Retention		Part No.
		lb.	[N]	
Spring Latch	.062 1.57	1.25	5.56	50084-1
Locking Latch	.062 1.57	7	31.1	50107-1

Notes: 1. For mateable Miniature Contacts, see below.
2. See customer print or Catalog 82074 for recommended PC board layouts.



Subminiature PC Board Sockets

Material

Shell and Center Contact — Brass
per MIL-C-50 and QQ-B-626

Dielectric — TPX

Finish

Center Contact — .000030[0.00076]
gold per MIL-G-45204 over copper per
MIL-C-14550

Shell — Gold

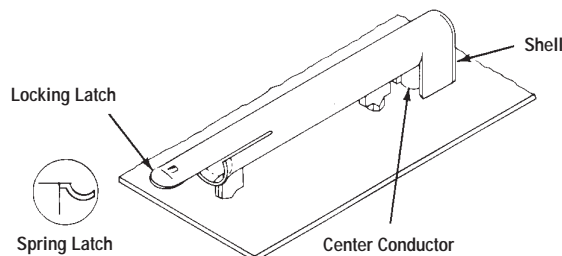
Performance Characteristics

Dielectric Withstanding Voltage —
600 volts, rms

Operating Temperature Range —
-55°C to +85°C

Type	PC Board Thickness	Part No.
Spring Latch	.062 1.57	226023-1
Locking Latch	.062 1.57	226060-1

Note: See customer print or Catalog 82074 for recommended PC board layouts.



Mating Subminiature COAXICON Pins

These short Subminiature COAXICON Pins are recommended for use with any of the sockets listed above.

Note: Alignment springs are not required for this application and are not included with the pin assemblies.



Connector Cable Range Selection Code ¹	RG/U Cable	Part No.	Ferrule No.	Integral Die Hand Tool	Die Insert for Tools: Hand Tool 69710-1 Pneu. 69365-2, 69365-3
B1	179, 179A, 179B 187, 187A	51563-8	1-332056-0	69656-1	69690-1

¹Refer to pages 463-464 for code specifications.

For Complete Product Information, Order Catalog 82074

Subminiature Contacts

Material

Outer Shell — Brass per MIL-C-50

Center Conductor — Beryllium copper per QQ-C-533 (Pin);
Brass per QQ-B-626 (Socket)

Inner Dielectric — TPX

Retention Spring — Stainless steel per QQ-S-766

Ferrule — Copper per QQ-C-576

Finish

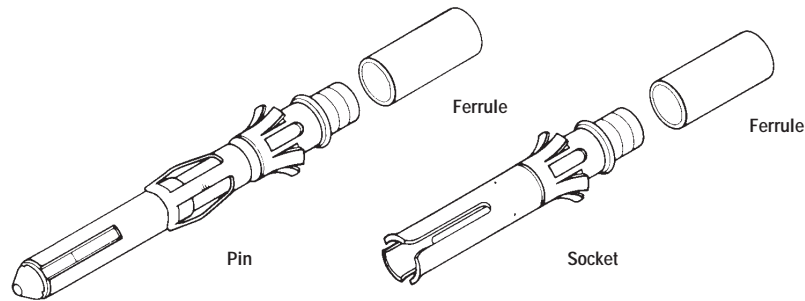
Outer Shell and Socket

Center Conductor — .000030
[0.00076] gold over .000050 [0.00127]
nickel

Pin Center Conductor — .000030
[0.00076] gold over
.000100 [0.00254] copper

Ferrule — Bright tin-lead per
MIL-T-10727

RF Connectors (Continued)



Selection Chart for Coaxial Cable

Connector Cable Range Selection Code ¹	RG/U Cable	Contact Part Numbers				Integral Die Hand Tool	Die Insert for Tools: Hand Tool 69710-1 Pneu. Tool 69365-2, 69365-3 ²
		Multimate Pin	Short Pin	Socket	Ferrule		
A	178, 178A, 178B 196, 196A	226537-2	—	51565-2	1-332057-0	69656-2	69690-2
—	196 (Double Braid)	226537-2	—	51565-2	225088-1	69656-9	—
B	174, 316 188, 188A	226537-1	—	51565-1	1-332056-0	69656	69690
B1	179, 179A, 179B 187, 187A Belden 9221	226537-1	—	51565-1	1-332056-0	69656-1	69690-1
B3	RD-316	226537-1	—	51565-1	225088-3	69656-7	—
—	187 (Double Braid)	226537-1	—	51565-1	225088-1	69656-8	—
—	161	226537-1	—	51565-1	1-332056-0	69656-5	—

Selection Chart for Twisted Pairs and Shielded Wire

Wire Size		Contact Part Numbers				Integral Die Hand Tool	Die Insert for Tools: Hand Tool 69710-1 Pneu. Tool 69365-2, 69365-3 ²
AWG	[mm ²]	Multimate Pin	Short Pin	Socket	Ferrule		
30 (Twisted Pair, Solid)	0.05	226537-3	—	—	1-332057-0	69656-2	69690-2
28 (Twisted Pair, Solid)	0.08-0.09	226537-3	—	—	1-332057-0	69656	69690
28 (Twisted Pair, Stranded; 7 str., .005 [0.13] Dia.)	0.08-0.09	226537-3	—	—	1-332057-0	69656-1 or 69656-2	69690-1 or 69690-2
26 (Twisted Pair, Solid or Stranded; 7 str., .0063 [0.16] Dia.)	0.12-0.15	226537-3	—	—	1-332057-0	69656	69690
26 (Shielded, 0.75 [1.91] Max. O.D.)	0.12-0.15	226537-1	—	51565-1	1-332057-0	69656-3	69690-3

¹Refer to pages 463-464 for code specifications

²Includes bench mount and foot control.

Extraction Tool 305183

Note: A ferrule is required for each pin and socket

Size 8 Contacts

Performance Characteristics

Frequency Range — 0 to 500 MHz

Operating Voltage, Max. —
275 vac rms @ sea levelTermination Resistance, Max. —
Center Contact — 6.0 milliohms
Outer Contact — 3.0 milliohmsInsulation Resistance, Min. —
5,000 megohms @ 500 vdcDielectric Withstanding Voltage —
Sea Level — 800 Volts rms
30,000 ft [9,144 m] — 525 volts rms
70,000 ft [21,336m] — 275 volts rms

VSWR to 500MHz, Max.

Pin/Socket	VSWR
Straight/Straight	1.30
Right-Angle/Straight	1.35
Right-Angle/Right-Angle	1.40

Straight Contacts

RF Connectors (Continued)

RF Crosstalk — 90dB @ 5-500 MHz

Mating Force, Max. — 4.0 lb
[17.8 N]Unmating Force, Min. — 2.0 oz
[0.556 N]

Contact Retention — 20 lb [89 N]

Contact Durability — 500 cycles

Cable RG/U	Force	
	lb	[N]
316, 188, 174, 179, 179A, 179B	20	89
188-type Double-Braid	35	155.8
142, 142A, 142B	50	222.5

Operating Temperature — 55°C to
+125°CThermal Shock — 55°C to +125°C per
MIL-STD-1344, Method 1003, Cond. APhysical Shock — 50 G's per MIL-
STD-1344, Method 2004, Cond. AVibration — MIL-STD-1344, Method
2005, Cond. IIMoisture Resistance — 240 hours
per MIL-STD-1344, Method 1002,
Cond. IISalt Fog — 48 hours per MIL-STD-
1344, Method 1001, Cond. B

Extraction Tool Numbers

Subminiature D Housings —
58095-1 (AMPLIMITE)

AMP-HDI Housings — 58095-2

Related Catalogs

Subminiature D Housings 82069
AMP-HDI 82618

Material

Brass — per QQ-B-626 and MIL-C-50

Phosphor Bronze — per QQ-B-750

Beryllium Copper — per QQ-C-530

TEFLON — per MIL-P-19468

Nylon — per MIL-M-20693

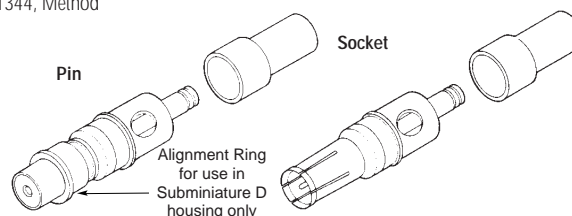
Finish

Bright Tin-Lead Plating — per
ASTM-B-571

Copper Plating — per MIL-C-14550

Gold Plating — per MIL-G-45204

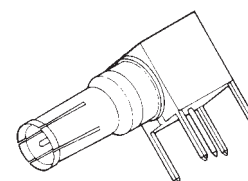
Nickel Plating — per QQ-N-290



Cable Range Selection Code ¹	RG/Cable	Shell Type	Dimensions		50 ohm		Non-Impedance Match		Die ² Insert
			A	B	Pin	Socket	Pin	Socket	
A	178, 178A, 178B, 196, 196A	Brass	0.950 24.13	0.235 5.94	228618-5	228596-5	—	—	59993-1
		Diecast	—	—	—	—	—	—	—
B	174, 316, 188, 188A	Brass	0.956 24.28	0.234 5.94	228618-1	228596-1	221980-1	221981-1	59993-1
		Diecast	0.956 24.28	0.234 5.94	415367-1	415366-1	415369-1	415368-1	59993-1
B1	179, 179A, 179B, 187, 187A, 161, Belden 9221	Brass	0.956 24.28	0.234 5.94	228618-2	228596-2	221980-3	221981-3	59993-1
		Diecast	0.956 24.28	0.234 5.94	—	—	415369-3	415368-3	59993-1
B3	174, 316, 188, Double Braid	Brass	0.956 24.28	0.234 5.94	228618-3	228596-3	—	—	59993-1
		Diecast	0.956 24.28	0.234 5.94	415367-2	415366-2	415369-2	415368-2	59993-1
E1	142, 142A, 142B, 400, Belden 9246	Brass	1.080 27.43	0.255 6.48	228618-4	228596-4	221980-2	221981-2	58212-1
		Diecast	—	—	—	—	—	—	—

¹Refer to pages 463-464 for code specifications.²For hand tool 69710-1 or pneumatic tool 69365-8.**Note:** Non-Impedance Matched and 50 Ohm are not intermatable.PC Board Mount
Contacts

Type	Contact Part Numbers Non-Impedance Matched
Right-Angle Socket Contact	221162-1

Note: See customer print or Catalog 82074 for
recommended PC board layouts.

Right-Angle Socket Contact

BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 82074

RF Connectors (Continued)

Drop Boxes**Drop Cable Length****Color** — Beige

Provides the capability to easily add Thinnet Taps (in series) to a network segment of a small office terminal cluster. Dust covers included.



4 Port
Part No. 413507-1 16 ft (4.88m)

For Complete Product Information, Order Catalog 82074

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Copper Cable Products

Table of Contents

Section Eleven: Copper Cable Products

499-504

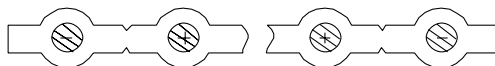
IDC Ribbon Cable, PVC Insulation500
IDC Ribbon Cable, FEP Insulation500
IDC Ribbon Cable, Color Coded, PVC Insulation501
IDC Ribbon Cable, Color Coded, Twisted Pair501
IDC Ribbon Cable, Round-to-Flat501
DATA LAN UTP Cables502
DATA LAN Enhanced Cables502
DATA LAN FTP Cables503
DATA LAN S-FTP Cables503
DATA LAN Multipair Backbone503
DATA LAN Undercarpet Cabling503

For Complete Product Information, Order Catalog 65755

IDC Ribbon Cables

Copper Cable Products (Continued)

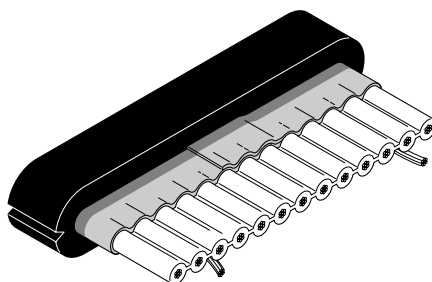
PVC Insulation



Centerline Spacing	Wire Size	Description	Length per Reel	No. of Conductors	Part Number
.050 [1.27]	26 AWG	Stranded Tinned Copper	500 ft.	40	1-57034-4
		Overcoated Stranded Tinned Copper	250 ft.	4	642004-4
	24 AWG			5	642049-5
		Stranded Tinned Copper	250 ft.	10	1-642049-0
.100 [2.54]	24 AWG			12	1-642049-2
				5	642068-5
	22 AWG	Stranded Tinned Copper	250 ft.	8	642068-8
				4	642099-4
.156 [3.96]	18 AWG	Stranded Tinned Copper	250 ft.	4	642099-4

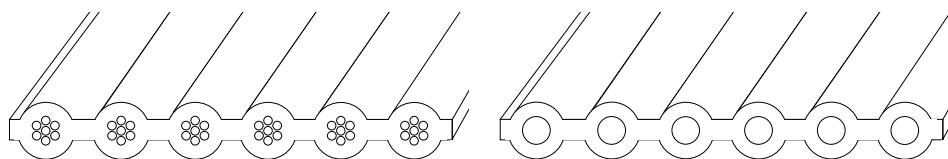
PVC Insulation
Shielded/Jacketed

Centerline Spacing — 0.50 [1.27]



No. of Conductors	Length per Reel	Part Number
15	100 ft.	1-57646-5
20	100 ft.	2-57646-0
25	100 ft.	2-57646-5
26	100 ft.	2-57646-6
34	100 ft.	3-57646-4

FEP Insulation



Stranded

Solid

Wire Size	No. of Conductors	Description	Color	Part Number
30 AWG	40	7-Strand Unplated Copper	Blue/Gray	57288-2
	68	NEW 7-Strand Tin Plated	Blue/Gray	57289-5
		NEW Solid Tin Plated	Blue/Gray	57145-5

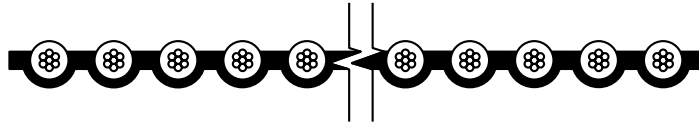
For Complete Product Information, Order Catalog 65755

IDC Ribbon Cables

Copper Cable Products (Continued)

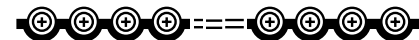
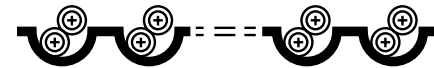
Color Coded, PVC Insulation
AMP CODE 10

Centerline Spacing — .050 [1.27]

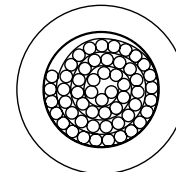
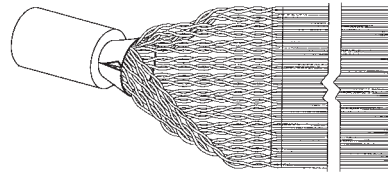
Part Number 5-57643-0
50 Conductors, 100 ft. per ReelColor Coded, Twisted Pair
PVC Insulation
AMP-TWIST

Centerline Spacing — .050 [1.27]

No. of Twisted Pairs	Length of Twisted Pair	Length per Reel	Part Number
17	18 in.	100 ft.	1-57641-7
25	18 in.	100 ft.	2-57641-5

Round-To-Flat
AMP-TWIST

Centerline Spacing — .050 [1.27]



Description	No. of Twisted Pairs	Length per Reel	Part Number
Unshielded Color Coded	13	100 ft.	1-57648-3
Shielded Color Coded	20	100 ft.	2-57647-0
	25	100 ft.	2-57647-5

For Complete Product Information, Order Catalog 65755

DATA LAN Cables

UTP Cables
Category 3
24 AWG 100 Ohm

Copper Cable Products (Continued)

Description	Part Numbers			
	white	grey	blue	yellow
4-Pair	57240-1	—	—	—
	—	57240-6	57240-4	—
	57241-1	—	57241-3	—
	57241-2	57241-6	57241-4	—
25-Pair Powersum	—	57242-1	—	—



UTP Cables
Category 5
24 AWG 100 Ohm

Description	Part Numbers			
	white	grey	blue	yellow
4-Pair	57248-2	57248-4	57248-6	57248-8
	57248-1	57248-3	57248-5	—
	—	6-57248-4	—	—
	57249-2	—	57249-6	—
	57249-1	—	57249-5	—
	6-57249-2	—	6-57249-6	—
4-Pair Metric	57819-1	—	—	—
	57819-2	—	—	—
4-Pair Metric LSZH Jacket	—	—	57693-2	—
4-Pair Stranded	57254-2	57254-4	—	—
	—	57254-3	—	—
4-Pair Stranded Metric	57821-2	—	—	—
25-Pair Powersum	57814-1	57814-2	—	—
Dual (Siamese) 4-Pair x 4-Pair	57279-1	—	—	—



Enhanced Cables
Category 5
24 AWG 100 Ohm

Description	Part Numbers			
	white	grey	blue	yellow
4-Pair Enhanced	57825-2	57825-4	57825-6	57825-8
	57825-1	57825-3	57825-5	—
	57826-2	57826-4	57826-6	57826-8
	57826-1	—	—	—
4-Pair Enhanced Metric	57535-2	—	—	—



For Complete Product Information, Order Catalog 1242002

DATA LAN Cables

Copper Cable Products (Continued)

FTP Cables

Description	Part Numbers			
	white	grey	blue	yellow
4-Pair	—	57253-3	—	—
	57252-1	57252-3	—	—
4-Pair Metric	57820-1	57820-4	—	—
	57820-2	—	—	—
4-Pair Metric LSZH Jacket	—	—	57695-1	—
	—	—	57695-2	—
4-Pair Stranded	57255-1	57255-3	—	—
4-Pair Stranded 26GA Metric	57822-2	—	—	—
Dual (Siamese) 4x4 Metric LSZH Jacket	—	—	57697-1	—

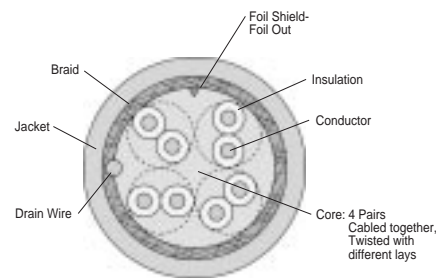


S-FTP Cables

4-Pair Metric LSZH Jacket

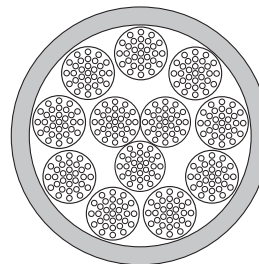
Part Number 57827-1

White

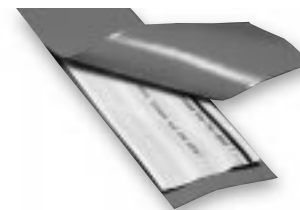


Multipair Backbone Category 3 24 AWG 100 Ohm

Description	Part Number
	grey
50-Pair	57313-1
100-Pair	57315-1



Undercarpet Cabling



Description		Part Number
Data	Voice	554056-5
	CAT 5	557874-1
	Type 8	554681-1
Power	3 COND. 12 AWG	3-553079-1
	5 COND. 12 AWG	3-553239-1

For Complete Product Information, Order Catalog 1242002

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Rack and Panel Connectors

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Section Twelve: Rack and Panel Connectors **505-508**

CR Connector Systems, Zero Insertion Force. 506-507

M-ZIF Connectors 507

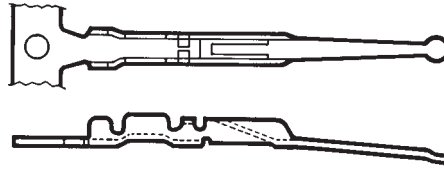
CR Connectors

Crimp Snap-In Contacts

Material and Finish

Contacts — Copper alloy, gold plated per MIL-G-45204 over nickel plate per QQ-N-290

Finish — .000030 [0.000762] selectively plated gold over .000050 [0.00127] nickel.



Wire Size	Insulation Dia. Max.	Loose Piece Contacts	Hand Tool	Quick Change Applicator	Applicator for AMP-O-MATIC Stripper-Crimper
24-20 AWG 0.2-0.5 mm ²	.049 1.25	66750-3	90416-1	567163 ¹	466971-1

¹Base number can have one or two dash numbers: -1 refers to applicator for AMPOMATOR Machine; -2 refers to applicator AMP-O-LECTRIC machine.

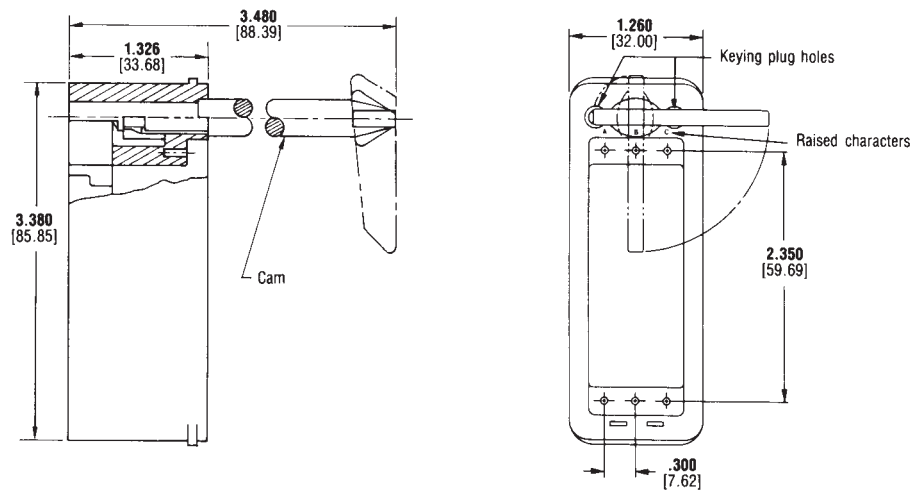
120-Position Plug Assembly Kit (Crimp Snap-In)

Part No. 207226-1

Includes housing, strain relief (Part No. 206540-1), cam, two keying plugs, cable clamps, all screws required and three modules for crimp snap-in contacts. Order contacts separately. (See page above)

Material and Finish

Housings — Glass-filled thermoplastic, 94V-0 black

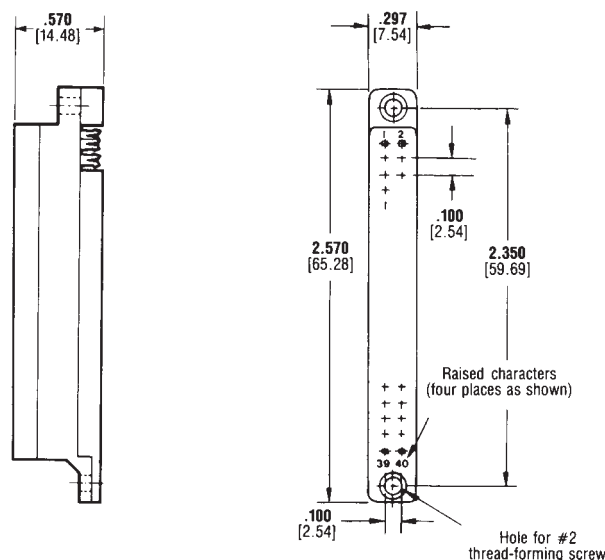


120-Position Receptacle Assembly Ribbon Cable Contact Module

Part No. 208498-1

Material and Finish

Housings — Glass-filled thermoplastic, 94V-0 black



For Complete Product Information, Order Catalog 82157

CR Connectors

156-Position Plug Assembly Plug Contact Module (Crimp Snap-In)

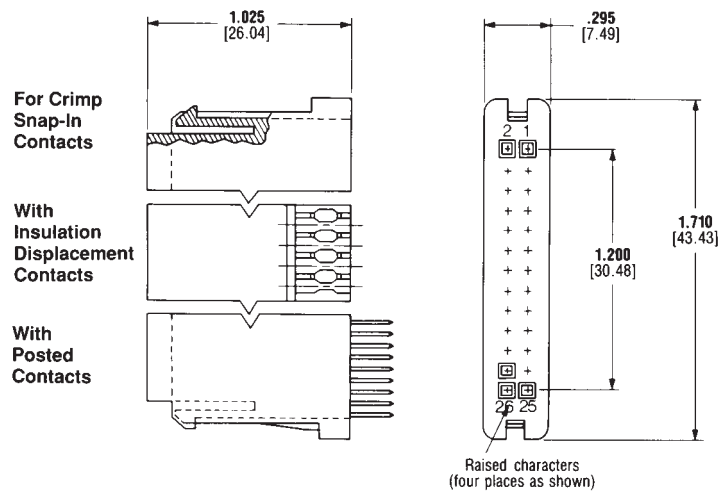
Part No. 206743-1

Each 156-position plug requires six contact modules. Order contacts separately. (See page 506)

Material and Finish

Housings — Glass-filled thermoplastic, 94V-0 black

Rack and Panel Connectors (Continued)



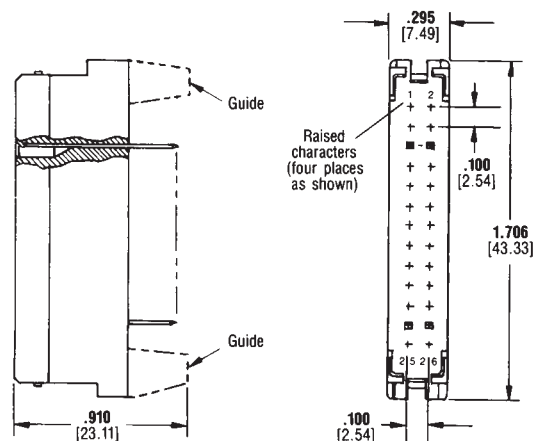
156-Position Receptacle Assembly Standard Module with .025 [0.64] Square Posted Contacts

.550 [13.97] Post Length —
Part No. 207256-1

Material and Finish

Housings — Glass-filled thermoplastic, 94V-0 black

Contacts — Copper alloy, gold plated per MIL-G-45204 over nickel plate per QQ-N-290



M-ZIF Connectors

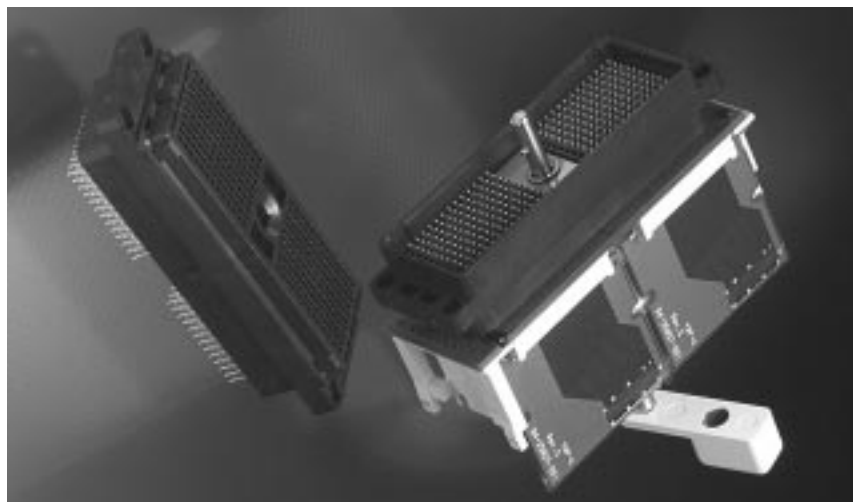
156-Position I/O ZIF Receptacle with 3.8 mm Solder Post

Part No. 353517-1

Material and Finish

Housing — UL94V-0

Contacts — Beryllium copper, plated .000050 [0.000127] gold in contact area, over .000050 [0.000127] nickel.



For Complete Product Information, Order Catalogs 82157 and 889277

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

High Voltage Connectors

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Section Thirteen: High Voltage Connectors **509-516**

LGH High Voltage Assemblies 510

LGH High Voltage Connectors 510-515

LGH High Voltage Assemblies & Connectors

Material and Finish

Lead Insulation — Silicone rubber, durometer reading 60 to 70, white

Conductors — Per MIL-W-16878: LGH 1/2I, LGH 1/2LI, LGH 1I and LGH 1LI lead assemblies contain 41 strands minimum of 32 AWG [0.03 mm²] wire, silver plated to compose a 16 AWG [1.25 mm²] stranded conductor .06 nom. O.D. [1.5]; LGH 4I lead assemblies contain 19 strands minimum of 29 AWG [0.07 mm²] wire, silver plated to compose a 16 AWG [1.25 mm²] stranded conductor .06 nom. O.D. [1.5]. Silver plating is per ASTM-B298-58T.

Pigtail — Solder dipped

Socket — Bronze per ASTM-140, alloy B, gold plated per MIL-G-45204, Type II. (.000030 [0.00076] gold over .000030 [0.00076] nickel per QQ-N-290). Socket is crimped to lead wire.

Cap Materials — Type A polycarbonate per LP393; Type B glass-filled polyester per MIL-M-24519; Type C molded glass epoxy per MIL-M-24325 (ships) GEI-5.

Molded End — Silicone rubber per ZZ-R-765, Class IIa and IIb, grade 60.

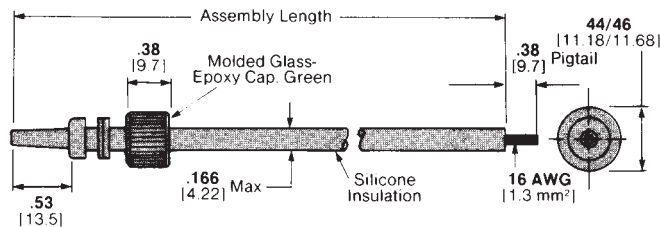
Positive Stop Ferrule — Glass-filled polyester per MIL-M-24519.

Washer — TFE, electrical grade per MIL-P-19468

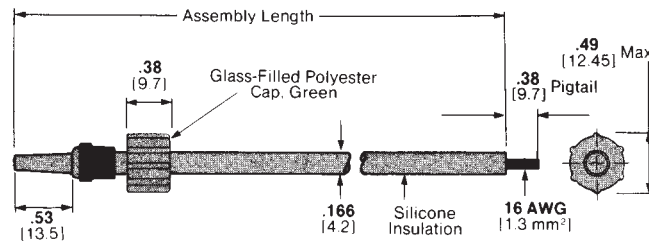
Marking — Per MIL-STD-130

Lead Assemblies, 10 KVDC, LGH 1/2I — Single End

Length 24 in. [609.6 mm]
Part No. 830611-1



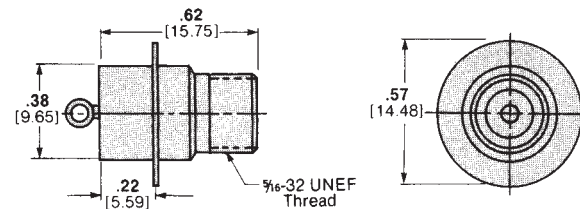
Lead Assemblies, 10 KVDC, LGH 1/2I — Single End with Positive Stop Ferrules



Assembly Length	Part Number
6 152.4	862545-1
18 457.2	862545-6

Receptacles, 10 KVDC, LGH 1/2I, Glass Epoxy with .53 [13.46] Barrel Depth — Flanged for Hermetic Seal

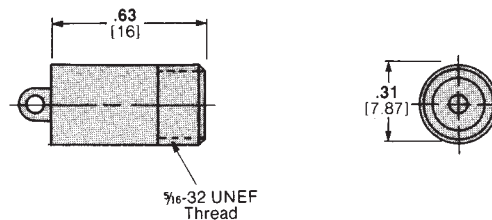
Part No. 861252-1



For use with RFI shielded leads.

Receptacles, 10 KVDC, LGH 1/2I, Glass Epoxy with .53 [13.46] Barrel Depth — For Encapsulated Units

Part No. 830178-1



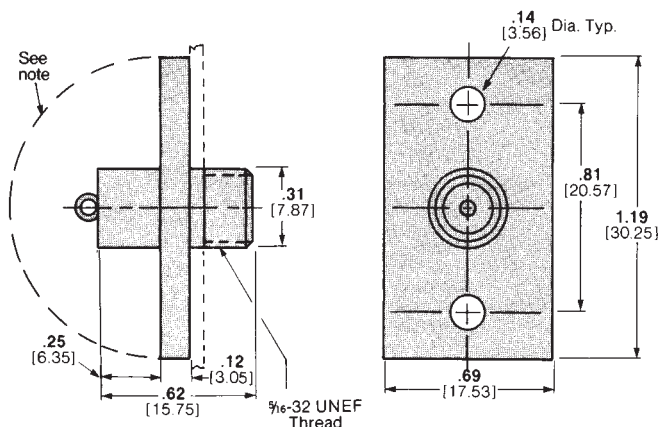
For Complete Product Information, Order Catalog 82024

LGH High Voltage Connectors

Receptacles, 10 KVDC, LGH
1/2I, Glass Epoxy with .53
[13.46] Barrel Depth —
Flanged Bolt Mount

Part No. 830395-1

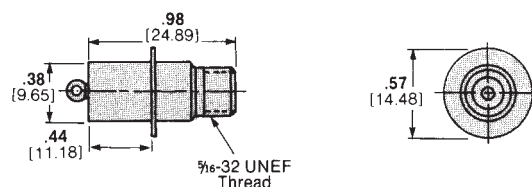
High Voltage Connectors (Continued)



If the panel or mounting hardware is at ground potential, guard against arc-over and breakdown within the area defined by this line,

Receptacles, 15 KVDC, LGH
1/2LI, Glass Epoxy with .89
[22.61] Barrel Depth —
Flanged for Hermetic Seal

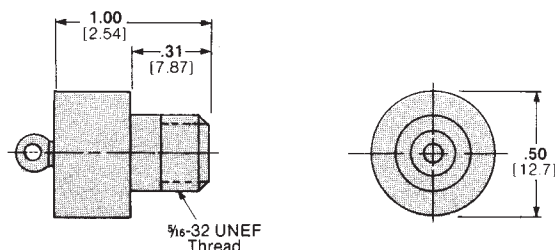
Part No. 861253-1



For use with RFI shielded leads.

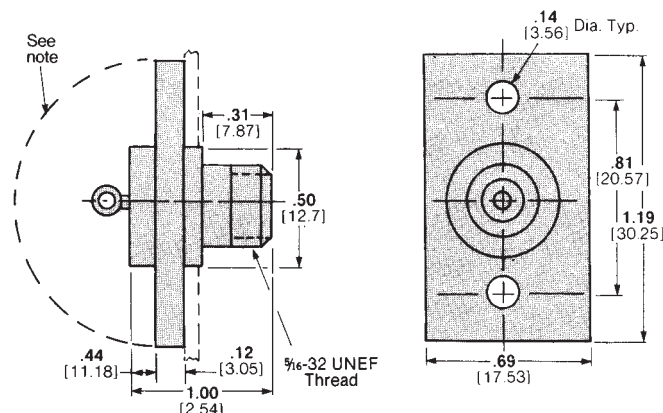
Receptacles, 15 KVDC, LGH
1/2LI, Glass Epoxy with .89
[22.61] Barrel Depth — For
Encapsulated Units

Part No. 858855-1



Receptacles, 15 KVDC, LGH
1/2LI, Glass Epoxy with .89
[22.61] Barrel Depth — Bolt
Mount

Part No. 858857-1



If the panel or mounting hardware is at ground potential, guard against arc-over and breakdown within the area defined by this line,

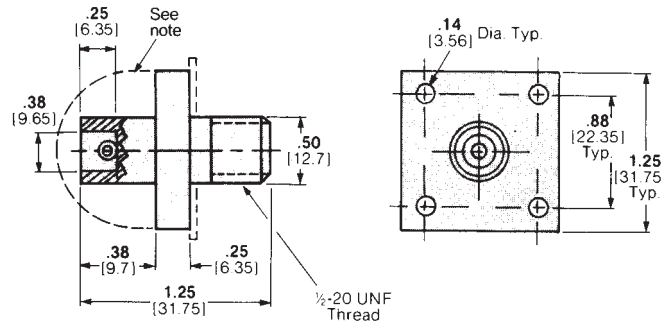
For Complete Product Information, Order Catalog 82024

LGH High Voltage Connectors

Receptacles, 20 KVDC, LGH 1I,
Glass Epoxy with .88 [22.35]
Barrel Depth — Flanged Bolt
Mount

Part No. 858827-1

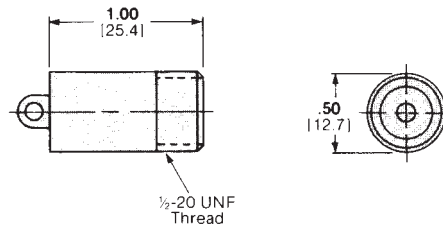
High Voltage Connectors (Continued)



If the panel or mounting hardware is at ground potential, guard against arc-over and breakdown within the area defined by this line,

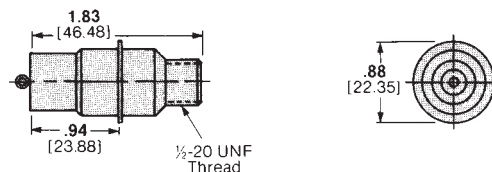
Receptacles, 20 KVDC, LGH 1I,
Glass Epoxy with .88 [22.35]
Barrel Depth — For
Encapsulated Units

Part No. 834333-2



Receptacles, 25 KVDC, LGH 1LI,
Glass Epoxy with 1.69 [42.93]
Barrel Depth — Flanged for
Hermetic Seal

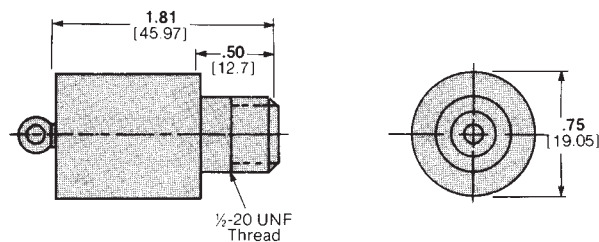
Part No. 861255-1



For use with RFI shielded leads.

Receptacles, 25 KVDC, LGH 1LI,
Glass Epoxy with 1.69 [42.93]
Barrel Depth — For
Encapsulated Units

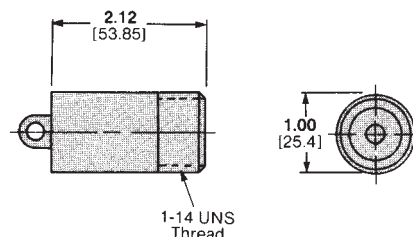
Part No. 858868-1



If the panel or mounting hardware is at ground potential, guard against arc-over and breakdown within the area defined by this line,

Receptacles, 50 KVDC, LGH 4I,
Glass Epoxy with 2.00 [50.8]
Barrel Depth — For
Encapsulated Units

Part No. 836567-1

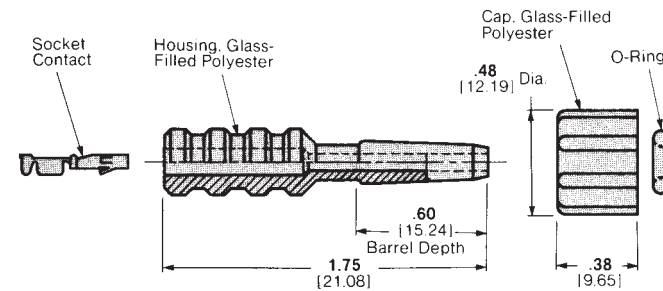


For Complete Product Information, Order Catalog 82024

LGH High Voltage Connectors

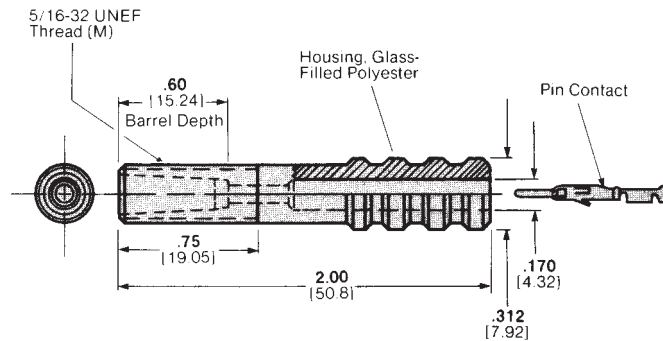
Commercial Single Line, 10 KVDC Connectors — Plug Kit 20-24 AWG [0.2-0.6 mm²] for .105 [2.66] Max. Insulation Diameter

Part No. 867157-2

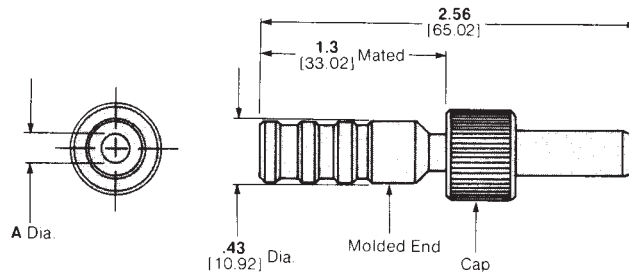


Commercial Single Line, 10 KVDC Connectors — Receptacle Kit 20-24 AWG [0.2-0.6 mm²] for .160 [4.06] Max. Insulation Diameter

Part No. 867156-1



Commercial Single Line, 20 KVDC Connectors — Plug Kit

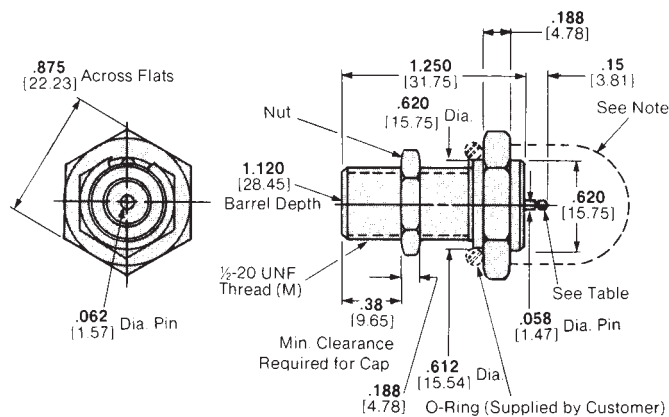


Dimension	Wire Size		Contact	Plug Kit
A	AWG	mm ²	Part Number	Part Number
.185 4.7	18-16	0.8-1.4	66100-2	861610-3
.302 7.67	18-16	0.8-1.4	—	861610-2

Commercial Single Line, 20 KVDC Connectors — Bulkhead-Mounted Receptacle Kit

Part No. 861611-1

If the bulkhead and mounting hardware are metal at ground potential, the back end of the receptacle must be protected against arc-over and breakdown.

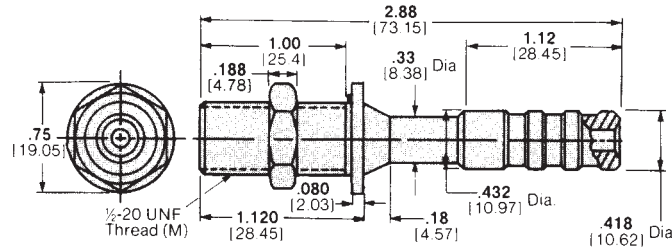


For Complete Product Information, Order Catalog 82024

LGH High Voltage Connectors

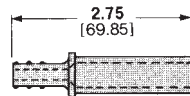
Commercial Single Line, 20 KVDC Connectors —
Receptacle Kit 18-16 AWG
[0.8-1.4 mm²] for .302 [7.67]
Max. Insulation Diameter

Part No. 862197-2



Two-Position, 10 KVDC
Connector — Plug Kit 18-16
AWG [0.8-1.4 mm²] for .090
[2.29] Bulkhead Thickness

Part No. 862383-2



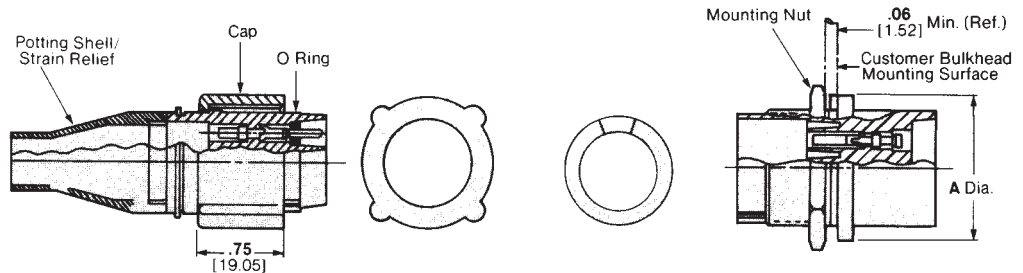
Circular, Multi-Pin, 27 KVDC Commercial Connectors

Material and Finish

Housing, Cap, Nut & Strain Relief — Glass reinforced polyester

O-ring — Silicone rubber

Contacts — AMP Type II, gold plated
per MIL-G-45204



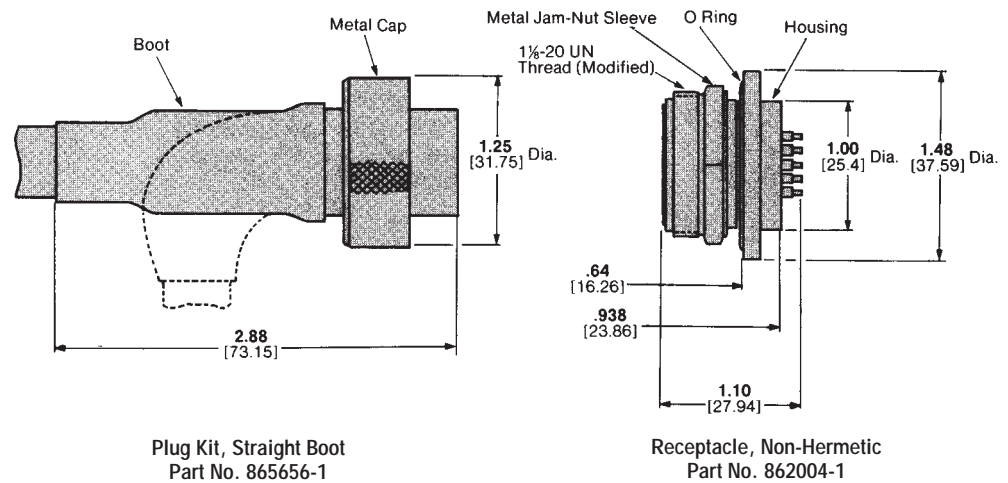
Number of Contacts	Wire Range		Part Numbers		
	AWG	mm ²	Receptacle Kit	Plug Kit with Strain Relief	Plug with Strain Relief & Receptacle Kit
4	24-20	0.2-0.6	859526-4	863022-1	—
	18-16	0.8-1.4	859526-5	—	—
7	24-20	0.2-0.6	861647-7	863024-1	863019-1
	18-16	0.8-1.4	861647-8	863024-2	—

Seven-Pin Circular, Metal Shell Military Connectors

Material and Finish

Interface — Glass epoxy and silicone rubber

Contacts — Size 20, gold plated



For Complete Product Information, Order Catalog 82024

LGH High Voltage Connectors

Six-Pin Subminiature Commercial Plug Assembly with 22 AWG Silicone

Part No. 867473-1

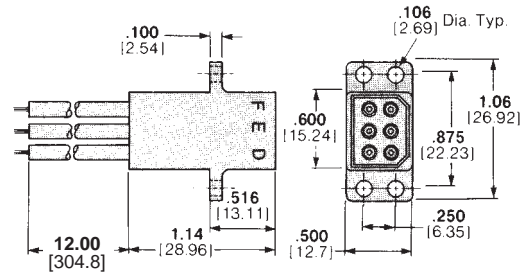
Material and Finish

Housing and Potting Shells— Glass-filled thoplastic polyester, flame retardant, black

Mounting Brackets — Carbon steel, nickel plated

Contacts — Beryllium copper, plated .000030 [0.00076] min. gold per MIL-G-45204 over .000030 [0.00076] min. nickel per QQ-N-290

High Voltage Connectors (Continued)



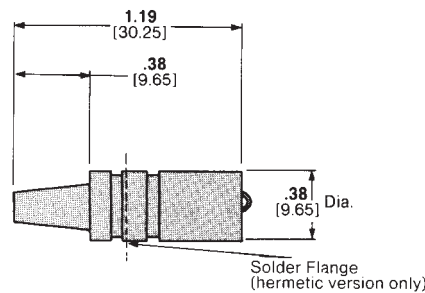
Rack and Panel Single Pin Plug, Standard

Part No. 859113-1

Material and Finish

Housing — Molded glass epoxy per MIL-M-24325 (Ships), GEI-5

O-Ring (Receptacle) — Silicone rubber



For Complete Product Information, Order Catalog 82024

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Miscellaneous Products

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Modular Interconnection System

Printed Circuit Board Jacks — Through-Hole Side Entry, Low Profile

Material and Finish

Housing — Through-Hole: Polyester, UL 94V-0 rated

Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

Miscellaneous Products (Continued)

Description	Contacts Loaded	Part Numbers		
		Tray Packed	Tube Loaded	(IR) Compatible
6-Position with Panel Stops	6	555163-1	555163-4	—
6-Position with Panel Stops	4	555163-2	—	—
6-Position without Panel Stops	6	555165-1	—	569026-1
6-Position without Panel Stops	4	555165-2	—	—
6-Position without Panel Stops	2	555165-5	—	—
8-Position without Panel Stops	8	555164-1	—	—
8-Position Keyed with Panel Stops	8	555166-1	—	—
8-Position Keyed without Panel Stops	8	555167-1	555167-3	—
8-Position Keyed without Panel Stops	6	—	—	569118-1

Notes:

1. On any modular jack, Terminal No. 1 is the terminal to the extreme left as you face the jack opening, tab notch down.
2. All jacks are wave solder compatible, unless otherwise noted.



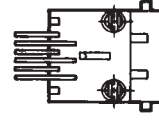
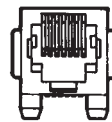
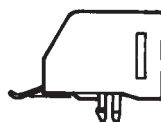
6-Position Jack

Printed Circuit Board Jacks — Surface Mount Side Entry, Low Profile

Material and Finish

Housing — Polyphenylene Sulfide, UL 94V-0 rated

Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate



6-Position Jack

Description	Contacts Loaded	Part Numbers	
		Tray Packed	Tube Loaded
6-Position with Panel Stops	6	555077-1	—
6-Position without Panel Stops	6	557314-1	—
8-Position with Panel Stops	8	555248-1	—
8-Position without Panel Stops	8	555764-1	555764-3
8-Position Keyed with Panel Stops	8	555078-1	—

Notes:

1. On any modular jack, Terminal No. 1 is the terminal to the extreme left as you face the jack opening, tab notch down.
2. All SMT Jacks are IR reflow processing compatible.

Printed Circuit Board Jacks — Through-Hole, Top Entry

Material and Finish

Housing — Polyester (wave solder compatible), UL 94V-0 rated

Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

Description	No. of Pos.	No. of Contacts	Jack Part Numbers	
			Tray Loaded	Tube Loaded
Top Entry with Panel Stops	4	4	520257-2	—
	6	4	520258-2	—
	6	6	520258-3	—
	8	8	520259-4	—
	8 Keyed	8	520260-4	—
Top Entry without Panel Stops	4	4	558872-1	—
	6	4	520425-2	—
	6	6	520425-3	—
	8	8	556416-1	556416-2
	8 Keyed	8	555799-1	—



4-Position Jack

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82066

Modular Interconnection System

Printed Circuit Board Jacks — Through-Hole, Shielded, Top Entry

Material and Finish

Housing — Polyester (wave solder compatible), UL 94V-0 rated
Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate



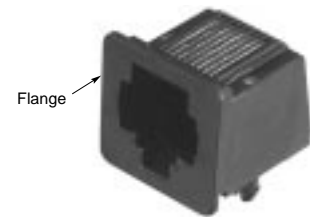
Description	No. of Pos.	No. of Contacts	Jack Part Number
Top Entry, Shielded with Panel Stops	8	8	557969-1
Top Entry, Shielded with Panel Stops, Keyed	8	8	557730-1

Printed Circuit Board Jacks — Through-Hole, Side Entry with Center Latch, Standard Height

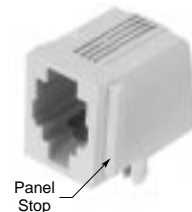
Material and Finish

Housing — Polyester (wave solder compatible), UL 94V-0 rated
Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

Description	No. of Pos.	No. of Contacts	Jack Part Numbers	
			Tray Loaded	Tube Loaded
Side Entry Flanged	4	4	520241-2	—
	6	4	520242-2	—
	6	6	520242-3	—
	8	8	520243-4	—
Side Entry with Panel Stops	4	4	520249-2	—
	6	2	520250-1	—
	6	4	520250-2	520250-9
	6	6	520250-3	—
	8	8	520251-4	—
	8 Keyed	8	520252-4	—
	4	4	555980-1	—
Side Entry without Panel Stops	6	2	520470-4	—
	6	4	555979-1	—
	6	6	520470-3	—
	8	8	520426-4	—
	8 Keyed	8	554517-1	—



8-Position with Flange



4-Position with Panel Stops

Printed Circuit Board Jacks — Low Profile (11.5mm)

Material and Finish

Housing — Polyester (wave solder compatible), UL 94V-0 rated
Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

8-Position Jack with 8 Contacts

Black Color

Part Number 215877-7



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82066

Modular Interconnection System

Printed Circuit Board Jacks — High Performance Modular Jacks

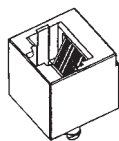
Material and Finish

Housing — Polyester, black, UL 94V-0 rated

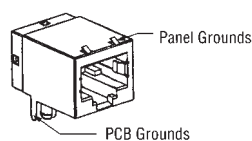
Contact — Phosphor bronze, gold over nickel plated in contact area, tin-lead over nickel in solder area

Shield — Brass, bright tin-lead plated

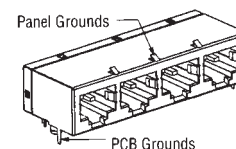
Top Entry shown without Panel Stops



Side Entry Shielded shown with Panel Grounds



Multi-Port Shielded



	No. of Ports	Entry		Shielded		Unshielded	
				PC Ground ONLY	Panel & PC Ground	Panel Stop	W/O Panel Stops
Single Port	1	Top	Unkeyed	—	—	—	558397-1
	1	Side	Unshielded Keyed	—	—	—	558341-1
	1	Side	Shielded	558342-1	558344-1	—	—
Multi-Port	4	Side	Shielded	558503-1	558524-1	—	—
	6	Side	Shielded	558504-1	558525-1	—	—
	8	Side	Shielded	558505-1	—	—	—

Printed Circuit Board Jacks — Multi-Port

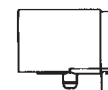
Material and Finish

Housing — Polysulfone, black, UL 94V-0 rated

Contact — .013 [0.33] thk. phosphor bronze; plated .000050 [0.00127] gold in localized area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

Shield — .010 [0.25] copper alloy tin-lead plated

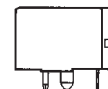
Unshielded



Description	No. of Contacts Per Port	Jack Part No.
1 Port, 8-Position, Keyed	8	557804-1
1 Port, 10-Position	10	558065-1
3 Port, 8-Position	8	557561-1

Note: On any modular jack, Terminal No. 1 is the terminal to the extreme left as you face the jack opening, tab notch down.

Shielded



Description	No. of Contacts Per Port	Standard Assembly Part No.		IR Compatible Assembly Part No.	
		PCB Gnd	PNL Gnd	PCB Gnd	PNL Gnd
1 Port, 8-Position, Shielded	8	—	557787-1	558575-1	—
1 Port, 8-Position, Shielded, Keyed	8	558310-1	—	—	—
1 Port, 10-Position, Shielded	10	558067-1	—	—	—
2 Port, 8-Position, Shielded	8	557570-1	—	—	—

Note: On any modular jack, Terminal No. 1 is the terminal to the extreme left as you face the jack opening, tab notch down.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82066

Modular Interconnection System

Printed Circuit Board Jacks — Shielded, Through-Hole, Side Entry, Low Profile

Material and Finish

Housing — Polyester (wave solder compatible), UL 94V-0 rated

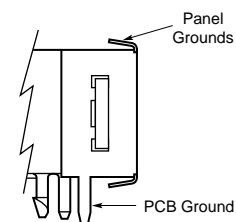
Contact — .014 [0.36] thk. phosphor bronze; plated .000050 [0.00127] gold in contact area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate



6-Position



8-Position



Miscellaneous Products (Continued)

Description	Style	Contacts Loaded	Part Numbers	
			Tray Packed	Tube Loaded
6-Position Shielded Jack	PC Board Ground	6	555154-1	—
		4	555154-2	—
	Panel Ground	6	555140-1	—
		4	555140-2	—
8-Position Shielded Jack	PC Board Ground	8	—	555153-3
8-Position Shielded Jack Keyed	PC Board Ground	8	556591-1	—

Note: On any modular jack, Terminal No. 1 is the terminal to the extreme left as you face the jack opening, tab notch down.

Printed Circuit Board Jacks — Stacked Multi-Port

Material and Finish

Housing — Polysulfone, black, UL 94V-0 rated

Contact — .013 [0.33] phosphor bronze; plated .000050 [0.00127] gold in localized area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

Shield — .010 [0.25] copper alloy tin-lead plated



Description	No. of Ports	No. of Terminals Per Port	Jack Part Numbers
2 x 1 Ports Shielded with Panel Ground	2	8	569381-1
2 x 4 Ports Shielded with Panel Ground	8	8	569262-1
2 x 6 Ports Shielded with Panel Ground	12	8	569263-1
2 x 8 Ports Shielded with Panel Ground	16	8	569264-1

Printed Circuit Board Jacks — Modular Jacks with Shorting Bar

Material and Finish

Housing — Polysulfone, black, UL 94V-0 rated

Contact — .013 [0.33] phosphor bronze; plated .000050 [0.00127] gold in localized area and .000150 [0.00381] tin-lead on solder tails, over .000050 [0.00127] nickel underplate

Shield — .010 [0.25] copper alloy tin-lead plated



Description	No. of Positions	Shorting Configuration	Jack Part Number
			Shielded PCB Ground
8-Position RJ-48-X Shorting	8	1 to 4 & 2 to 5	557789-1
8-Position Token Ring Shorting	8	3 to 5 & 4 to 6	557813-1

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82066

Modular Interconnection System

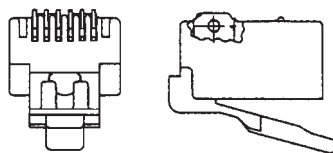
Miscellaneous Products (Continued)

Modular Plugs — Standard

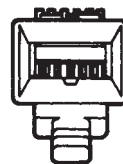
Material and Finish

Housing — Polycarbonate, UL 94V-0 rated

Terminal — .014 [0.36] thick phosphor bronze; plated .000050 [0.00127] gold in contact region, gold flash on remainder, over .000100 [0.00254] nickel underplate



6-Position Line Plug Assemblies



Flat Oval Cable

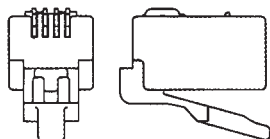
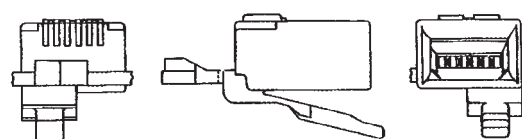


Round Cable

Description	Plug Part Numbers					
	Strip	10,000/Box	1,000/Box	500/Box	100/Box	25/Bag
2-Position Flat Oval Stranded Line	—	—	5-641333-2	—	—	—
4-Position Flat Oval Solid Line	—	—	5-556384-2	—	5-556384-3	—
4-Position Flat Oval Stranded Line	641335-1	5-641335-1	5-641335-2	—	—	5-641335-7
4-Position Round Solid Line	—	—	—	—	5-569030-3	—
4-Position Flat Oval Small Solid Conductor Line ¹	—	—	5-557965-2	—	—	—
4-Position Long Flat Oval Stranded Line	—	5-556586-1	—	—	—	—
6-Position Flat Oval Solid Line	—	—	5-555042-2	—	—	5-555042-4
6-Position Flat Oval Stranded Line	641337-1	5-641337-1	5-641337-2	—	—	5-641337-4
6-Position Round Solid Line	—	—	5-569032-2	—	—	—
6-Position Round Stranded Line	—	—	5-554710-2	—	—	5-554710-4
6-Position Flat Oval Small Solid Conductor Line ¹	—	—	5-557970-2	—	—	—
8-Position Flat Oval Solid Line	554720-1	5-554720-1	—	5-554720-2	—	5-554720-4
8-Position Flat Oval Stranded Line	554739-1	5-554739-1	—	5-554739-2	—	5-554739-4
8-Position Round Solid Line	—	—	—	—	—	5-557315-4
8-Position Round Stranded Line	—	5-554169-1	—	5-554169-2	—	5-554169-4
8-Position Small Round Cable Stranded Line	—	5-557961-1	—	5-557961-2	—	—
8-Position Small Round Cable Solid Line	—	—	—	5-569215-2	5-569215-3	—
8-Position Flat Oval Small Solid Conductor Line ¹	—	—	—	5-557972-2	5-557972-3	—
8-Position Flat Oval Small Stranded Conductor Line ¹	—	—	—	—	5-557973-3	—
8-Position Keyed Flat Oval Stranded Line	—	—	—	5-554743-2	—	—
10-Position Round Stranded Line	—	—	—	5-557963-2	5-557963-3	—

¹Small conductor products are for .029-.034 [.737-.864] OD conductors. Small Conductor product housings are tinted blue to differentiate from Standard Product. Standard products cover .029-.039 [.737-.991] when a small conductor product does not exist.

Note: On any modular plug, Terminal No. 1 is the terminal to the extreme left as you face the cable opening, latch tab down.

Modular Plugs —
4-Position HandsetModular Plugs —
with Offset Latch (6-Position Plug Style Only)

Description	Plug Part Numbers		
	Strip	1,000/Box	25/Bag
4-Position Flat Oval Stranded	641334-1	5-641334-2	5-641334-7

Description	Plug Part Numbers		
	1,000/Box	100/Box	25/Bag
6-Position Flat Oval Solid Offset	—	5-555236-2	—
6-Position Flat Oval Stranded Offset	5-555237-1	—	5-555237-3

Note: Offset latch product conforms to FCC requirements except for latch location.

BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 82066

**Inverted RJ45 Modular
Jacks with Integrated LEDs****Single Port****Material and Finish**

Housing — High temperature Nylon
UL 94V-0 rated

Contact — .013 [0.33] Phosphor
bronze; plated .000050 [0.00127] gold
in localized area and .000150 [0.00381]
tin-lead on solder tails, over .000050
[0.00127] nickel underplate

Shield — .010 [0.25] copper alloy
tin-lead plated

Miscellaneous Products (Continued)**All Plastic****Part Number 406533-1****Shielded****Part Number 406549-1****AMP 110Connect System****Snagless Boots for
Modular Plugs**

Color	Part Number
Black	569875-1
Almond	569875-2
Red	569875-3
Green	569875-4
Blue	569875-5
Yellow	569875-6
Orange	569875-7
White	569875-8
Violet	569875-9
Gray	1-569875-0

**Cable**

**FUTURELAN Enhanced Cat 5,
4-Pair UTP, Unshielded, 24 AWG,
Non-Plenum**

Part Number 57826-5

Blue color

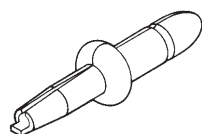


For Complete Product Information, Order Catalog 82066, Lit. 889226, 296526

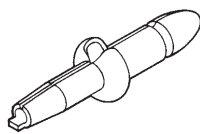
Printed Circuit Board
Terminals and DisconnectsPrinted Circuit Board
Disconnects — Pins

Diameter Formed — .058 [1.47]

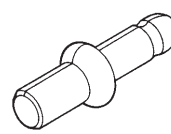
Miscellaneous Products (Continued)



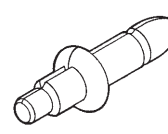
Type B



Type C



Type D



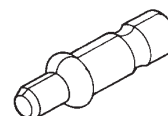
Type E

Type	Hole Diameter	PC Board Thickness	Material and Finish	Part Numbers	
				Strip Form	Loose Form ¹
B	.050-.046 1.27-1.17	.063 or .094 1.60 or 2.39	Phos. Brz./Pre-Tin	60802-2	60803-2
B	.062-.058 1.57-1.47	.063 or .094 1.60 or 2.39	Phos. Brz./Pre-Tin Phos. Brz./Gold ²	60809-1 —	60874-1 60874-2
B	.070-.066 1.78-1.68	.063 or .094 1.60 or 2.39	Phos. Brz./Pre-Tin	—	61018-1
C	.050-.046 1.27-1.17	.063 or .094 1.60 or 2.39	Phos. Brz./Gold ³	—	61067-1
D	.073-.067 1.85-1.70	.063 1.60	Phos. Brz./Pre-Tin Phos. Brz./Gold ²	60824-1 60824-2	— —
E	.061-.055 1.55-1.40	.063 1.60	Phos. Brz./Pre-Tin	60973-1	640394-1

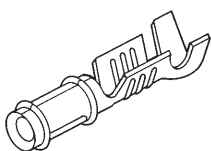
¹Use Insertion Tool No. 689141-1 for Loose Form Pins².000030 [0.00076] gold plated³.000030 [0.00076] gold plated in disconnect area**Note:** All above formed pins are made from .010 [0.25] thick materialPrinted Circuit Board
Disconnects — Pins

Diameter Formed — .093 [2.36]

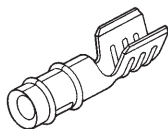
Hole Diameter	PC Board Thickness	Material and Finish	Part Numbers	
			Strip Form	Loose Form
.073-.067 1.85-1.70	.063 1.60	Phos. Brz./Pre-Tin	61137-1	350491-1

Printed Circuit Board
Disconnects — Receptacles

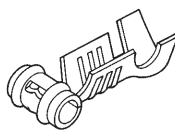
Diameter — .058 [1.47]



Type A



Type B



Type C

Type	Wire Size Range AWG [mm ²]	Insulation Diameter	Material and Finish	Part Numbers	
				Strip Form	Loose Form
A	26-22 [0.15-0.4]	.035-.065 0.89-1.65	Phos. Brz./Gold ¹	—	60983-1
			Phos. Brz./Pre-Tin	—	60983-2
			Be. Cu./Gold ¹	—	60983-3
A	26-20 [0.15-0.6]	.040-.110 1.02-2.79	Be. Cu./Tin	350196-1 ³	—
A	24-20 [0.2-0.6]	.045-.070 1.14-1.78	Phos. Brz./Pre-Tin	60598-3	60789-1
			Be. Cu./Tin	60598-4	60789-2
			Phos. Brz./Gold	—	60789-3
			Be. Cu./Gold ²	60598-9	60789-8
A	24-20 [0.2-0.6]	.060-.090 1.52-2.29	Phos. Brz./Pre-Tin Be. Cu./Tin	60940-1 60940-2	60986-1 —
B	22-17 [0.4-1.0]	—	Be. Cu./Tin	640259-1	640024-1
C	26-22 [0.15-0.4]	.035-.065 0.89-1.65	Phos. Brz./Pre-Tin	61513-2	—
C	24-20 [0.2-0.6]	.045-.070 1.14-1.78	Be. Cu./Gold ²	—	61276-1
			Phos. Brz./Pre-Tin	—	61276-2
			Be. Cu./Tin	—	61276-3

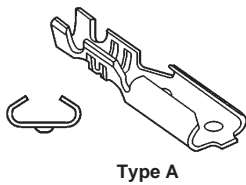
Diameter — .093 [2.36]

Type	Wire Size Range AWG [mm ²]	Insulation Diameter	Material and Finish	Part Numbers	
				Strip Form	Loose Form
A	28-26 [0.08-0.15]	.032-.057 0.81-1.45	Phos. Brz./Tin	35022-1	—
A	22-18 [0.4-0.8]	.060-.110 1.52-2.79	Phos. Brz./Tin	61291-1	61260-1
			Be. Cu./Tin	61291-2	—

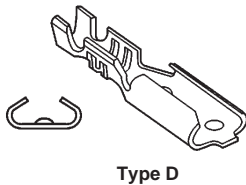
¹.000030 [0.00076] gold plated. ².000015 [0.00038] gold plated. ³These receptacles have an overlap insulation crimp.**Note:** All above receptacles are made from .010 thick material.For Complete Product
Information, Order Catalog 82159

Printed Circuit Board Terminals and Disconnects

AMP EDGE Terminals



Type A



Type D

Miscellaneous Products (Continued)

Type	Wire Size Range AWG [mm ²]	Insulation Diameter	Material and Finish	Stock Thickness	Board Thickness	Part Numbers Strip Form
A	22-20 [0.4-0.6]	.075 1.91	Phos. Brz./Tin	.010 0.25	.062 1.57	42263-7 ¹
D	22-18 [0.4-0.8]	.080-.100 2.03-2.54	Phos. Brz./Tin	.010 0.25	.062 1.57	61561-2 ²
D	22-18 [0.4-0.8]	.080-.100 2.03-2.54	Brass/Tin	.016 0.41	.062 1.57	60704-1 ³

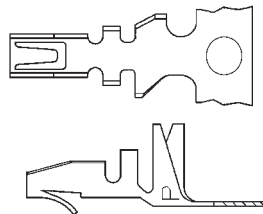
¹(2) dimples outside (.010 high) [0.25]²(2) dimples inside (.020 high) [0.51]³(2) dimples inside (.005 high) [0.13]

Miniature AMP-IN Terminals

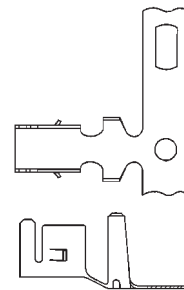
Material and Finish

Contact — .008 [0.20] phosphor
bronze, Pre-tin plated

PC Board Thickness — .062 [1.57]



Type A



Type B

Type	Wire Size Range AWG [mm ²]	Insulation Diameter	Board Hole Diameter	Extension Below Board (Ref.)	Part Numbers Strip Form Terminal
A	22-18 [0.3-0.9]	.060-.110 1.52-2.79	.072 ±.003 1.83 ±0.08	.100 2.54	794121-1
B	18-14 [0.8-2.0]	.090-.150 2.29-3.81	.125 ±.003 3.18 ±0.08	.125 3.18	770060-1
	10 [5.5]	.200 5.08	.150 3.81 REF	.125 3.18	794037-1

Notes: 1. Not available in loose piece.

2. No hand tools available.

Low Profile Miniature AMP-IN Connectors

Material and Finish

Housing — Nylon, 94V-0 rated

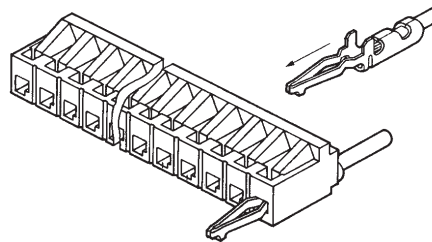
Contact — Brass, Pre-tin plated

PC Board Thickness Range —
.047-.062 [1.19-1.57]

12-Position

Centerline — .098 [2.49]

Housing Part Number 1-172520-2



Wire Size Range AWG [mm ²]	Insulation Diameter	Hole Diameter	Contact Part Number Strip Form
26-22 [0.15-0.4]	.055-.059 1.40-1.50	.031 0.79	172782-1
		.039 0.99	172782-2

For Complete Product Information, Order Catalog 82159

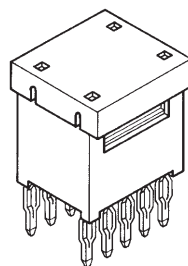
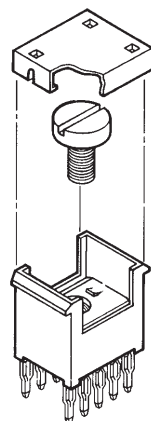
Printed Circuit Board
Terminals and DisconnectsPower Tap — Standard
Insulated

Material and Finish

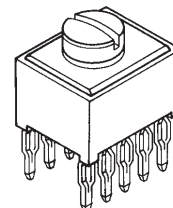
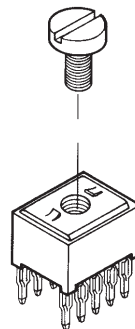
Connector Body and Lid — Nylon,
105°C, 94V-0 rated

Contact — Copper alloy, bright
tin-lead plated

Screw — Plated steel



**.300 x .100 [7.62 x 2.54]
High Profile Tap
10-Position**



**.300 x .100 [7.62 x 2.54]
Low Profile Tap
10-Position**

Tap Version	PCB Thickness	Description	Screw Hole Size	Part Numbers
High Profile	.062-.125 1.57-3.18	Housing and contact assembled without screw ¹	6-32	55557-3
High Profile	.062-.125 1.57-3.18	Housing and contact assembled with screw ^{1,2}	6-32	55557-4
Low Profile	.062-.125 1.57-3.18	Housing and contact assembled with screw ²	6-32	55556-4
Low Profile	.062-.125 1.57-3.18	Housing and contact assembled with screw ^{2,3}	6-32	55673-2
Low Profile	.062-.125 1.57-3.18	Housing and contact assembled without screw	6-32	55556-3
Low Profile	.062-.125 1.57-3.18	Housing and contact assembled without screw	M4	55556-9

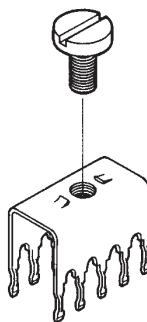
¹Cover not assembled ²Screw not assembled ³No anti-rotational embossments

Power Tap — Standard
Uninsulated

Material and Finish

Contact — Copper alloy, post plated
bright tin-lead

Screw — Stainless steel, passivated



Size	PCB Thickness	Description	Screw Size	Part Number
.300 x .100 7.62 x 2.54 10-Position	.062-.125 1.57-3.18	Without Screw	6-32	55558-3
		With Screw	6-32	55558-4
		Without Screw	6-32	55558-7 ¹
.250 x .125 6.35 x 3.18 6-Position	.062-.125 1.57-3.18	Without Screw	6-32	55323-5
		With Screw	6-32	55323-9
.250 x .125 6.35 x 3.18 10-Position	.062-.125 1.57-3.18	With Screw	6-32	1-55323-0

¹No anti-rotation embossments

Power Tap — High Current
Designed to mate with
FASTON and Positive-Lok
Receptacles

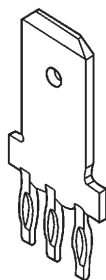
*Up to 5 amps per pin

Material and Finish

Contact — Phosphor bronze, post
plated tin-lead

Screw — Stainless steel, passivated

Washer — Stainless steel



Style II

PCB Thickness	Description	Part Number	Receptacle Mating
.062 x .125 1.57 x 3.18	.250 x .032 6.35 x 0.81 Tab With Hole	216843-1	Positive Lock

For Complete Product Information, Order Catalog 82159

High Speed Serial Data Products**Cable Assemblies —
8-Position HSSDC
Assembly****Miscellaneous Products (Continued)****Material and Finish**

Contacts — Phosphor bronze;
0.00076 [.000030] min. gold on contact
surface over 0.001-0.003 [.000040-
.00012] nickel

Cable — Shielded Quad, 150 Ohm,
PVC Jacket, CL2

Part Number 1-621724-1
22 AWG Cable

Part Number 636136-1
22 AWG Cable with Equalizer

**Cable Assemblies —
HSSDC to DB-9 Plug
Assembly (AMPLIMITE
Plug to HSSDC Adapter)**

Part Number 636246-4
28 AWG Cable
(Suitable for Inter-Cabinet applications.)

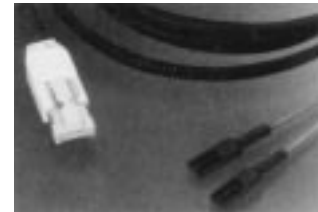
Part Number 636246-3
30 AWG Cable
(Suitable for Inter-Cabinet applications.)

Part Number 636246-2
30 AWG Cable
(Suitable for Intra-Cabinet applications.)

**Cable Assemblies —
Point-to-Point Adapter
Assembly (HSSDC to
3-Position PTP)****Material and Finish**

Cable — Shielded Differential Pair,
150 Ohm, PVC Jacket

Part Number 636351-2
30 AWG Cable

**Receptacle Assemblies —
8-Position Right-Angle,
Surface Mount HSSDC****Material and Finish**

Plating — 0.00076 [.000030] min.
gold on contact surface, 0.00381
[.000150] min tin-lead on solder tails
all over 0.00127-0.00203 [.000050-
.000080] nickel

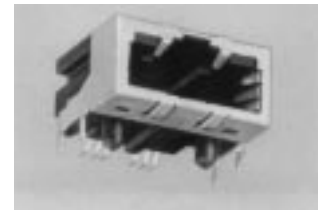
0.00200-0.00300 [.000079-.000118]
bright tin-lead over 0.00254 [.0001]
copper on shield

Housing — Polyphthalamide glass
reinforced

Shield — Copper zinc alloy

Contact — Phosphor bronze

Part Number 636180-1



BLUE part numbers indicate 2D
geometry and 3D CAD models
that are included on CD-ROM.

For Complete Product Information, Order Catalog 889003

High Speed Serial Data Products

Headers — 3-Position Straight

Miscellaneous Products (Continued)

Material and Finish

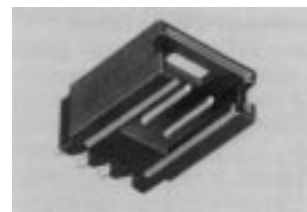
Plating — .00038 [.000015] or .00076 [.000030] gold on the contact area, .0025-.0051 [.000100-.00020] matte tin-lead on the solder tail all over

Housing — flame retardant thermoplastic, black

Contact — Phosphor bronze

Part Number **3-102202-4**, 15μ in gold

Part Number **103414-1**, 30μ in gold



Headers — 3-Position Right-Angle

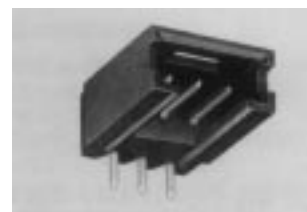
Material and Finish

Plating — .00038 [.000015] or .00076 [.000030] gold on the contact area, .0025-.0051 [.000100-.00020] matte tin-lead on the solder tail all over

Housing — flame retardant thermoplastic, black

Contact — Phosphor bronze

Part Number **3-102203-4**, 15μ in gold



Copper Gigabit Interface Converter (GBIC)

SCA2 Vertical Receptacle (Thru-Hole Leads)

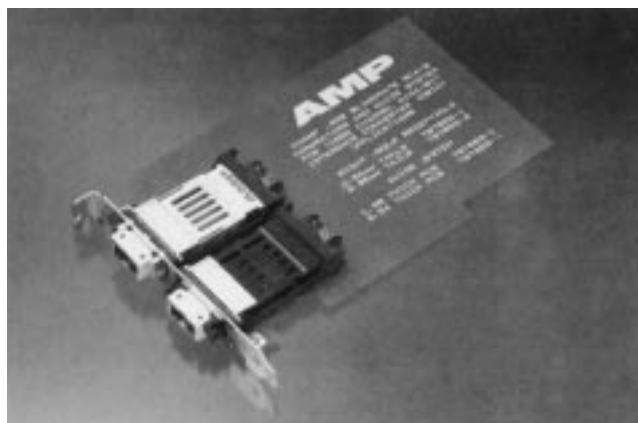
Part Number **787646-2**
Without Polarization

Material and Finish

Housing — Polycarbonate, black

Shield — Tin-lead plated brass/Die cast metal

Contacts — Phosphor bronze with 0.00076 [.000030] min. gold plating over 0.00127 [.000050] min. nickel underplating



Gigabit Interface Converter (GBIC) and Module Guide

Guide Assembly

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Retention Leg — Brass, plated 0.00381 [.000015] min. tin-lead over 0.00127 [.000050] min. nickel

Part Number **787663-3**
(1.58mm PCB)

Part Number **787663-4**
(2.54mm PCB)



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889003

High Speed Serial Data Products

**CHAMP .050 Series I
Blindmate SCA 2 for
Fibre Channel —
40-Position
Plug Assembly,
Straddle Mount**

Miscellaneous Products (Continued)**Material and Finish**

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated 0.00076 [.000030] min. gold on mating end, 0.00381 [.000015] min. tin-lead on solder end, both over 0.00127 [.000050] min. nickel underplating

Retention Leg — Brass, plated 0.00381 [.000015] min. tin-lead over 0.00127 [.000050] min. nickel
Note: Will accept PCB 1.32 [.052] thick, max.

Part Number 84487-2



**CHAMP .050 Series I
Blindmate SCA 2 for
Fibre Channel —
40-Position
Receptacle Assembly,
Vertical Mount**

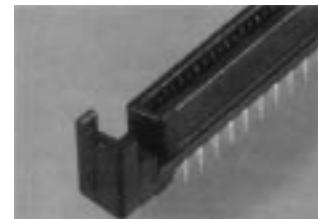
Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated 0.00076 [.000030] min. gold on mating end, 0.00381 [.000015] min. tin-lead on solder end, both over 0.00127 [.000050] min. nickel underplating

Retention Leg — Brass, plated 0.00381 [.000015] min. tin-lead over 0.00127 [.000050] min. nickel
Note: Will accept mating PCB 1.60 [.063] thick, max.

Part Number 787317-1
(with Polarization Post)



**CHAMP .050 Series I
Blindmate SCA 2 for
Fibre Channel
20-Position Plug Assembly,
Straddle Mount**

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated 0.00076 [.000030] min. gold on mating end, 0.00381 [.000015] min. tin-lead on solder end, both over 0.00127 [.000050] min. nickel underplating

Retention Leg — Brass, plated 0.00381 [.000015] min. tin-lead over 0.00127 [.000050] min. nickel
Note: Will accept PCB 1.32 [.052] thick, max.

Part Number 787643-1



**CHAMP .050 Series I
Blindmate SCA 2 for
Fibre Channel
20-Position Right-Angle
Receptacle Assembly,
Board-to-Board**

Material and Finish

Housing — Thermoplastic, 94V-0 rated, black

Contacts — Phosphor bronze, plated 0.00076 [.000030] min. gold on mating end, 0.00381 [.000015] min. tin-lead on solder end, both over 0.00127 [.000050] min. nickel underplating

Retention Leg — Brass, plated 0.00381 [.000015] min. tin-lead over 0.00127 [.000050] min. nickel

Part Number 787653-1
(2.54mm Tails)

Part Number 787653-2
(3.05mm Tails)



BLUE part numbers indicate 2D geometry and 3D CAD models that are included on CD-ROM.

For Complete Product Information, Order Catalog 889003

Quiet Line Filter Products

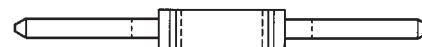
Standard Loose Piece
Filters — Pin-Sleeve Style

Material and Finish

Contact — Copper alloy 260, plated .000015 [0.00038] min. gold per MIL-G-45204, Type I, Grade C over .000070 [0.00178] min. nickel per QQ-N-290

Solder — SN10 per QQ-S-571

Filter — Ferrite and ceramic



Part Number 859611-1
DA Filter Type

Recommended Mounting Hole:
.095^{+0.002} [2.41^{+0.05}] (#41 drill)

Standard Loose Piece
Filters — Eyelet Style

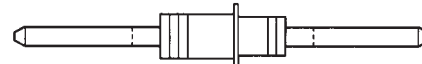
Material and Finish

Contact — Copper alloy 260, plated .000015 [0.00038] min. gold per MIL-G-45204, Type I, Grade C over .000070 [0.00178] min. nickel per QQ-N-290

Eyelet — Copper alloy per QQ-B-626, plated .000015 [0.00038] min. gold per MIL-G-45204, Type I, Grade C over .000070 [0.00178] min. nickel per QQ-N-290

Solder — SN10 per QQ-S-571

Filter — Ferrite and ceramic



Part Number 859614-1
DA Filter Type

Recommended Mounting Hole:
.117^{+0.002} [2.97^{+0.05}] (#32 drill)

Part Number 859615-1
DB Filter Type

Part Number 859616-1
DC Filter Type

Standard Loose Piece
Filters — 8-32 Bolt Style

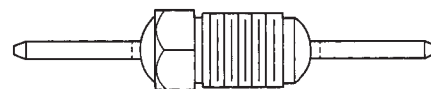
Supplied with lock-washer and nut except as noted.

Material and Finish

Contact and Bolt Body — Copper alloy 260, plated .000100 [0.00254] min. silver per QQ-S-365 over .000050 [0.00127] min. nickel per QQ-N-290

Filter — Ferrite and ceramic

Color Code — Black epoxy



Part Number 859617-1
DA Filter Type

Part Number 859618-1
DB Filter Type

Part Number 859619-1
DC Filter Type
(Lockwasher and nut are not included)

Recommended Mounting Hole:
DA and DB Types — .177^{+0.002} [4.5^{+0.05}] Dia. (#16 drill)
DC Types — 8-32 UNC-2B

Standard Loose Piece
Filters — 12-32 Bolt Style

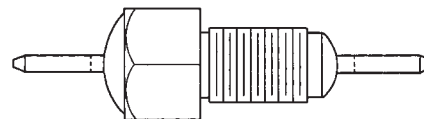
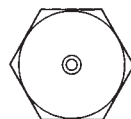
Supplied with lock-washer and nut.

Material and Finish

Contact and Bolt Body — Copper alloy 260, plated .000100 [0.00254] min. silver per QQ-S-365 over .000050 [0.00127] min. nickel per QQ-N-290

Filter — Ferrite and ceramic

Color Code — Black epoxy



Part Number 859645-1
DB Filter Type

Recommended Mounting Hole:
.228^{+0.002} [5.79^{+0.05}] Dia. (#1 drill)

Premium Loose Piece
Filters — 8-32 Bolt Style

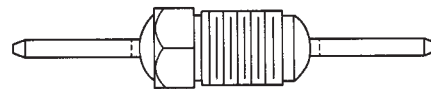
Supplied with lock-washer and nut.

Material and Finish

Contact and Bolt Body — Copper alloy 260, plated .000100 [0.00254] min. silver per QQ-S-365 over .000050 [0.00127] min. nickel per QQ-N-290

Filter — Ferrite and ceramic

Color Code — Black epoxy, Red dot



Part Number 859629-1
DA-M Filter Type

Recommended Mounting Hole:
DA-M Type — .177^{+0.002} [4.5^{+0.05}] Dia. (#16 drill)

For Complete Product Information, Order Catalog 82061

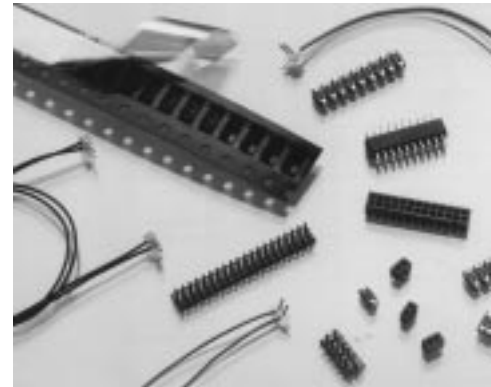
Low Profile System (LPS)

Receptacles and Headers

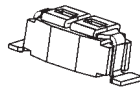
Miscellaneous Products (Continued)

Material and Finish for all Receptacles

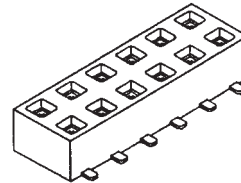
Housing — High Temperature, glass-filled thermoplastic, 94V-0 rated, black
Contact — Beryllium copper with .000002 [0.00005] min. gold plate over .000010 [0.00025] min. palladium/nickel plate over .000050-.000100 [0.00127-0.00254] matte nickel plate
Eyelet — Brass with .000150-.000250 [0.00381-0.00635] 93/7 bright tin-lead plate over .000030-.000070 [0.00076-0.00178] dull nickel plate over .000010-.000040 [0.00025-0.00102] copper plate

Receptacles —
.050 [1.27] CenterlinesInto-Board Mounting,
2-Position

Part Number 560270-1
Tape & Reel (T&R)

Top-Board Mounting,
2-Position

Part Number 560763-1
Tape & Reel (T&R)

Above-Board Mounting,
2- and 20-Positions

2-Position

Part Number 545655-1
Loose Piece (LP)

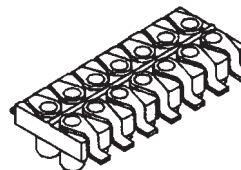
Part Number 544989-1
Tape & Reel (T&R)

20-Position

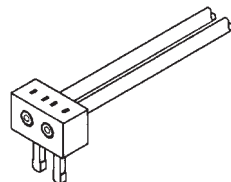
Part Number 544989-4
Tape & Reel (T&R)

Receptacles —
.079 [2.00] CenterlinesInto-Board Mounting,
24-Position

Part Number 560176-7
Tape & Reel (T&R)

Headers —
.050 [1.27] Centerlines
Insulation Displacement (IDC)
2-Position

(Not supplied as an assembly; housing and contacts are sold separately.)



Material and Finish

Housing — Unfilled Nylon, 94V-0 rated, clear

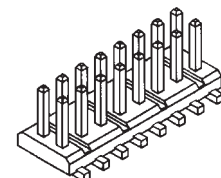
Contact — Phosphor bronze with .000015 [0.00381] min. gold plate over .000050 [0.00127] matte nickel in contact area. Remainder of contact is plated with matte nickel.

Contact Part No.	Housing Part No.
560642-1	560560-1
560559-1	560560-1

Surface-Board Mounting,
20-Position

Material and Finish

Housing — High Temperature, glass-filled thermoplastic, 94V-0 rated, black
Post — Copper alloy with .000002 [0.00005] min. gold plate over .000030 [0.00076] min. palladium/nickel plate over .000050-.000100 [0.00127-0.001254] matte nickel plate



Part Number 84169-6

For Complete Product Information, Order Catalog 124140

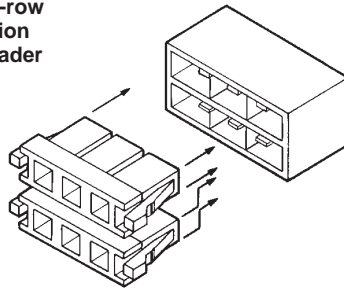
AMP Dynamic Series Connectors/D-3000 Series

Receptacle Housings — 3- and 6-Positions

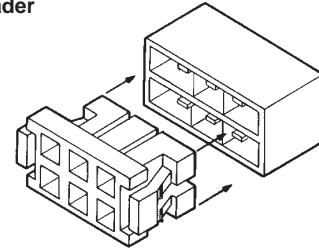
D-3200S
Single-row 3-Position
X-Type
Part Number 1-178128-3

D-3200M
Double-row 6-Position
X/X-Type
Part Number 1-178129-6

Double-row 6-Position Tab Header



Double-row 6-Position Tab Header



2 Single-row 3-Position Receptacle Housings

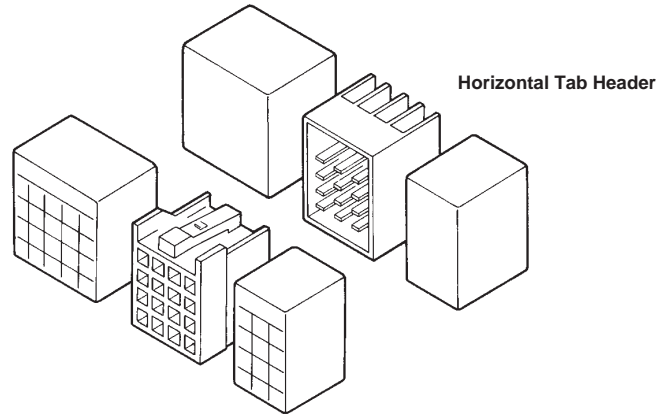
Double-row 6-Position Receptacle Housing

Tab Header Housings — 6- and 12-Positions

D-3200S
Single-row 6-Position
X/X-Type
Part Number 1-178139-2
Gold plating, 0.38µm thick, min.

D-3400F
Horizontal 12-Position
Part Number 178216-2
Gold plating, 6.38µm thick, min.

Receptacle Housing



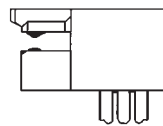
Horizontal Tab Header

CHAMP 1.0mm Series Micro-Drawer Connectors

Right-Angle Plug

Material and Finish

Housing and Tine Plate — PPA,
33% glass-filled
Retention Legs — Brass, plated
tin-lead
Contacts — Phosphor bronze, plated
palladium over nickel underplating



60-Position Part Number 11201-6

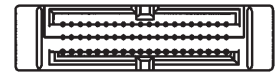
Vertical Mount Receptacle

Material and Finish

Housing and Tine Plate — PPA,
33% glass-filled
Retention Legs — Brass, plated
tin-lead
Contacts — Phosphor bronze, plated
palladium over nickel underplating



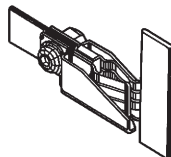
60-Position Part Number 11204-6



Blindmate Pluggable Bus Bar Connectors

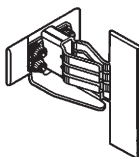
.125 Series

(Fits Bus Bar 3.18 [.125] thick)



Style F2

Part Number 104501-1

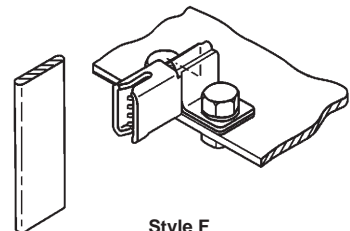


Style F3

Part Number 213647-1

.062 Series

(Fits Bus Bar 1.57 [.062] thick)



Style F

Part Number 104729-1

For Complete Product Information, Order Catalog 65224 and 124153

AMP Combination Disk Drive Connector

I/O Connectors, 2 in 1 Combination

Material and Finish

Housing — UL 94V-0 rated, high temperature thermoplastic, black

Power Contacts —

Material — Phosphor bronze

Plating Options —

1. Pre-tin plated, 100 micro inch [0.00254] min. halt tin.
2. Tin-lead (90/10), 100 micro inch [0.00254] min.
3. Tin-lead (60/40), 100 micro inch [0.00256].

Miscellaneous Products (Continued)



Signal Contacts —

Material — Phosphor bronze/Brass

Plating Options on Mating End —

1. Gold flash over 30 micro inch palladium nickel.
2. 30/15/10 micro inch gold

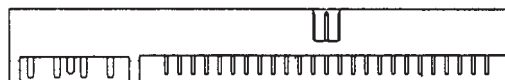
Plating Options on Solder Tails —

1. 100 micro inch 90/10 tin-lead.
2. 200 micro inch 60/40 tin-lead.

Boardlocks

Material — Brass

Plating — 100 micro inch halt tin



Part Number	Position Size	Packaging
84160-1	4+50	Slotted Tray
84273-1	4+6+40	Slotted Tray
84275-1	4+40	Slotted Tray
84368-1	4+50	Slotted Tray

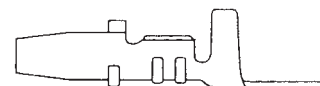
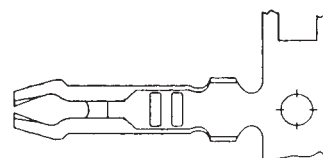
Wire-to-Board AMP-IN Terminal

Material and Finish

Contacts — Brass or phosphor bronze, tin plated

Part Number 170072-1

Wire Size AWG [mm²]	Wire Insulation Diameter
24-20 0.20-0.56	1.52-2.79



Battery Back-Up Connector

Material and Finish

Housing — Thermoplastic, natural color

Contacts — Phosphor bronze, .000030 [0.00076] min. gold on contact area, .000100 [0.00254] min. tin-lead on solder pads, with entire contact under-plated .000050 [0.00127] min. nickel

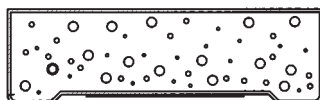
Part Number 145230-1



QUIETSHIELD Shielding Products

Length — 6 ft.

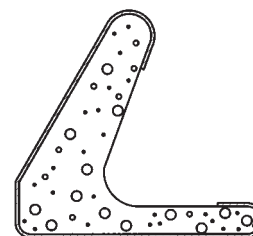
“R” Profile Gaskets



Part Number 93945-2

Non-Conductive Adhesive Attachment

“L” Profile Gaskets



Part Number 93949-2

Conductive Adhesive Attachment

For Complete Product Information, Order Catalogs 91119, 82919 and 124050

Engineering Notes

A large grid of graph paper for engineering notes, consisting of 30 columns and 40 rows of small squares.

Tooling

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Mechanical Hand Tools for Interchangeable Die Sets

Tooling (Continued)

CERTI-CRIMP "C" Head Straight Action Hand Tool (SAHT), 69710-1

Premium grade hand tool. Features ratchet control to provide complete crimp cycle. The interchangeable die sets close in a straight line to minimize contact or terminal rotation during crimping. When applicable, user-assist features, such as a contact or terminal locator and a wire stop, are built into the die set. Approximate weight 1.9 lb [0.86 kg].

For more information, request Catalog **65780**, Instruction Sheet **408-2095**.

CERTI-CRIMP Ferrule Hand Tool, 59500

Premium grade hand tool for crimping insulated, uninsulated, and heat-resistant TERMASHIELD ferrules onto single and multiple conductor shielded wire and coaxial cable. Features ratchet control to provide complete crimp cycle. The interchangeable die sets close in a straight line. Approximate weight 1.1 lb [0.49 kg].

For more information, request Instruction Sheet **408-2613**.

CERTI-CRIMP Platform Die Hand Tool, 58078-3

Premium grade hand tool for crimping Ultra-Fast and Ultra-Fast Plus FASTON terminals. Features ratchet control to provide complete crimp cycle. Same frame configuration as the TETRA-CRIMP hand tool. Includes an adjustable terminal locator. Approximate weight 1.4 lb [0.64 kg].

For more information, request Catalog **65780**, Instruction Sheet **408-6976**.

CERTI-CRIMP Semi-Rigid Cable Hand Tool, 59980-1 (Military M22520/36-01)

Premium grade hand tool for crimping Blind Mate, N, SMA, and TNC connectors onto semi-rigid coaxial cable. Features ratchet control to provide complete crimp cycle. The tool is included in the SMA Tool and Cable Preparation Kit, 59981-1. Locators must be ordered separately, if not included in the kit. Approximate weight 2.0 lb [0.91 kg].

For more information, request Instruction Sheet **408-6788**.

For Complete Product Information, Order Catalog **296240**

Mechanical Hand Tools for Interchangeable Die Sets

Tooling (Continued)

CERTI-LOK Hand Tool, 169400



Premium grade hand tool. Features similar to those of the CERTI-CRIMP "C" Head SAHT. Die sets available to crimp PIDG and PLASTI-GRIP terminals, PIDG "window" splices, SOLISTRAND terminals and splices, and Multimate Type III+ and XII contacts. Approximate weight 1.4 lb [0.49 kg].

For more information, request Instruction Sheet **408-6764**.

PRO-CRIMPER II Hand Tool, 354940-1



Commercial grade hand tool for crimping various products. Features ratchet control to provide complete crimp cycle. Accepts both pinned- and shouldered-style die sets. Locators are provided with pinned-style die sets for proper contact and wire positioning, and to help minimize contact rotation and bending during crimping. Approximate weight 1.3 lb [0.60 kg].

For more information, request Catalog **82276**, Instruction Sheet **408-9930**.

Pneumatic Hand Tools for Interchangeable Die Sets

626 Pneumatic Tool System



Lightweight, air-operated modular tooling system. Accepts a wide variety of interchangeable heads for crimping various types of contacts, terminals and splices onto wires ranging 6-26 AWG [13-0.12 mm²], plus coaxial and fiber optic cable. Available with either hand- or foot-actuation switch. Optional ratchet control available to provide complete crimp cycle.

Specifications

Outside Diameter—1.83 [46.5]

Length—11.6-12.9 [295-327]

Grip Span—2.19 [55.6] over button/handle

Weight—2.3-3.3 lb [1.0-1.5 kg]

Air—90-100 psi [6.21-6.89 bar], 11.14 in³ [0.00018 m³]

Cycle Time—0.7-0.8 sec (16-14 AWG [1.3-2 mm²] PIDG Terminals)

For more information, request Catalog **124208**.

Electrical Hand Tools for Interchangeable Die Sets

Cordless Electric Power Tool, 933150-1 (Kit, 933592-1)



Battery-operated hand tool for crimping 6 and 8 AWG [13 and 8 mm²] COPALUM splices. This tool is used exclusively for re-connecting aluminum-wired homes, and is provided only to AMP certified installers. The two sizes are crimped in a single, two-cavity, color-coded die set. The battery pack can be removed and recharged.

Specifications

Width—2.7 [69]

Depth—17 [432]

Height—10 [254]

Weight—12 lb [5.4 kg]

Battery Pack Life—approx. 200 crimps on a full charge

For more information, request Catalog **82205 (COPALUM Connectors and Heat Shrink Tubing System)**, Instruction Sheet **408-9425**.

For Complete Product Information, Order Catalog **296240**

Hydraulic Hand Tools for Interchangeable Die Sets

Tooling (Continued)

DYNA-CRIMP Electric-Hydraulic Power Units, 69120-1, -2, plus Heads

Power units for crimping large terminals and splices, including AMPPOWER and SOLISTRAND terminals, onto wires ranging from 8 AWG [8 mm²] through 1 000 kcmil [507 mm²]. Heads and die sets are interchangeable. Available with either hand- or foot-actuation switch, and hose/coupling assemblies up to 28 ft [8.5 m] in length.

Specifications**Width**—9.5 [240]**Depth**—11.5 [292]**Height**—18.2 [464]**Weight**—65 lb [29 kg]**Electrical**—120 VAC, 60 Hz (69120-1); 220 VAC, 50 or 60 Hz (69120-2); 3 240 VA max.For more information, request Instruction Sheet **408-1965**.**DYNA-CRIMP II Battery-Operated Hydraulic Power Unit, 122271-1, plus Heads**

Portable power unit for crimping large terminals and splices, including AMPPOWER and SOLISTRAND terminals, onto wires ranging from 8 AWG [8 mm²] through 1 000 kcmil [507 mm²]. It uses the same crimping heads and die sets as DYNA-CRIMP Electric-Hydraulic Power Units. The battery pack can be removed and recharged.

Specifications**Width**—5.12 [130]**Depth**—13.9 [352]**Height**—11 [279]**Weight**—19 lb [8.6 kg]**Cycle Time:** 25-30 sec.For more information, request Catalog **296501**, page 10, Instruction Sheet **408-1965**.**Hand-Operated Hydraulic Pump, 314979-1, plus Heads**

Power unit for crimping large terminals and splices, including AMPPOWER and SOLISTRAND terminals, onto wires ranging from 8 AWG [8 mm²] through 1 000 kcmil [507 mm²]. It uses the same crimping heads and die sets as DYNA-CRIMP Electric-Hydraulic Power Units. Used primarily for low-volume production or at locations where electrical power is not available.

Specifications**Width**—9.5 [241]**Depth**—24 [610]**Height**—11.4 [290]**Weight**—58 lb [26 kg]For more information, request Instruction Sheet **408-1965**.**Hydraulic Hand Crimping Tools, 59973-1, 59974-1, 59975-1**

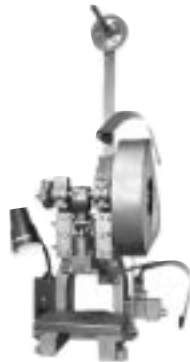
Levered hand tools for crimping large terminals and splices onto 8-4/0 AWG [8-100 mm²] wires for 59973-1 and 8-2 AWG [8-34 mm²] for 59974-1 and 59975-1. 59975-1 includes a rotating die set for crimping SOLISTRAND terminals and splices only. Bench mount 312324-1 is available for 59973-1.

Specifications**Height**—22.5 [572] (59973-1); 18 [457] (59974-1, 59975-1)**Weight**—12.5 lb [5.7 kg] (59973-1); 8 lb [3.6 kg] (59974-1, 59975-1)For more information, request Instruction Sheet **408-1965**.For Complete Product Information, Order Catalog **296240**

Crimp Machines

Tooling (Continued)

5-Ton Machine, 565433-4



This machine is used with special standard-style applicators to apply terminals and splices requiring crimping forces greater than the maximum output of AMP-O-LECTRIC Termination Machines. The machine is a modification of a fixed-bed, mechanical clutch press manufactured by Benchmaster Products, Inc.

Specifications

Width—29 [737]

Depth—25.4 [645]

Height—35.5 [902] without reel

Weight—250 lb [113 kg]

Electrical—120 VAC, 60 Hz, 6 A

Air—90-110 psi [6.21-7.59 bar] when required for use with air-feed applicators

For more information, request Catalog **82221 (Magnet Wire Terminals—AMPLIVAR and MAG-MATE)**.

AMPLIVAR Product Terminators (APT)



Semiautomatic bench machines for crimping reeled AMPLIVAR pigtail-type splices and direct connect contacts. All models are equipped with either manual or automatic precision adjustment of crimp height. Options include Crimp Quality Monitor, programmable sequencing of different crimp height settings and a wire stuffer, which automatically inserts additional wire into the splice to meet its minimum specified CMA range.

Specifications

Width—38 [965] with CQM and product reel

Depth—35 [889]

Height—14 [356]

Weight—156 lb [71 kg]

Electrical—120 VAC, 60 Hz, or 220 VAC, 50 Hz; 360 VA

Air—90-100 psi [6.21-6.89 bar], 22 scfm [0.01038 m³/s]

For more information, request Catalog **82221 (Magnet Wire Terminals—AMPLIVAR and MAG-MATE)**, Catalog **82275 [Crimp Quality Monitor (CQM)]**.

AMP-O-LECTRIC Model "G" Terminating Machines, 354500-1, -9, -11



Semiautomatic bench machines for crimping reeled terminals and contacts, featuring a quiet and reliable direct motor drive, microprocessor controls for ease of setup and operation, and guarding and lighting designed for operator convenience and safety. All models are equipped with either manual or automatic precision adjustment of crimp height. Machine-mounted sensors are available for crimp quality monitoring using conventional miniature-style applicators.

Specifications

Width—18.7-25.3 [475-643] depending on applicator type

Depth—21.5-28.1 [546-713] depending on applicator type

Height—20 [508]

Weight—240 lb [110 kg]

Electrical—120 or 220 VAC, 50 or 60 Hz; 310 VA

Air—90-110 psi [6.21-7.59 bar], 6 scfm [0.00282 m³/s] when required with air-feed applicators

Wire Range—26-10 AWG [0.12-6 mm²] solid or stranded, depending on product applied

For more information, request Catalog **65828**, Video **198116**, Catalog **82275 [Crimp Quality Monitor (CQM)]**, Video **198094**.

For Complete Product Information, Order Catalog 296240

Crimp Machines

Tooling (Continued)

Model "M" Terminating Machine, 904000-1, -2, -3

Semiautomatic bench machine is powered by magnets and microprocessor controlled. It's capable of crimping up to 10 AWG [5 mm²] wire, depending on the operating voltage. At 120 VAC, the machine produces a crimping force of 3 400 lb [15 125 N]. Changing the line cord plug and operating at 220 VAC, increases the force to 5 000 lb [22 240 N].

Accepts most end- and side-feed mini-style applicators with mechanical feed. Air-feed applicators require optional air valve assembly.

Specifications

Width—17 [430]

Depth—16.7 [425]

Height—22 [560] without reel

Weight—175 lb [80 kg]

Electrical—120 or 220 VAC, 50 or 60 Hz; 300 VA

Air—90-110 psi [6.21-7.59 bar], 6 scfm [0.00282 m³/s] when required with air-feed applicators
For more information, request Catalog **889272**.

AMP-O-LECTRIC Model "K" Terminating Machine, 1-471273-3

Semiautomatic bench machine for use with standard-style applicators. It is an electrically-powered, clutched, flywheel-energy-style machine, equipped with a mechanical strip feed mechanism. Products commonly applied with this machine include AMP splices, AMPLIVAR splices, and FASTON flag receptacles.

Specifications

Width—21 [533]

Depth—20 [508]

Height—24 [610] without reel

Weight—230 lb [104 kg]

Electrical—120 VAC, 60 Hz, 6 A

Air—90-110 psi [6.21-7.59 bar], 6 scfm [0.00282 m³/s] when required with air-feed applicators

Wire Range—26-10 AWG [0.12-6 mm²] solid or stranded, depending on product applied

For more information, contact AMP.

AMP-TAPETRONIC Machines, 68250-1, 69875

AMP-O-LECTRIC Model "K" Terminating Machines with a permanently-mounted applicator that accepts interchangeable die sets to apply a variety of tape-mounted terminals and splices. Many of the die sets can also be used in AMP-O-LECTRIC Terminating Machines with a tape applicator or in the AUTO-PRO Machine with appropriate applicators.

Specifications

Width—16 [406]

Depth—20 [508]

Height—24 [610] without reel

Weight—250 lb [113 kg]

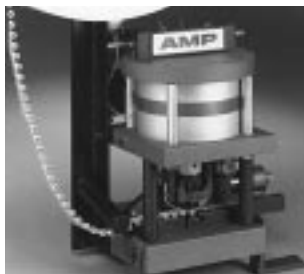
Electrical—120 VAC, 60 Hz

Wire Range—12-4 AWG [3-21 mm²] (68250-1), 26-10 AWG [0.12-6 mm²] (69875), solid or stranded, depending on product applied

For more information, contact AMP.

Crimp Machines

Tooling (Continued)

AUTO-PRO Terminating Machine, 818380-1

Air-powered semiautomatic bench machine for crimping terminals mounted on tape or plastic carriers, including PLASTI-GRIP, PIDG and Ultra-Fast FASTON tabs and receptacles and flag receptacles. Interchangeable applicators are required for different product lines with interchangeable die sets for different wire ranges.

Specifications**Width**—17.5 [444]**Depth**—11 [279]**Height**—14.5 [368]**Weight**—56 lb [25.4 kg]**Air**—85 psi [5.86 bar], 1 scfm [0.00047 m³/s]**Wire Range**—26-10 AWG [0.12-6 mm²], solid or strandedFor more information, request Catalog **82220**.**Carbon Brush Machine, 459248-2**

Modified AMP-O-LECTRIC Model "K" Machine for crimping various terminals to spring and brush assemblies used in motors. It is equipped with a mechanism that compresses the spring, and pulls the shunt wire through the spring and over the terminal. The machine is capable of producing in the range of 400 assemblies per hour, depending on brush dimensions and operator dexterity.

Specifications**Width**—27 [686]**Depth**—27 [686]**Height**—28 [711] without reel**Weight**—250 lb [113 kg]**Electrical**—120 VAC, 60 Hz, 6 A**Air**—80-100 psi [5.51-6.89 bar]For more information, request Catalog **82227 (Machine Applied Terminations, Open Barrel)**.**Pneumatic Tool for Semi-Rigid Cable Terminations, 58318-1**

Compact, air-powered, semiautomatic bench tool for crimping N, SMA, and TNC connectors onto semi-rigid coaxial cable. Interchangeable locators are included; interchangeable die sets are purchased separately. The tool is operated with a trigger switch mounted on the front of the tool.

(Note: See Semi-Rigid Cable Preparation Machine on page 560.)

Specifications**Width**—4.12 [105]**Depth**—6.25 [159]**Height**—5.12 [130]**Weight**—8 lb [3.6 kg]**Air**—80-100 psi [5.51-6.89 bar]For more information, request Instruction Sheet **408-9351**.

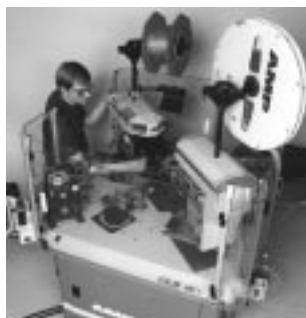
For Complete Product Information, Order Catalog 296240

Lead Makers

Tooling (Continued)

**ADUZI Lead-Making Machine,
662700-1, -5 (Basic);
-2, -6 (Value Package)**

Compact, fully-automatic lead maker, featuring programmable setups, including strip length and depth using universal stripping blades. Programmed and operated using a handheld pendant. Crimping is powered by magnets for lower maintenance requirements. Typical production rates are up to 3 000 leads per hour for closed barrel products and 5 400 for cut/strip only. Value package includes 16 popular tooling options, priced less than if purchased separately.

Specifications**Width**—31 [785]**Depth**—98 [2 490]**Height**—85 [2 160] max. (with 24 [610] dia. reel)**Weight**—910 lb [413 kg]**Electrical**—220 VAC, 50 or 60 Hz, single phase, 20 A**Air**—90 psi [6.21 bar], 14.5 scfm [0.0068 m³/s]**Wire Range**—26-14 AWG [0.12-2.5 mm²] stranded, 26-18 AWG [0.12-0.8 mm²] solid**Lead Lengths**—2.5-60 [65-1 525]; 1.62-90 [41.2-2 285] with short lead kit and long stacking trayFor more information, request Catalog **1242116**, Video **198153** (NTSC), **199621** (PAL).**AMPOMATOR CLS IV+
Lead-Making Machines,
356500-1, -2, 1213400-1, -2**

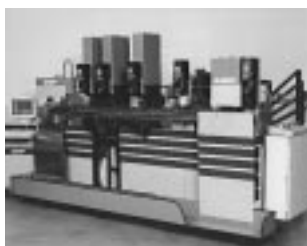
Fully-automatic machines that measure, cut, strip and terminate single leads. Microprocessor-controlled, and programmed and operated using an easy-to-follow, menu-driven touch-screen. Features include direct-drive terminating units with precision crimp height adjustment, fully programmable setups, wire runout and splice detection, and motorized pre-feed with wire straightener. Crimp quality monitoring is also available.

Specifications**Width**—159 [4 040]**Depth**—68 [1 730]**Height**—86 [2 185] with 24 [610] dia. reel**Weight**—2 000 lb [907 kg]**Electrical**—220 VAC, 50 or 60 Hz, single phase, 25 A, with neutral and ground**Air**—90 psi [6.21 bar], 15 scfm [0.0071 m³/s] sustained**Wire Range**—26-10 AWG [0.12-6 mm²] stranded, 26-16 AWG [0.12-1.4 mm²] solid**Lead Lengths**—3-90 [76.2-2 285], 90-1 000 [2 285-25 400] with long lead conveyorsFor more information, request Catalog **124324**, Video **198153** (NTSC), **199621** (PAL).

Harness Makers

Tooling (Continued)

AMP-ARA Systems



Customized, fully-automatic, modular lead- and harness-making systems. Capabilities range from sequential lead making with programmable wire selection, wire marking, wire doubling and kitting, to complex harness making with block loading, pull tests, harness forming and taping. Terminating stations accept mini-style applicators and feature programmable crimp height. Crimp quality monitoring is also available.

Specifications

Basic Machine:

Width—166 [4 220]

Depth—69 [1 755]

Height—82 [2 085]

Electrical—220 VAC, 50 or 60 Hz, 3 phase, 32 A

For more information, contact AMP.

End-Feed Heavy-Duty Miniature Applicators (coded HDM)



Interchangeable applicators for crimping products reeled end-to-end (primarily open-barrel terminals). Used in bench and lead-making machines; most designs can be used, or adapted for use with minor tooling changes, dial-in settings for different wire sizes and insulation diameters. Mechanical or air-powered feed systems, depending on the product applied.

For more information, request Instruction Sheet **408-8039**.

Applicator 2000 End-Feed Miniature Applicators



Next-generation, mini-style applicators for bench and lead-making machines (excluding pre-CLS series). Precision wire and insulation crimp adjustments, and easy changeover for bench or lead-maker use. Can also be converted to run different products; conversions limited to similar feed designs.

For more information, request Catalog **889271**; Catalog **296501**, page 41; CD-ROM **1307082**.

End-Feed Standard Applicators (coded STD)



Applicators for use with AMP-O-LECTRIC Model "K" Terminating Machine, 1-471273-3. Consist of separate ram and lower tooling assemblies. Lower tooling is bolted to the machine, and can be adjusted to vary the wire crimp height. Mechanical or air-powered feed systems, depending on the product. To crimp Tab-Lok FASTON Flag terminals, the base plate is spring loaded (called hinge bar).

For more information, request Instruction Sheets **408-8014**, **408-8011 (Hinge Bar)**.

For Complete Product Information, Order Catalog **296240**

Applicator for Side-Feed Products

Tooling (Continued)

Side-Feed Heavy-Duty Miniature Applicators (coded HDM)



Interchangeable applicators for crimping products reeled side-by-side on single or dual carrier strips (primarily closed-barrel terminals and open-barrel contacts). Similar design as the end-feed version. All side-feed applicators include a wire stop to help correctly position the wire end in the crimping target area.

For more information, request Instruction Sheet **408-8040**.

Applicator 2000 Side-Feed Miniature Applicators



Next-generation, mini-style applicators for bench and lead-making machines (excluding pre-CLS series). Precision wire and insulation crimp adjustments, and easy changeover for bench or lead-maker use. Can also be converted to run different products; conversions limited to similar feed designs. Similar design as the end-feed version.

For more information, request Catalog **889271**; Catalog **296501**, page 41; CD-ROM **1307082**.

Side-Feed Standard Applicators (coded STD)



Applicators for use with AMP-O-ELECTRIC Model "K" Terminating Machine, 1-471273-3. Similar design as the end-feed version. All side-feed applicators include a wire stop to help correctly position the wire end in the crimping target area.

For more information, request Instruction Sheet **408-8012**.

Stripper-Crimper Applicators (coded SCA)



Interchangeable applicators for crimping products in AMP-O-MATIC Stripper-Crimper Machines. Consist of separate ram and lower tooling assemblies. Similar dial-in settings for different wire sizes and insulation diameters as HDM applicators. Available with sensors for use with the Crimp Quality Monitor.

For more information, request Catalog **65004 (AMP-O-MATIC Stripper-Crimper Machines)**, Catalog **82275 [Crimp Quality Monitor (CQM)]**.

Applicator for Side-Feed Products

Tooling (Continued)

Tape Applicators,
567200-2, -3, -4

Miniature-style applicators that accept interchangeable die sets for crimping a variety of tape-mounted terminals and splices, including PIDG, PLASTI-GRIP and SOLISTRAND. The same die sets can also be used in the AMP-TAPETRONIC Machine; the TETRA-CRIMP die sets for PIDG and PLASTI-GRIP terminals can be used in the AUTO-PRO Terminating Machine. The feed mechanism is air powered.

For more information, request Instruction Sheet **408-8082**.

AMP-O-MATIC Stripper-
Crimper Machines,
854040-3, -4

Semiautomatic bench crimping machines that also strip the wire, and are therefore used for terminating jacketed cable. Feature manual precision adjustment of crimp height, keyed strip blades for faster, more accurate setups, and an efficient scrap removal system. All adjustments can be made from the front of the machines without special tools. Available with crimp quality monitoring.

Specifications

Width—14 [355]

Depth—18 [457]

Height—33 [838] without reel

Weight—150 lb [68 kg]

Electrical—120 VAC, 50 or 60 Hz, .5 A

Air—80-100 psi [5.52-6.90 bar], 3.5 scfm [0.00165 m³/s]

Wire Range—32-14 AWG [0.03-2 mm²]

For more information, request Catalog **65004**, Video **198075**, Catalog **82275 [Crimp Quality Monitor (CQM)]**, Video **198094**.

AMP-TAPETRONIC
4/8 Indent Stripper-Crimper
Machine, 599406-7

Portable bench machine that strips wire and crimps tape-mounted, closed-barrel pin and socket contacts for AMPLIMITE Military, ARINC and CPC connectors. The stripping and crimping heads are accessible through separate openings in the front of the machine. Wire strip length and crimp height are adjustable. The stripping head is pre-set to the proper cutting depth of four standard wire sizes.

Specifications

Width—12.5 [317]

Depth—12.5 [317]

Height—10 [254] without reel

Weight—45 lb [20 kg]

Electrical—120 VAC, 60 Hz, 1.3 A

Wire Range—28-20 AWG [0.08-0.5 mm²]

For more information, contact AMP.

For Complete Product Information, Order Catalog 296240

Dedicated Hand Tools

Tooling (Continued)

CERTI-CRIMP Double Action Hand Tools (DAHT)

Premium grade hand tools. Feature ratchet control to provide complete crimp cycle. Die sets close in an arc-like path. When applicable, user assist features, such as a contact or terminal locator and a wire stop are included. Approximate weight 1.2 lb [0.54 kg]

For more information, request Catalog **65780**.

CERTI-CRIMP Heavy Head Hand Tools (HHHT)

Premium grade hand tools for crimping large coaxial connectors and various types of terminals and splices on wires ranging 6-24 AWG [13-0.2 mm²]. Feature ratchet control to provide complete crimp cycle, and insulation crimp adjustment on tools for AMPLI-BOND, PIDG, DIAMOND GRIP, and PLASTI-GRIP terminals and splices. Die sets close in a straight line. Approximate weight 2.1 lb [0.95 kg]

For more information, request Catalog **65780**.

CERTI-CRIMP Straight Action, Double Action Hand Tools (SADAHT)

Premium grade hand tools. Feature ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a contact locator and support. Same handle and ratchet design as DAHT. Approximate weight 1.5 lb [0.68 kg]

For more information, request Catalog **65780**.

CERTI-CRIMP Straight Action Hand Tools (SAHT)

Premium grade hand tools. Feature ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a contact locator and wire stop, plus an insulation crimp adjustment lever, when applicable. Approximate weight 1.3 lb [0.59 kg]

For more information, request Catalog **65780**.

For Complete Product Information, Order Catalog 296240

Dedicated Hand Tools

Tooling (Continued)

CERTI-CRIMP T-HEAD Hand Tools

Premium grade hand tools for crimping PIDG and PLASTI-GRIP terminals and splices, plus spare wire caps. Feature ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a locator and a quick take-up for holding the terminal or splice in place. Approximate weight 1.3 lb [0.59 kg]

For more information, request Catalog **65780**.

Reel-Fed Pneumatic Hand Tool for Closed End Splices, 217150-1

Lightweight hand tool for crimping tape-mounted, 22-10 AWG [0.3-6 mm²], closed end splice, 2-328730-1. Features front wire entry for easy access, and crimp cycle control for consistent crimps. Trigger operated. Equipped with eyebolts for counterbalance setups on assembly lines.

Specifications

Width—3.2 [81]

Depth—10.7 [273]

Height—3.2 [81]

Weight—5 lb [2.3 kg]

Air—65-80 psi [4.48-5.52 bar], 1.13 scfm [0.00053 m³/s]

For more information, request Catalog **296501**, page **24**.

ROTA-CRIMP Hand Tools, 600850-1, 601075-1

Premium grade hand tools for crimping large SOLISTRAND and tubular terminals and splices, and CABLE MAKER battery terminals. The die sets rotate to provide multiple crimping configurations for the different terminal and splice sizes. 600850-1 and BANTAM ROTA-CRIMP tool, 601075-1 are equipped with ratchet control to provide complete crimp cycle.

Specifications**600850:**

Length—25 [635]

Weight—7.4 lb [3.4 kg]

Wire Range—8-4/0 AWG [7-100 mm²]

601075:

Length—15 [381]

Weight—4.6 lb [2.1 kg]

Wire Range—8-1/0 AWG [7-60 mm²]

For more information, request Catalog **1242066**.

SUPER CHAMP Hand Tools and Kits

Lightweight, service grade hand tools, used primarily for shop work and field repairs. Various designs available for crimping insulated and uninsulated terminals and splices, tabs and receptacles, pin and socket contacts, and modular plugs. Some tools can also be used to cut and strip wire, cut screws, and gage stud sizes. Available in kits along with an assortment of products.

For more information, request Catalog **296470**.

For Complete Product Information, Order Catalog **296240**

Dedicated Hand Tools

Tooling (Continued)

TETRA-CRIMP Hand Tool, 59824-1

Premium grade hand tool for crimping PIDG, PLASTI-BOND, and PLASTI-GRIP terminals, PIDG butt splices, and PIDG FASTON terminals onto wires ranging 22-10 AWG [0.3-6 mm²]. Features ratchet control to provide complete crimp cycle, emergency ratchet release, and terminal locator and wire stop. Die set has three color-coded crimping chambers. Approximate weight 1.4 lb [0.64 kg]

For more information, request Catalog **65780**, Instruction Sheet **408-2823**.

Special Tool Sets

End- and Side-Feed Heavy-Duty Miniature Applicators for Ultra-Pod FASTON Receptacles

Air-feed applicators for crimping uninsulated receptacles, and assembling them into insulating housing. The receptacles and housings are provided partially assembled, with the crimp barrels extending outside the housings. The receptacles are crimped on the downward stroke of the machine, and assembled on the upward stroke. Straight receptacles are side fed; flag receptacles are end fed.

For more information, request Instruction Sheets **408-8095 (Side Feed)**, **408-8099 (End Feed)**.

End- and Side-Feed, Self-Guarded Heavy-Duty Miniature Applicators

Interchangeable applicators for use with modified AMP-O-LECTRIC Model "G" Terminating Machine, 356462-1. The special guarding enables use of applicators requiring access to opposite sides of the crimper, such as positioning wires on opposite sides of a thru splice, and removal of trimmed magnet wire. A keying feature prevents the use of unguarded applicators in the modified machine.

For more information, request Instruction Sheets **408-8095 (Side Feed)**, **408-8099 (End Feed)**.

Hand Tools for IDC Products

Tooling (Continued)

AMP-BARREL Terminal Wire Insertion Tools, 552714-1 thru -5

Service grade hand tools for inserting one or two unstripped wires into pc board-mounted AMP-BARREL terminals. The tips of the tools are slot-
ted to a depth to prevent wire overinsertion. The shanks of the tools are color coded. For improved comfort, a slip-on cushion grip, 231279-1, is available.

For more information, request Catalog **82159 (Printed Circuit Board Terminals and Disconnects)**, Instruction Sheet **408-6553**.

AMP-LATCH Hand Tool Kit, 768340-1

Terminating kit for .050 [1.27] centerline ribbon cable with 28 or 26 AWG [0.08 or 0.15 mm²] stranded or solid, or 30 AWG [0.05 mm²] solid conductors. Includes commercial grade hand tool with ratchet control for complete termination cycle, base assembly, bench-mount, tooling sets for standard and novo receptacles, card edge connectors and D-Sub HDF low-profile connectors, and a carrying case.

For more information, request Instruction Sheet **408-9828**.

CHAMP MI-1 "Butterfly" Hand Tools, 229378-1, -3, -20, -23

Portable tool for applying 14-, 24-, 36-, and 50-position CHAMP connectors, including Category 5. Mass terminates and shears all wires in a single operation. Wires can be laced in the tool or in a separate lacing fixture, 230328-1, using color bar guides. Lacing fixture allows 180° as well as 90° wire dress. Approximate weight (including carrying case) 8.3 lb [3.8 kg]

For more information, request Catalog **82008 (Miniature Ribbon Connector System)**, Instruction Sheet **408-7559**.

CHAMP Palm Grip Inserter and Index Slide Kit, 229764-2

Kit includes index slides for 14-, 24-, 36-, 50-, and 64-position connectors, cable clamp, hex wrench for ratchet release, contact insertion/extraction tool and carrying case. Palm grip inserter features ratchet control that will not release the pusher until it is bottomed, and an excess wire trimmer. Connectors are mounted in the slides, and indexed by hand in the inserter.

For more information, request Catalog **82008 (Miniature Ribbon Connector System)**.

For Complete Product Information, Order Catalog 296240

Hand Tools for IDC Products

Tooling (Continued)

"Chordal" Modular Plug Hand Tools, 231648-1, 231649-1

Molded plastic service grade hand tools. Feature preset, non-replaceable cable jacket stripper and color-coded die set. Dies close in a straight line. 231648-1 applies 2-, 4-, and 6-position line plugs; 231649-1 applies 4-position handset plugs. **Note:** Also see SUPER CHAMP Modular Plug Hand Tool on page 547.

For more information, request Catalog **82066 (Modular Interconnection System)**.

Professional Modular Plug Hand Tools, 231652 Series

Premium grade hand tools. Feature ratchet control to provide complete termination cycle, and emergency ratchet release. Include interchangeable die set, with color dot code on nest and indenter, that closes in a straight line. Also has a flat-oval cable cutter and stripper. Approximate weight .75 lb [0.3 kg].

For more information, request Catalog **82066 (Modular Interconnection System)**.

Pistol Grip Hand Tool, 58074-1

Lightweight and easy-to-use hand tool for IDC connectors, featuring ratchet control that will not release the trigger until wire reaches proper insertion depth. Accepts interchangeable terminating heads that may also be used with bench-mounted power units, 58338-1 and 931800-1. Most heads automatically index to the next contact position, or the connector may be advanced by hand to any position.

For more information, request Catalog **296176**.

T-Handle Hand Tools, 59803-1, 59804-1, 59839-1, 91287-1, 229384-1

Service grade hand tools for inserting individual wires into various IDC connectors when making repairs: MTA-100, 59803-1; MTA-156, 59804-1; MTA-156 Card Edge, 59839-1; AMPLIMITE HDE, 91287-1; CHAMP, 229384-1.

For more information, request Instruction Sheets **408-7558 (CHAMP)**, **408-7907 (MTA)**, **408-9481 (HDE)**.

Hand Tools for IDC Products**Tooling** (Continued)**Tel-Splice Cartridge Hand Tool, 230722-1**

Lightweight hand tool for applying two- and three-wire splices supplied in plastic cartridges. Features a pusher that automatically feeds and ejects splices when terminated, and a spring-loaded handle that must be fully bottomed and released before a terminated splice can be ejected. Termination height gages are molded into the tool. Approximate weight 1.0 lb [0.45 kg].

For more information, request Instruction Sheet **408-6506**.

Bench Machines for IDC Products**2 700-lb Pneumatic Power Units, 312522-1, -2, -3, -4**

Bench machines for notching and terminating ribbon cable with MTA connectors, applying SDL plugs, and crimping shielding ferrules. Tooling is mounted to the ram and base plate of the frame. 312522-1 and -4 are foot actuated; -2 is pushbutton actuated; -3 is bleed-sensor actuated for use with slide tooling. Stroke distance can be adjusted on -1, -2, and -3 machines.

Specifications

Width—8 [203]

Depth—13.7 [349]

Height—23.5 [596]

Weight—50 lb [22.7 kg]

Air—80-100 psi [5.51-6.89 bar]

For more information, contact AMP.

Manual Arbor Frame Assembly, 91085-2

Bench frame for applying a variety of IDC connectors, including AMPMODU MT, AMP-LATCH, and CHAMP. Features adjustable ram and handle, and a slide base. Tooling is mounted to the ram and into the tracks of the base plate.

Specifications

Width—7.6 [194]

Depth—14.2 [362]

Height—10 [254]

Weight—13 lb [5.9 kg]

For more information, request Instruction Sheet **408-7777**.

For Complete Product Information, Order Catalog 296240

Bench Machines for IDC Products

Tooling (Continued)

Modular Plug Dual Terminators, 856195-1, -6

Air-powered bench machines for simultaneously terminating both ends of flat-oval and round telephone cable with modular plugs. Also tests the assemblies when terminated for opens and shorts. Accepts interchangeable modules, 856196 series, for different size or style plugs. Tester can be set to test specific plug sizes and contact configurations.

Specifications**Width**—8 [203]**Depth**—16.7 [425]**Height**—20.5 [521]**Weight**—62 lb [28 kg] (Terminator and Module)**Electrical**—120 VAC, 60 Hz (856195-1); 220 VAC, 50 Hz (856195-6)**Air**—80-100 psi [5.51-6.89 bar]For more information, request Instruction Sheet **408-9743**.**Modular Plug Single Terminators, 354711 Series**

Compact, lightweight, air-powered bench machines for applying modular plugs. Accepts interchangeable tooling kits, 354714 series, for different size or style plugs. Tooling kits may be ordered separately, or included with the machines. Contact insertion height is easily adjustable. Actuated by a foot valve.

Specifications**Width**—3.5 [89]**Depth**—8.7 [221]**Height**—12.5 [317]**Weight**—7.2 lb [3.3 kg]**Air**—80-100 psi [5.51-6.89 bar]For more information, request Instruction Sheet **408-9919**.**Pneumatic Auto-Cycle Unit, 91112-3**

Basically an air-powered version of Manual Arbor Frame Assembly, 91085-2. Features adjustable ram and cycle time, and automatic cycling when the lower assembly is slid into the frame to the rear of the base plate. Includes a guard around the frame opening.

Specifications**Width**—7 [179]**Depth**—19 [483]**Height**—13 [330]**Weight**—34 lb [15.4 kg]**Air**—80-100 psi [5.51-6.89 bar]For more information, request Instruction Sheet **408-6732**.

Harness Board Tools

Tooling (Continued)

MTA Harness Board Manual Pistol Grip Hand Tools, 58645-1, 58647-1

Lightweight hand tools for terminating wire harnesses with MTA-100 and -156 feed-through connectors. Tools mass terminate discrete wires or notched ribbon cable in small connectors (2 to 12 contacts for MTA-100, and 2 to 8 contacts for MTA-156). Terminating heads offer threaded mounting holes in their base for fastening to harness boards. Heads are mounted in the Manual Pistol Grip Handle Assembly, 58074-1, or Pneumatic Handle Assembly, 58075-1.

For more information, request Catalog **296501**, page **33**.

MTA Harness Board Pneumatic Hand Tools, 58575-1, 58576-1

Lightweight hand tools for terminating wire harnesses with MTA connectors: 58575-1 for MTA-100; 58576-1 for MTA-156. Used with board-mounted fixtures for holding the connectors and lacing the wires. Feature an applicator that rotates 360° to easily align with the fixtures, and engages and disengages the fixtures automatically. Insertion depth is adjustable.

Specifications

Weight—2.8 lb [1.3 kg] (58575-1)

Air—75-95 psi [5.17-6.55 bar]

For more information, request Catalog **296501**, page **28**.

Semiautomatic Machines for Discrete Wire**Electric Discrete Wire Machines, 58020-1, -2, -4, -5**

Bench machines for terminating wires one-at-a-time with AMPLIMITE HDE D-Sub and AMPMODU MT connectors with insulation displacement contacts. Feature a feed mechanism that automatically indexes the connector to the next position after each termination. The connector may also be advanced without cycling the machine. Insertion depth is adjustable. Actuated by a foot switch.

Specifications

Width—5 [128]

Depth—13.5 [343]

Height—10 [254]

Weight—22 lb [10 kg]

Electrical—120 VAC, 60 Hz (58020-1); 220 VAC, 50 Hz (58020-4)

For more information, contact AMP.

For Complete Product Information, Order Catalog **296240**

Semiautomatic Machines
for Discrete Wire

Tooling (Continued)

Electric Power Unit, 931800-1



Lightweight bench machine for use with the same interchangeable terminating heads used with Pistol Grip Hand Tool, 58074-1. Also accepts heads with either loose-piece or tape feed tracks for applying MTA connectors, and a head with a tube feed track and seating station for applying AMPMODU MTE connectors. Actuated by a foot switch.

Specifications

Width—7 [178]

Depth—14 [356]

Height—10 [254]

Weight—12 lb [5.4 kg]

Electrical—120 VAC, 60 Hz, 2 A

For more information, request Catalog **296176 (Pistol Grip Hand Tool System)**.

Semiautomatic Machines
for Ribbon CableMTE Ribbon Cable Terminator,
856002-1

Air-operated bench machine for mass terminating notched ribbon cable with AMPMODU MTE connectors. Connectors are fed through their packaging tube into the terminating station by a spring-loaded pusher tape. Contacts are inserted into the connector housing in a manually-operated seating station alongside the terminating station. Insertion depth is adjustable. Actuated by a foot valve.

Specifications

Width—43 [1 092]

Depth—10 [254]

Height—21 [533]

Weight—60 lb [27.2 kg]

Air—80 psi [5.51 bar] min.,
.5 scfm [0.00024 m³/s]

Cable Range—30-22 AWG
[0.05-0.4 mm²], .100 [25.4] center-
lines

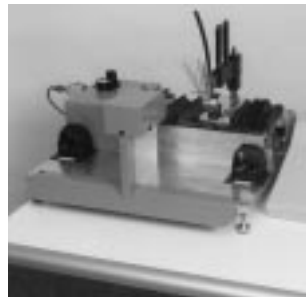
For more information, contact AMP.

Semiautomatic Machines
for Jacketed Cable

Tooling (Continued)

CHAMPOMATOR 2.5
Terminating Machines,
354786 Series, plus
Controllers, 852423-1, -3

Compact bench machines for terminating multi-conductor, jacketed cable with a variety of IDC connectors. Microprocessor controlled, and programmed using a membrane-switch keyboard. Automatically index the connector through the programmed termination pattern. Terminate either a pair of wires simultaneously in opposite contacts, or just one wire at-a-time.

Specifications**Machines:****Width**—24 [610]**Depth**—24 [610]**Height**—12 [305]**Weight**—75 lb [34 kg]**Air**—80 psi [5.52 bar] min.,
.75 scfm [0.00035 m³/s]**Controllers:****Width**—11 [286]**Depth**—17 [438]**Height**—6 [152]**Weight**—21 lb [9.5 kg]**Electrical**—120 VAC, 60 Hz
(852423-1); 220 VAC, 50 Hz
(852423-3); 480 VAFor more information, request
Catalog **82247**, Video **198043**.**CHAMPOMATOR 2.6**
Terminating Machine,
662300-1, plus Controllers,
852423-4, -5

Terminates 30 AWG [0.06 mm²], .024 [0.61] maximum insulation diameter wires in the IDC contacts of 68-position 0.8 mm Offset CHAMP plugs. It uses a process similar to the Model 2.5 machine for wire handling. The Model 2.6 bench machine comes complete with a mandrel assembly, connector nest, and inserter package. A 180° cable clamp is provided with the machine

Specifications**Machine:****Width**—16 [400]**Depth**—21 [530]**Height**—10 [250]**Weight**—75 lb [35 kg]**Electrical**—120 VAC, 60 Hz, 4 A
Air—80 psi [5.52 bar] at 1.13 scfm
[0.000533 m³/s]**Controllers:****Width**—11 [285]**Depth**—17 [440]**Height**—6 [150]**Weight**—21 lb [9 kg]**Electrical**—120 VAC, 60 Hz
(852423-4); 230 VAC, 50 Hz
(852423-5); 480 VAFor more information, request
Catalog **82247**.

For Complete Product Information, Order Catalog 296240

Automatic Machines for Ribbon Cable

Tooling (Continued)

R-CAM 2A Ribbon Cable Assembly Machine, 760700-6, -7

Fully-automatic machines for producing and testing .050 [1.27]-centerline ribbon cable assemblies up to 48 [1 219] long with up to four connectors in any orientation. Supplied with tooling to apply AMP-LATCH 20-64 position card-edge connectors and novo receptacles. Other tooling may be ordered separately. Microprocessor controlled, and programmed and operated using an interactive touchscreen.

Specifications**Width**—102 [2 591]**Depth**—58 [1 473]**Height**—60 [1 524]**Weight**—960 lb [435 kg]**Electrical**—120 VAC, 50 or 60 Hz, (760700-6); 220 VAC, 50 or 60 Hz (760700-7); 1 800 VA**Air**—80 psi [5.52 bar] min., 8 scfm [0.00378 m³/s] min.For more information, request Catalog **296060**.**R-CAM 3A Ribbon Cable Assembly Machines, 761900-1, -2**

High-speed models for producing and testing .050 [1.27]-centerline jumpers up to 105 [2 667] long with one or two connectors. It can also produce two-connector assemblies with up to 50 [1 270] long unterminated tails. Controlled, programmed and operated similar to the R-CAM 2A machines.

Specifications**Width**—48 [1 219]**Depth**—48 [1 219]**Height**—62 [1 575]**Weight**—630 lb [286 kg]**Electrical**—120 VAC, 50 or 60 Hz, (761900-1); 220 VAC, 50 or 60 Hz (761900-2); 1 800 VA**Air**—80 psi [5.52 bar] min., 8 scfm [0.00378 m³/s] min.**Production Rate**—1 075 assemblies/hr (2 connectors, 4 [102] lengthFor more information, request Catalog **296060**, Video **198056**.**R-CAM 4 Ribbon Cable Assembly Machines, 318800 Series**

Top-of-the-line models for producing and testing daisy-chained assemblies up to 100 [2 540] long with up to 10 connectors in any orientation. Longer lengths are possible with limitations. Can be converted to run either .050 [1.27]- or .025 [0.63]-centerline cable. Can also process slit-and-twist cable. Controlled, programmed and operated using either an interactive touchscreen or a keyboard.

Specifications**Width**—68 [1 727]**Depth**—58 [1 473]**Height**—72 [1 829]**Weight**—590 lb [300 kg]**Electrical**—120 or 220 VAC, 50 or 60 Hz; 1 800 VA**Air**—80 psi [5.52 bar] min., 12 scfm [0.00566 m³/s] min.For more information, request Catalog **296060**.

Automatic Machines for Jacketed Cable

Tooling (Continued)

**CHAMPOMATOR 3A
Terminating Machines,
662600 Series**

Automatic terminating machines for AMPLIMITE HDE, AMPMODU Level V and CHAMP connectors. Microprocessor controlled, and programmed and operated using an interactive touchscreen. Terminate wires at random or selectively by identifying each wire by checking continuity with the terminated opposite end. Also test for shorts. Cable clamps available for 90° and 180° wire dress.

Specifications**Width**—60 [1 524]**Depth**—24 [610]**Height**—48 [1 219]**Weight**—250 lb [113 kg]**Electrical**—120 VAC, 50 or 60 Hz, single phase, 1A**Air**—80 psi [5.52 bar] min., 10 scfm [0.00472 m³/s] min.For more information, request Catalog **82247**, Video **198026**.

Connector Insertion Devices

SM-3, 814700-2

Compact, air-powered bench machine for seating preassembled ACTION PIN connectors with up to a total of 150 contacts. Seating tools may be required depending on connector styles. It can accommodate pc boards up to 20 [508] wide. Machine cycling is operator controlled in conjunction with either pressure or board sensing to compensate for board thickness variations. Cycling time is 4 seconds.

Specifications**Width**—35.5 [902]**Depth**—23 [584]**Height**—26.5 [673]**Weight**—290 lb [132 kg]**Capacity**—6 000 lb [26 700 N]**Air**—80 psi [5.52 bar] min., 1.5 scfm [0.00071 m³/s] min.

For more information, contact AMP.

**SM-10/20 (H-Frame),
803880-6**

Hydraulically-powered machine for seating one or multiple preassembled ACTION PIN connectors simultaneously with up to a total of 1 000 contacts. Seating tools may be required depending on connector styles. It can accommodate pc boards up to 28 [711] wide. Machine cycling is operator controlled. Cycling times range from 2 seconds at 10-ton, to 2 1/2 seconds at 20-ton capacity.

Specifications**Width**—73 [1 854]**Depth**—45 [1 143]**Height**—75 [1 905]**Weight**—2 185 lb [991 kg]**Capacity**—20 000 lb [89 000 N] or 40 000 lb [178 000 N] (selectable)**Electrical**—220 VAC, 60 Hz, 3 phase, or 440 VAC, 60 Hz, 3 phase; 3 850 VA**Air**—80 psi [5.52 bar] min., 10 scfm [0.00472 m³/s] min.

For more information, contact AMP.

For Complete Product Information, Order Catalog 296240

Single Contact Insertion Devices

Tooling (Continued)

Comp-U-Sertor II Machines, 122300-1, -2



Microprocessor-controlled X-Y positioning table for inserting a variety of products into pc boards, including .025² stamped or bandoliered posts, mini-spring sockets, and FASTON tabs. Insertion heads for the different products are interchangeable, and may also be used with bench machines. Controlled, programmed and operated using an interactive touchscreen. Options include double-action clinch tooling, powered dereeler, splice run-out detector, take-up winder for paper tape, and scrap chopper.

Specifications

Width—58 [1 473]

Depth—66 [1 676] with reel

Height—63 [1 600]

Weight—500 lb [227 kg]

Electrical—120 VAC, 50 or 60 Hz, (122300-1); 220 VAC, 50 or 60 Hz (122300-2); 1 800 VA

Air—80 psi [5.52 bar] min., 15 scfm [0.00708 m³/s] min.

Insertable Area—12 x 18 [305 x 457] max.

For more information, request Catalog **296059**.

Modular Insertion System (MIS) Bench Machines, 217600 Series, 662820 Series (shown)



Bench machines for inserting a variety of products into pc boards. Uses the same interchangeable insertion heads as the Comp-U-Sertor II Machines. Series 217600 machines feature a manually-operated X-Y positioning fixture, plus a locator spot light. The machine cycles when the board hole is placed on the anvil and both triggers on the dual handles attached to the X-Y fixture are depressed. Series 662820 machines, without board fixturing, cycle automatically when the hole is properly located. A stabilizing disk over the anvil helps keep the board level.

Specifications

Width—18 [457]

Depth—24 [610]

Height—18 [457]

Weight—250 lb [113 kg]

Electrical—120 to 220 VAC, 50 or 60 Hz (217600); 120 or 240 VAC, 60 Hz, single phase, 120 VA (662820)

Air—80 psi [5.52 bar] min., 15 scfm [0.00708 m³/s] min.

Insertable Area—18 x 22 [457 x 559] max.

For more information, request Catalog **296059**.

MAG-MATE Products

MAG-MATE Product Terminators (MPTs)



Semiautomatic bench machines for applying standard and mini MAG-MATE terminals. Terminals may be inserted one or two at-a-time. Fixturing is custom designed. Models available are mounted horizontally or vertically, or as a module for use in automatic equipment including AMP Rotary Index Tables. Easy-to-use push-button controls with LCD display.

Specifications

Horizontal Bench Machines:

Width—15 [381]

Depth—29 [734]

Height—10 [254]

Weight—115 lb [52 kg]

Electrical—120 VAC, 60 Hz, or 220 VAC, 50 Hz; 600 VA

Air—80 psi [5.52 bar] min., 3 scfm [0.00142 m³/s] min.

For more information, request Catalog **82221 (Magnet Wire Terminals — AMPLIVAR and MAG-MATE)**.

For Complete Product Information, Order Catalog **296240**

MAG-MATE Products

Tooling (Continued)

Rotary Index Tables



Microprocessor-controlled positioning tables for applying MAG-MATE terminals using one or two MPT modules. Depending on the setup of workstations, the tables are programmed to rotate in 90° or 180° steps. Options include a continuity test station, a station for bending terminals up to 90° after insertion, and rotating fixtures. Machine functions are easily programmed using a hand held keypad and display.

Specifications

Table with Single Module:

Width—62 [1 575] with reel

Depth—35 [889]

Height—71 [1 803]

Weight—762 lb [356 kg]

Electrical—120 VAC, 50 or 60 Hz, 10 A

Air—80 psi [5.52 bar] min., 3 scfm [0.00142 m³/s] min.

For more information, contact AMP.

Single-Contact Devices for Flexible Circuits

Flexible Film Termination Machines, 224910-1, -2, -3, -4, -6



Semiautomatic bench machines for terminating .050 [1.27]-, .100 [2.54]-, .200 [5.08]-, and .300 [7.62]-centerline cable, circuitry and printed wiring. All positions are terminated automatically one after another. To skip positions, an optional Programmer Kit, 356484-1, is available. Crimp height is adjustable.

Specifications

Width—20.5 [520]

Depth—27.5 [700]

Height—18 [460]

Weight—100 lb [45 kg]

Electrical—120 VAC, 60 Hz, (224910-1, -3, -4); 240 VAC, 50 Hz (224910-2, -6)

For more information, contact AMP.

Strippers

Cable Stripper/Slitter, Model CS-1, 606700-1



Hand tool for stripping round cable up to 1.0 [25] outside diameter (approximately 350 kcmil [175 mm²] conductor). Uses a "V" clamp that slides in and out for cable positioning. Blade can be rotated 90° for circular or lengthwise cuts. Blade depth is also adjustable. Edge of clamp can be used to help separate cable jacket. Supplied with a spare blade.

For more information, request Instruction Sheet **408-9688**.

For Complete Product Information, Order Catalog 296240

Strippers

Tooling (Continued)

Coaxial Cable Stripper Kits, 603995-1, -2, -3, -5, -6

Hand tool for stripping the more popular sizes of coaxial cable. Features interchangeable, color-coded blade cassettes for different strip lengths. Kits include a specific blade cassette plus a set of four interchangeable, color-coded blocks for accommodating different cable diameters ranging from .10 [2.5] to .30 [7.6]. Blade depth is adjustable.

For more information, request Instruction Sheet **408-2766**.

Semi-Rigid Cable Preparation Machine, 220211-2

Compact, semiautomatic machine for cutting and stripping the outer conductor and dielectric, and chamfering the center conductor. Interchangeable tooling, 813599-1, -2, available for preparing 402 and 405 RG/U cables, respectively, for termination with Blind Mate, N, SMA, and TNC connectors. Features a carriage for securing the cable for cutting and stripping. Cutting speed and depth is adjustable.

Specifications

Width—11.6 [295]

Depth—8.2 [210]

Height—6 [152]

Weight—45 lb [21 kg]

Electrical—120 VAC, 60 Hz, 2 A

For more information, contact AMP.

Automatic Cut and Strip Machine, 1214316-1

Fully electric, microprocessor-controlled bench machine for processing wire and round and flat cable. Features LED display prompts for easy-to-follow setups and operation, automatic wire loading and unloading, and universal V-type blades. Prefeeder, 1214317-1, and wire stacker, 1214318-1, available for unattended operation. Process 5 200 wires per hour (22 AWG [0.3 mm²], 4 [100] length, partial strip both ends).

Specifications

Width—14.6 [370]

Depth—16.1 [410]

Height—10.8 [275]

Weight—48.6 lb [23 kg]

Electrical—120 or 220 VAC, 50 or 60 Hz, 160 VA

Wire Range—32-10 AWG [0.05-6 mm²] stranded, 32-16 AWG [0.05-1.5 mm²] solid

Wire Lengths—.04 [1.0]-3 280 ft [1 000 m]

Strip Lengths—up to 1.77 [45]

For more information, request Catalog **1307238**.

For Complete Product Information, Order Catalog **296240**

Strippers

Tooling (Continued)

Semiautomatic Wire Stripper Machine, 1214315-1

Compact, lightweight, air-powered bench machine for stripping wires up to 14 AWG [1.65 mm²], and cable up to .13 [3.2] OD. Features automatic sensor activation and universal V-type blades for processing varying wire sizes without changing blades. Full or partial stripping. Approximately .3 sec. machine cycle time for longest strip length.

Specifications**Width**—2.5 [60]**Depth**—9.0 [220]**Height**—6.5 [160]**Weight**—5.3 lb [2.4 kg]**Air**—75-105 psi [5.17-7.24 bar], .01 ft³ [.00028 m³]/operation**Wire Range**—32-14 AWG [0.05-1.65 mm²]**Strip Lengths**—.06-.79 [1.5-20]For more information, request Catalog **1307238**.**Wire Stripper Hand Tool, 314966-1**

Hand tool for cutting, stripping, and bending stranded or solid 22-10 AWG [0.3-6 mm²] wire sizes. Features a simple screw adjustment for different wire sizes, a spring return for reopening the tool, and a safety lock. The safety lock is also used to help prevent the jaws from opening too wide during stripping.

For more information, request Instruction Sheet **408-4037**.**Wire Stripper Hand Tool, Model WS-2, 601827-2**

Hand tool for cutting and stripping stranded or solid 20-12 AWG [0.3-3 mm²] wire sizes. Wires are stripped at the front of the tool, thereby allowing access to short wires in confined areas. Also features a 3-position stripping depth adjustment, and an adjustable wire stop. Stripping jaws can be replaced with assembly 1-601827-2.

For more information, request Instruction Sheet **408-9686**.

For Complete Product Information, Order Catalog 296240

Cable Cutters

Tooling (Continued)

Heavy-Duty Cable Cutters,
605740-1, 605742-1,
605744-1, 605745-2

Family of hand tools for cutting 8 AWG-1 000 kcmil [8-500 mm²] copper or aluminum conductors. The cutting jaws are hook shaped to force the cables into the jaws. Handles are either steel or fiberglass with plastic grips. Not designed for cutting steel or steel-reinforced conductors.

Specifications**605745-2:**

Wire Range—2/0 AWG [70 mm²] max., Cu; 4/0 AWG [100 mm²] max., Al

605744-1:

Wire Range—350 kcmil [175 mm²] max.

605742-1:

Wire Range—500 kcmil [250 mm²] max.

605740-1:

Wire Range—1 000 kcmil [500 mm²] max.

For more information, request Catalog **65689 (Products for Outside Plant Applications)**.

Ratcheted Cable Cutter Hand Tool, 607453-2

Lightweight hand tool for cutting up to 600 kcmil [300 mm²] copper or 800 kcmil [400 mm²] aluminum conductors. Features a highly-leveraged, circular cutting motion using a ratcheted moving blade. The blade can also be quickly advanced using a take-up button conveniently located just beyond the handle grip.

Specifications

Height—16 [406]

Handle Opening—19.5 [495] max.

Weight—3.3 lb [1.5 kg]

For more information, request Instruction Sheet **408-4089**.

Tie Gun

AMP-TY Application Hand Tool, 608336-1

Hand tool for applying nylon cable ties with up to a maximum tensile strength of 50 lb [222 N]. Features an adjustment for regulating the amount of tension it applies before automatically trimming off the unused end. All metal construction.

For more information, request Catalog **124132 (Products for Insulating and Bundling)**, Instruction Sheet **408-9625**.

Cutting Tool

Tooling (Continued)

Cutting Tool Kit,
314818-1

Tool cuts AMPMODU Mod. II Breakaway Headers (Single- or Double-Row, Vertical or Right-Angle) with .025 [.64] square posts on .100 [2.54] centers. The Kit includes a Pistol Grip Ratchet Handle, a Locator, a Cutting Head (includes blades and a stored set of 2 extra blades), a Hex Wrench, and a Carrying Case.

Specifications

Width—5.1 [130]**Depth**—9.0 [230]**Height**—5.5 [140]**Weight**—14.7 oz [417 g]

For more information, request Catalog **296501**, page 45, Instruction Sheet **408-9707**.

For Complete Product Information, Order Catalog 296240

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Americas

Argentina – Buenos Aires
Phone: + 54-1-733-2000
Fax: + 54-1-717-0988

Brazil – Sao Paulo
Phone: + 55-11-861-1311
Fax: + 55-11-861-0397

Canada – Toronto
Phone: + 1-905-475-6222
Fax: + 1-905-474-5520

Chile – Santiago
Phone: + 56-2-236-4267
Fax: + 56-2-235-0061

Columbia – Bogota
Phone: + 57-1-369-0045
Fax: + 57-1-269-7525

Mexico – Mexico City
Phone: + 52-5-398-76-11
Fax: + 52-5-398-79-64

United States – Harrisburg, PA
Phone: + 1-717-564-0100
Fax: + 1-717-986-7575

For Latin/South American Countries not shown
Phone: +54-1-733-2015
Fax: +54-1-733-2083

Related Businesses

AMP Circuits Division
Greenville, SC, USA
Phone: + 1-864-297-4100
Fax: + 1-864-675-7099

AMP Circuits and Packaging, EMEA
Dublin, Ireland
Phone: + 353-1-820-6500
Fax: + 353-1-820-6501

AMP Packaging and Carroll Touch Systems Division
Round Rock TX, USA
Phone: + 1-512-244-5100
Fax: + 1-512-244-7040

AMP-Sime1 S.A.
Gevrey-Chambertin, France
Phone: + 33-3-8058-3200
Fax: + 33-3-8034-1015

ARA-Applied Robotics Division
Rousset, France
Phone: + 33-4-42-29-1200
Fax: + 33-4-42-29-1212

Carroll Touch International, Ltd.
Tokyo, Japan
Phone: + 81-03-5306-2100
Fax: + 81-03-5306-2105

DSM Decolletage S.A. Saint-Maurice
Phone: + 41-24-486-2486
Fax: + 41-24-486-2400

Fibernet Division
Rowville, Australia
Phone: + 61-3-9764-2111
Fax: + 61-3-9764-2120

Wellington, New Zealand
Phone: + 64-4-237-9195
Fax: + 64-4-237-9195

HTS Elektrotechnik GmbH
Neunkirchen, Germany
Phone: + 49-2247-305-0
Fax: + 49-2247-305-22

M/A-COM Division
Americas
Lowell, MA, USA
Phone: + 1-978-442-5000
Fax: + 1-978-442-5354
Europe/Middle East/Africa
Bracknell, England
Phone: + 44-1344-869-595
Fax: + 44-1344-300-020

Asia/Pacific
Hong Kong
Phone: + 85-2-2111-8088
Fax: + 85-2-2111-8087

Madison Cable Corporation
Worcester, MA, USA
Phone: + 1-508-752-7320
Fax: + 1-508-752-4230

Madison Cable Ltd.
Dundee, Scotland
Phone: + 44-1382-508080
Fax: + 44-1382-505060

Precision Interconnect Division
Portland, OR, USA
Phone: + 1-503-620-9400
Fax: + 1-503-620-7131

Asia/Pacific

Australia – Sydney
Phone: + 61-2-9840-8200
Fax: + 61-2-9899-5649

India – Bangalore
Phone: + 91-80-845-3014
Fax: + 91-80-845-3038

Indonesia – Jakarta
Phone: + 6221-526-7852
Fax: + 6221-526-7856

Japan – Tokyo
Phone: + 81-44-844-8111
Fax: + 81-44-812-3207

Korea – Seoul
Phone: + 82-3274-0535
Fax: + 82-3274-0524

Malaysia – Kuala Lumpur
Phone: + 603-705-3055
Fax: + 603-705-3066

New Zealand – Auckland
Phone: + 64-9-634-4580
Fax: + 64-9-634-4586

Peoples Republic of China
Hong Kong
Phone: + 852-2-35-1628
Fax: + 852-2-35-0243

Shanghai
Phone: + 86-21-6485-0602
Fax: + 86-21-6485-0728

Shunde
Phone: + 86-765-7751368
Fax: + 86-765-7752823

Philippines – Manila
Phone: + 632-811-0437
Fax: + 632-811-0441

Singapore – Singapore
Phone: + 65-482-0311
Fax: + 65-482-1012

Taiwan – Taipei
Phone: + 886-2-704-4815
Fax: + 886-2-704-4940

Thailand – Bangkok
Phone: + 91-662-513-9888
Fax: + 91-662-513-9889

Vietnam – Ho Chi Minh City
Phone: + 84-8823-2546
Fax: + 84-8823-1443

Europe/Middle East/Africa

Austria – Vienna
Inside: Phone: + 0222-277-97-0
Fax: + 0222-270-26-61

Outside: Phone: + 43-1-277-97-0
Fax: + 43-1-270-26-61

Belgium – Brussels
Phone: + 32-2-719-2511
Fax: + 32-2-725-4928

Bulgaria – Sofia
Phone: + 359-2-971-2152
Fax: + 359-2-971-2153

Croatia – Zagreb
Phone: + 385-1-67-04-46
Fax: + 385-1-69-16-04

Czech Republic – Kurim
Phone: + 420-5-41-162-111
Fax: + 420-5-41-162-223

Denmark – Viby
Phone: + 45-86-295-055
Fax: + 45-86-295-133

Egypt – Cairo
Phone: + 202-417-76-47
Fax: + 202-419-23-34

Estonia – Tallinn
Phone: + 372-6205-800
Fax: + 372-6205-804

Finland – Helsinki
Phone: + 358-9-512-3420
Fax: + 358-9-512-34250

France – Pontoise
Phone: + 33-1-34-20-88-88
Fax: + 33-1-34-20-86-00

Germany – Langen
Phone: + 49-6103-709-0
Fax: + 49-6103-709-223

Great Britain – London
Phone: + 44-181-954-2356
Fax: + 44-181-954-6234

Greece – Athens
Phone: + 30-1-902-5515
Fax: + 30-1-902-4237

Holland – 's-Hertogenbosch
Phone: + 31-73-624-6246
Fax: + 31-73-621-2365

Hungary – Budapest
Phone: + 36-1-344-2633
Fax: + 36-1-344-2634

Ireland – Dublin
Phone: + 353-1-820-3000
Fax: + 353-1-820-9790

Israel – Tel Aviv
Phone: + 972-3-645-07-07
Fax: + 972-3-649-24-13

Italy – Torino
Phone: + 39-11-4012-111
Fax: + 39-11-4031-116

Lithuania – Vilnius
Phone: + 370-2-231402
Fax: + 370-2-231403

Norway – Oslo
Phone: + 47-66-77-88-50
Fax: + 47-66-77-88-55

Poland – Warsaw
Phone: + 48-22-672-47-90/91/92
Fax: + 48-22-672-47-88

Portugal – Lisbon
Phone: + 351-1-387-70-16
Fax: + 351-1-387-71-72

Romania – Bucharest
Phone: + 40-1-311-3479/3596
Fax: + 40-1-312-0574

Russia
Moscow
Phone: + 7-095-926-5506/07/08/09
Fax: + 7-095-926-5505

St. Petersburg
Phone: + 7-812-325-3083
Fax: + 7-812-326-3288

Slovakia – Bystrica
Phone: + 421-88-761-120/121
Fax: + 421-88-761-122

Slovenia – Ljubljana
Phone: + 386-61-161-3270
Fax: + 386-61-161-3240

South Africa – Johannesburg
Phone: + 27-11-805-65-35
Fax: + 27-11-805-65-40

Spain – Barcelona
Phone: + 34-3-291-0330
Fax: + 34-3-201-7879

Sweden – Stockholm
Phone: + 46-8-580-833-00
Fax: + 46-8-580-194-70

Switzerland – Steinach
Phone: + 41-71-447-0447
Fax: + 41-71-447-0444

Turkey – Istanbul
Phone: + 90-212-281-8181
Fax: + 90-212-281-8184

For Middle East/African Countries not shown
Phone: +33-1-34-20-83-83
Fax: +33-1-34-20-86-09