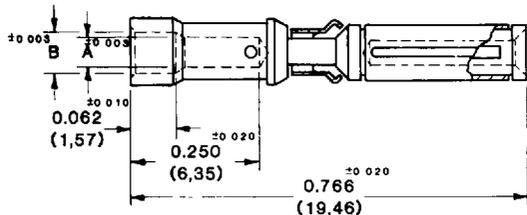
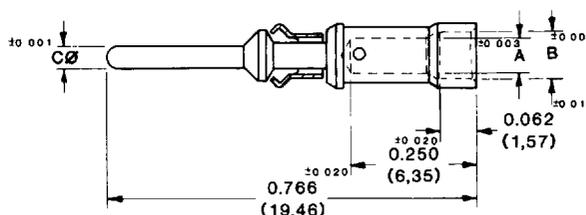


## POWR-LOK SERIES CRIMP CONTACTS

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT



Contacts are not supplied with connectors and must be ordered separately.

PART NUMBER	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B	NOMINAL RATING
FC112N2	12 (4,0)	0.098 (2,49)		25 amp
FC114N2	14-16 (2,5-1,5)	0.081 (2,06)	0.105 (2,67)	25 amp
FC116N2	16-18 (1,5-1,0)	0.067 (1,70)	0.097 (2,46)	25 amp
FC120N2	20-22-24 (0,5-0,3-0,25)	0.045 (1,14)	0.065 (1,65)	25 amp
FC124N2	24-26-28 (0,25-0,12-0,08)	0.027 (0,69)	0.055 (1,40)	25 amp
FC130N2	30-32 (0,05-0,03)	0.025 (0,64)	0.050 (1,27)	25 amp

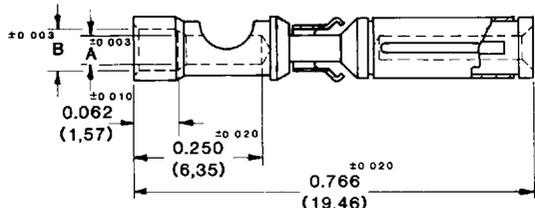
PART NUMBER	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B	CØ	NOMINAL RATING
MC112N	12 (4,0)	0.098 (2,49)		0.0625 (1,588)	25 amp
MC114N	14-16 (2,5-1,5)	0.081 (2,06)	0.105 (2,67)	0.0625 (1,588)	25 amp
MC116N	16-18 (1,5-1,0)	0.067 (1,70)	0.097 (2,46)	0.0625 (1,588)	25 amp
MC120N	20-22-24 (0,5-0,3-0,25)	0.045 (1,14)	0.065 (1,65)	0.0625 (1,588)	25 amp
MC124N	24-26-28 (0,25-0,12-0,08)	0.027 (0,69)	0.055 (1,40)	0.0625 (1,588)	25 amp
MC130N	30-32 (0,05-0,03)	0.025 (0,64)	0.050 (1,27)	0.0625 (1,588)	25 amp

Material: Copper alloy.

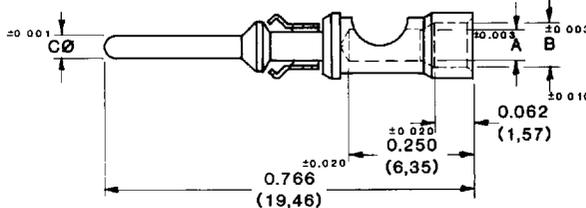
Finish: 0.000010 (0,25µ) gold over nickel or copper. 0.000030 (0,75µ) gold over nickel available by adding -14 suffix onto part number. Example: FC120N2-14

## POWR-LOK SERIES SOLDER CONTACTS

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT



Contacts are not supplied with connectors and must be ordered separately.

PART NUMBER	WIRE SIZE MAX.	A	B	NOMINAL RATING
FS112N2	12 AWG (4,0 mm <sup>2</sup> )	0.098 (2,49)		25 amp
FS114N2	14 AWG (2,5 mm <sup>2</sup> )	0.081 (2,06)	0.105 (2,67)	25 amp
FS116N2	16 AWG (1,5 mm <sup>2</sup> )	0.067 (1,70)	0.097 (2,46)	25 amp
FS120N2	20 AWG (0,5 mm <sup>2</sup> )	0.045 (1,14)	0.065 (1,65)	25 amp
FS124N2	24 AWG (0,25 mm <sup>2</sup> )	0.027 (0,69)	0.055 (1,40)	25 amp

PART NUMBER	WIRE SIZE MAX.	A	B	CØ	NOMINAL RATING
MS112N	12 AWG (4,0 mm <sup>2</sup> )	0.098 (2,49)		0.0625 (1,588)	25 amp
MS114N	14 AWG (2,5 mm <sup>2</sup> )	0.081 (2,06)	0.105 (2,67)	0.0625 (1,588)	25 amp
MS116N	16 AWG (1,5 mm <sup>2</sup> )	0.067 (1,70)	0.097 (2,46)	0.0625 (1,588)	25 amp
MS120N	20 AWG (0,5 mm <sup>2</sup> )	0.045 (1,14)	0.065 (1,65)	0.0625 (1,588)	25 amp
MS124N	24 AWG (0,25 mm <sup>2</sup> )	0.027 (0,69)	0.055 (1,40)	0.0625 (1,588)	25 amp

Material: Copper alloy.

Finish: 0.000010 (0,25µ) gold over nickel or copper. 0.000030 (0,75µ) gold over nickel available by adding -14 suffix onto part number. Example: FS120N2-14.

U.S. Patent  
#4,900,261

Patented in  
Canada, 1992

### POWR-LOK TECHNICAL CHARACTERISTICS

#### MATERIALS AND FINISHES:

<b>Insulator:</b>	Glass filled polyester, UL 94V-0.
<b>Contacts:</b>	Precision machined copper alloy with 0.000010 inch (0.25 microns) gold over nickel, or 0.000030 inch (0.8 microns) gold over nickel. Solder coated terminations optional.
<b>Mounting Clip:</b>	Beryllium copper with tin plate.
<b>Hood:</b>	Glass filled polyester, UL 94V-0.
<b>Grommet:</b>	Fluorosilicone or varnac
<b>Interfacial O-Ring:</b>	Fluorosilicone or nitrile.
<b>Blind Mating System:</b>	Guides, stainless steel, passivated; mounting plate and float screws, steel with zinc plate and dichromate seal.
<b>Mounting Bracket:</b>	Brass with tin plate. B2 type has insulating surface on printed board side.
<b>Push-On Fastener:</b>	Spring tempered copper alloy.

#### ELECTRICAL CHARACTERISTICS:

<b>Contact Current Rating:</b>	25 amps. continuous, derated per IEC 512-3, Test 5b.
<b>Initial Contact Resistance:</b>	0.003 ohms max. per IEC 512-2, Test 2b.
<b>After 1000 Operations:</b>	0.007 ohms max. per IEC 512-2, Test 2b.
<b>Insulation Resistance:</b>	5 G ohms per IEC 512-2, Test 3a, Method A.
<b>Voltage Proof:</b>	2000 Vrms per IEC 512-2, Test 4a, Method C.
<b>Creepage Distance:</b>	0.157 inch (4 mm) minimum.
<b>Clearance Distance:</b>	0.125 inch (3.2 mm) minimum.
<b>Working Temperature:</b>	-55°C to +125°C.
<b>Working Voltage:</b>	Designed to meet VDE 250V~/300V=== UL 600VAC, CSA 250VAC and IEC 440V.

#### SHIELDED CONTACT TECHNICAL CHARACTERISTICS:

See page 24.

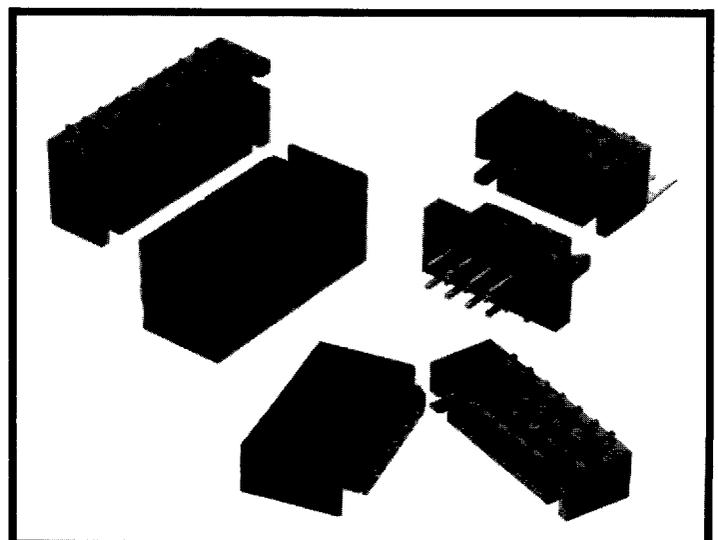
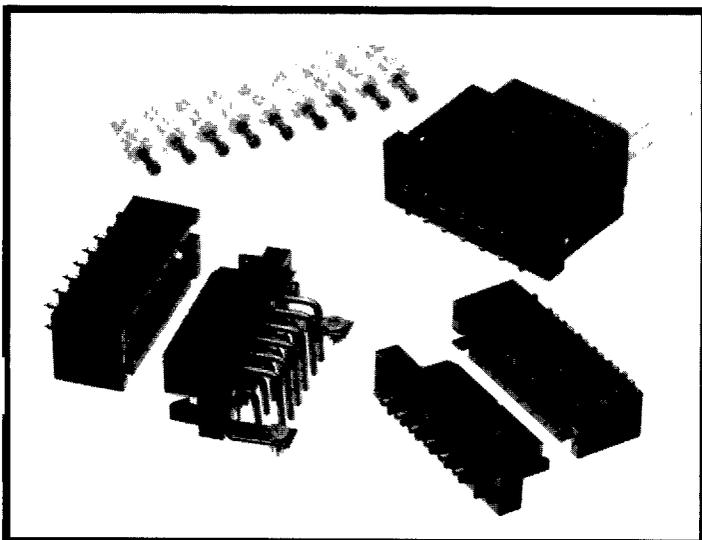
#### MECHANICAL CHARACTERISTICS:

<b>Removable Contacts:</b>	Insert contact to rear face of insulator, release from front face of insulator. Size 16, 0.062 inch (1.57mm) diameter male contact Female contact "closed entry" design for highest reliability.
<b>Fixed Contacts:</b>	Size 16, 0.062 inch (1.57mm) diameter male contact. Female contact has "closed entry" design for highest reliability.
<b>Contact Retention in Insulator:</b>	15 lbs. (67N) per IEC 512-8, Test 15a.
<b>Contact Terminations:</b>	Crimp or solder removable contacts from wire sizes 12 AWG (4.0 mm <sup>2</sup> ) through 32 AWG (0.3 mm <sup>2</sup> ). Straight and 90° solder printed board mount, 0.062 inch (1.57 mm) tail diameter Compliant termination press-fit.
<b>Contact Insertion and Withdrawal Forces:</b>	8 oz. (2.2N) nominal per contact.
<b>Connection Systems:</b>	Connector provides cable to cable, cable to printed board, cable to panel mount and printed board to printed board application.
<b>Blind Mating System:</b>	Panel mount connector provides lead-in for 0.100 inch (2.54 mm) axial misalignment.
<b>Sequential Mating System:</b>	Cable and printed board mount connectors. Male contacts provide as many as three mating lengths
<b>Environmental Connector:</b>	Cable and printed board mount connectors provide for a water tight seal.
<b>Locking System:</b>	Insulators provide locking between cable to cable, cable to printed board and cable to panel mount applications.
<b>Polarizations:</b>	Provided in insulator design. Further polarization in cable connectors can be provided by mixing male contacts in female insulators and female contacts in male insulators.
<b>Mounting to Printed Board:</b>	Rapid installation push-on fasteners.
<b>Mechanical Operations:</b>	1000 operations per IEC 512-5.

U.L. Recognized  
File #E49351

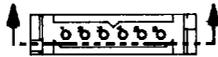
CSA Recognized  
File #LR54219

TUV BAUART LICENSE  
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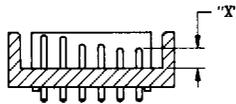
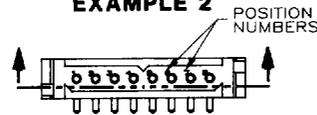
**POWR-LOK SERIES**  
**SEQUENTIAL MATING SYSTEM**

**EXAMPLE 1**



Length Code	"X" Contact length
A	0.370 (9.40)
B	0.330 (8.38)
C	0.310 (7.87)
D	0.290 (7.37)
E	0.250 (6.35)

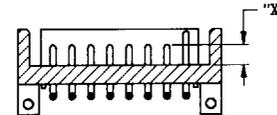
**EXAMPLE 2**



TYPICAL PART NUMBER  
PLA06M300A1-E1B2B3D4D

Mating Connector Type	Contact Options
Board to Board	B,D,E
Board to Cable*	A,C,E
Cable to Cable*	A,D

\* Removable contacts for cable connectors must be ordered separately.



TYPICAL PART NUMBER  
PLA08M4B00C1-D8B

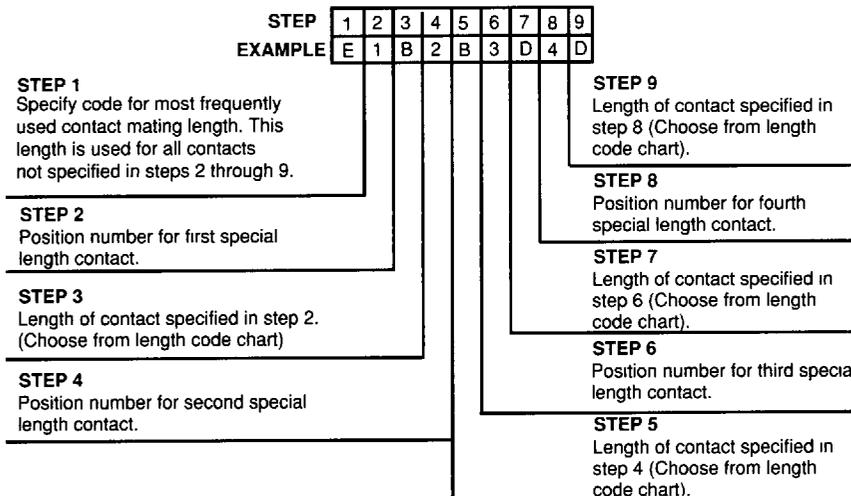
**SEQUENTIAL MATING SYSTEM**  
**CRIMP REMOVABLE CONTACT PART NUMBERS**

Wire size AWG/(mm <sup>2</sup> )	Length Code "A"	Length Code "C"	Length Code "D"	Length Code "E"
12-14 (4.0-2.5)	MC112N-133 3	MC112N-133 2	MC112N-133.1	MC112N-133 0
16-18-20 (1.5-1.0-0.5)	MC116N-133 3	MC116N-133 2	MC116N-133 1	MC116N-133 0

Due to contact float in cable connectors, consideration must be given to the mating connector. Connector mating combinations and suggested contact lengths are shown above.

**SELECTION GUIDE FOR ORDERING DIFFERENT CONTACT LENGTHS**  
**STEP 8 OF ORDERING INFORMATION**

SEE ORDERING INFORMATION ON PAGE 31  
FOR STEPS 1 THROUGH 7 TO ORDER SEQUENTIAL MATING SYSTEM CONNECTORS



Dimensions are in inches (millimeters).  
All dimensions are subject to change.