



GREYHOUND2000 (GRS2000) Standard

Next-generation 19-inch Industrial Switch

Product Bulletin



The industrial-grade GREYHOUND2000 addresses today's most demanding applications with very high fiber port density and configurable port modules that adapt to various connectivity scenarios.

- **Advanced configurability and flexibility**, the highest port count of any rugged Belden industrial Ethernet switch.
- **High uptime and network stability** with support for Precision Time Protocol (PTPv2), hardware prepared for Parallel Redundancy Protocol (PRP) and High-Availability Seamless Redundancy (HSR) Protocol.
- **Ruggedized for harsh conditions** with a temperature range of -40°C to 70°C (up to +85°C for 16h dry heat) and in accordance with IEC 60068-2-2 electromagnetic (EMC) standards.



Key Features

- Up to 34 ports per device, including four eight-port Fast Ethernet and Gigabit Ethernet (FE/GE) media modules.
- Port options for RJ45, small form-factor pluggable (SFP) or DST/DSC fixed fiber connections, plus two 1/2.5/10 GE SFP uplink ports.
- Option for redundant power supplies for maximum uptime and continuous operation
 - » **Power supply 1:** Low Voltage (24-48 VDC)*, High Voltage (60-250 VDC or 100-240 VAC)
 - » **Power supply 2:** not equipped, Low Voltage (24-48 VDC)*, High Voltage (60-250 VDC or 100-240 VAC)
- Enhanced Layer 2 and Layer 3 features through the Hirschmann Operating System (HiOS).
- Precise synchronization through PTPv2 for stringent real-time requirements and seamless PRP*/HSR* redundancy protocols.
- State-of-the-art cybersecurity features developed according to the certified IEC 62443 Secure Product Development Lifecycle Process.

GREYHOUND2000's high port density is ideal for industrial organizations making the shift to digital automation and meeting the demands of mission-critical environments.

Your Benefits

As industrial organizations take advantage of digital transformation, demand for Ethernet-based fiber communication is at an all-time high.

GREYHOUND2000 meets the moment and sets new standards for ruggedized 19" switches.

With a robust design, the future-ready GREYHOUND2000 can evolve as networks' power and bandwidth demands rise. A range of connectivity options and high port count make this switch flexible enough to map to a variety of industrial network designs while allowing a smooth shift away from legacy equipment.

Applications

Network uptime and reliability are top priorities in mission-critical industrial environments. GREYHOUND2000 addresses these needs by supporting various redundancy protocols and providing enhanced security features with the HiOS platform.

Additionally, this switch's very high fiber port density is essential for high-demand applications, such as converting legacy substations to digital in power transmission and distribution (PT&D).

A successor to the MACH1000 family, GREYHOUND2000 is the next generation of innovation. Future-proof industrial networks with advanced features, improved performance, and cutting-edge technology and transition from classic generation switches.

Markets

By meeting the intense demands of the PT&D industry, along with IEC 62443-4-1 and IEC 62443-4-2* standards, GREYHOUND2000 surpasses the essential ruggedization and security requirements of many sectors.

GREYHOUND2000 is ideal for conventional power transmission and distribution, mass transit and rail systems, process industries, and energy.



GREYHOUND GRS2000 Standard Switch

Selection of Popular Part Numbers and Product Configurations

Part Number	Type	Product Description
942-336-003*	GRS2030-24TX/2SFP-1HV-2A	2 x 1 Gbit/s SFP + 24 x 10/100 Mbit/s TX, 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals
942-336-004*	GRS2030-26SFP-1HV-2A	2 x Gbit/s SFP + 24 x 100 Mbit/s SFP, 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals
942-336-005*	GRS2030-12TX/14SFP-1HV-2A	2 x 1 Gbit/s SFP + 12 x 100 Mbit/s SFP + 12 x 10/100 Mbit/s TX, 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals
942-336-025*	GRS2040-12TX/4SFP-2HV-2A	4 x 1 Gbit/s SFP + 12 x Gbit/s TX, redundant 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals
942-336-030*	GRS2040-32TX/2SFP-2HV-2A	2 x 1 Gbit/s SFP + 32 x Gbit/s TX, redundant 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals
942-336-031*	GRS2040-34SFP-2HV-2A	34 x 1 Gbit/s SFP, redundant 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals
942-336-032*	GRS2040-16TX/18SFP-2HV-2A	18 x 1 Gbit/s SFP + 16 x Gbit/s TX, redundant 100-240 VAC power supply, -40°C to +70°C, HiOS L2A, Substation + UL Approvals

NOTE: These are the prominent technical specifications. For complete technical specifications visit: catalog.belden.com

GREYHOUND GRS2000 Standard Switch



Type	GRS2000	GRS2100
Description	GREYHOUND20000 industrial managed Gigabit Ethernet Switch with up to 10 Gigabit uplinks, 19" Rack mouting, according to IEEE 802.3, Store-and-Forward-Switching	
Port Type and Quantity	<p>Ports in total up to 34: ports on front (GRS2000) or ports on rear (GRS2100)</p> <p>up to 4 modules selectable with port options:</p> <ul style="list-style-type: none"> • 8 x 10/100/1000 Mbits TX RJ45 • 8 x FE/GE SFP • 6 x FE DSC/DST • 4 x 10/100/1000 Mbits TX RJ45 + 4 x FE/GE SFP <p>up to 2 uplink ports 1/2.5/10 GE SFP(+)</p>	
Additional Interfaces:		
Micro SD card slot	1 x Micro SD card slot to connect the auto-configuration adapter ACA41	
Power Requirements:		
Operating Voltage	Power supply 1: 24-48 VDC*, 60-250 VDC or 100-240 VAC Power supply 2: 24-48 VDC*, 60-250 VDC or 100-240 VAC, not equipped	
Power Consumption	Basic unit with power supply 45W	
Ambient Conditions:		
Operating Temperature	-40°C to +70°C (Includes 16 h @ 85 °C dry heat)	
Conformal Coating	Optional	
Mechanical Construction:		
Dimensions (W x H x D)	448 x 44 x 344 mm	
Weight	7 kg	
Protection Class	IP30	
Software		
Supported HiOS Software Levels	Layer 2 Standard (L2S), Layer 2 Advanced (L2A), Layer 3 Advanced with Unicast Routing (L3A-UR), Layer 3 Advanced with Multicast Routing (L3A-MR)*	
Approvals		
Basis Standard	CE, FCC, UKCA, RCM	
Safety of Industrial Control Equipment	EN62368-1, cUL62368-1*	
Substation	IEC 61850-3, IEEE1613	
Marine	GL/DNV (Germanischer Lloyd/Det Norske Veritas)*	
Hazardous Locations	UL-121201 Class 1 Div. 2, ATEX Zone 2*	
Transportation	NEMA TS2, EN 50121-4	
Security	IEC 62443-4-2*	
Accessories		
Accessories to order separately	Network Management Industrial HiVision, ACA41, SFP(+) transceivers	

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GREYHOUND GRS2000 Standard Switch Configurator



Characteristic	Attribute value	Description	Characteristic	Attribute value	Description	
Product	GRS	GRS - GREYHOUND Switch Standard	Number of Transceiver: PG 3	0	N/A	
Series	2	2 - GREYHOUND2000 Series		2	2 x Pre-assembled Transceivers	
Technology	0	0 - Front: Management, Ethernet; Rear: Power supply		4	4 x Pre-assembled Transceivers	
	1	1 - Front: Management; Rear: Ethernet, power supply		6	6 x Pre-assembled Transceivers	
Data rate	6*	PG 1 - 4: FE/GE, PG 5: 1/10GE		8	8 x Pre-assembled Transceivers	
	5	PG 1 - 4: FE/GE, PG 5: 1/2.5GE	Port Types: PG 2 & 4 (bottom)	0	PG2: N/A, PG4: N/A	
	4	PG 1 - 4: FE/GE, PG 5: GE		A	PG2: 4 x TX + 4 x SFP, PG4: N/A	
		3		PG 1 - 4: FE, PG 5: GE	B	PG2: 4 x TX + 4 x SFP, PG4: 8 x TX
		2		PG 1 - 4: FE	C	PG2: 4 x TX + 4 x SFP, PG4: 8 x SFP
Port Types: PG 1 & 3 (top)	A	PG1: 4 x TX + 4 x SFP, PG3: N/A		D	PG2: 4 x TX + 4 x SFP, PG4: 6 x DSx	
	B	PG1: 4 x TX + 4 x SFP, PG3: 8 x TX		E	PG2: 8 x SFP, PG4: N/A	
	C	PG1: 4 x TX + 4 x SFP, PG3: 8 x SFP		F	PG2: 8 x SFP, PG4: 8 x TX	
	D	PG1: 4 x TX + 4 x SFP, PG3: 6 x DSx		G	PG2: 8 x SFP, PG4: 8 x SFP	
	E	PG1: 8 x SFP, PG3: N/A		H	PG2: 8 x SFP, PG4: 6 x DSx	
	F	PG1: 8 x SFP, PG3: 8 x TX		I	PG2: 6 x DSx, PG4: N/A	
	G	PG1: 8 x SFP, PG3: 8 x SFP		J	PG2: 6 x DSx, PG4: 8 x TX	
	H	PG1: 8 x SFP, PG3: 6 x DSx		K	PG2: 6 x DSx, PG4: 6 x DSx	
	I	PG1: 6 x DSx, PG3: N/A		L	PG2: 8 x TX, PG4: N/A	
	J	PG1: 6 x DSx, PG3: 8 x TX	M	PG2: 8 x TX, PG4: 8 x TX		
	K	PG1: 6 x DSx, PG3: 6 x DSx	Fiber Ports & SFPs: PG 2	0	N/A	
L	PG1: 8 x TX, PG3: N/A	A		DSC: 100 Mbit MM		
M	PG1: 8 x TX, PG3: 8 x TX	B		DST: 100 Mbit MM		
Fiber Ports & SFPs: PG 1	0	N/A		C	DSC: 100 Mbit SM	
	A	DSC: 100 Mbit MM		D	DST: 100 Mbit SM	
	B	DST: 100 Mbit MM		F	SFP: 100 Mbit MM/LC EEC	
	C	DSC: 100 Mbit SM	H	SFP: 100 Mbit SM/LC EEC		
	D	DST: 100 Mbit SM	J	SFP: 1 Gbit SX/LC EEC		
	F	SFP: 100 Mbit MM/LC EEC	L	SFP: 1 Gbit LX/LC EEC		
H	SFP: 100 Mbit SM/LC EEC	Number of Transceiver: PG 2	0	N/A		
J	SFP: 1 Gbit SX/LC EEC		2	2 x Pre-assembled Transceivers		
L	SFP: 1 Gbit LX/LC EEC		4	4 x Pre-assembled Transceivers		
Number of Transceiver: PG 1	0		N/A	6	6 x Pre-assembled Transceivers	
	2		2 x Pre-assembled Transceivers	8	8 x Pre-assembled Transceivers	
	4	4 x Pre-assembled Transceivers	Fiber Ports & SFPs: PG 4	0	N/A	
	6	6 x Pre-assembled Transceivers		A	DSC: 100 Mbit MM	
	8	8 x Pre-assembled Transceivers		B	DST: 100 Mbit MM	
Fiber Ports & SFPs: PG 3	0	N/A		C	DSC: 100 Mbit SM	
	A	DSC: 100 Mbit MM		D	DST: 100 Mbit SM	
	B	DST: 100 Mbit MM		F	SFP: 100 Mbit MM/LC EEC	
	C	DSC: 100 Mbit SM		H	SFP: 100 Mbit SM/LC EEC	
	D	DST: 100 Mbit SM		J	SFP: 1 Gbit SX/LC EEC	
	F	SFP: 100 Mbit MM/LC EEC	L	SFP: 1 Gbit LX/LC EEC		
	H	SFP: 100 Mbit SM/LC EEC				
	J	SFP: 1 Gbit SX/LC EEC				
L	SFP: 1 Gbit LX/LC EEC					

GREYHOUND GRS2000 Standard Switch Configurator



Characteristic	Attribute value	Description	Characteristic	Attribute value	Description
Number of Transceiver: PG 4	0	N/A	Approvals / Declarations	Z9	CE; FCC; EN61131; EN62368-1
	2	2 x Pre-assembled Transceivers		Y9*	"Z9" + UL62368-1
	4	4 x Pre-assembled Transceivers		X9*	"Z9" + cUL62368-1 + cUL121201
	6	6 x Pre-assembled Transceivers		W9*	"Z9" + ATEX/IECEX
	8	8 x Pre-assembled Transceivers		V9	"Z9" + IEC 61850-3, IEEE1613
Port Types: PG 5 (right)	0	N/A		VY*	"V9" + UL62368-1
	A	PG5: 2 x SFP		VU*	"V9" + UL62368-1 + GL, (DNV)
SFPs: PG 5	0	N/A		VT*	"V9" + UL62368-1 + EN50121-4
	J	SFP: 1 Gbit SX/LC EEC		U9*	"Z9" + GL, (DNV)
	L	SFP: 1 Gbit LX/LC EEC		UY*	"U9" + UL62368-1
	M	SFP: 2.5 Gbit MM/LC EEC		UX*	"U9" + cUL62368-1 + cUL121201
	N	SFP: 2.5 Gbit SM/LC EEC		UW*	"U9" + ATEX/IECEX
	P	SFP: 2.5 Gbit SM-/LC EEC		UT*	"U9" + UL62368-1 + EN50121-4
Number of Transceiver: PG 5	0	N/A		T9	"Z9" + EN50121-4
	2	2 x Pre-assembled Transceivers		TY*	"T9" + UL62368-1
Operating Temperature Range	S	Standard 0 to +60 °C	Customization	HH	Standard
	C	Standard 0 to +60 °C with CC	Software Configuration	E	Empty
	T	Extended -40 °C to +70 °C		B	Diagnostic User (BDEW)
	E	Extended -40 °C to +70 °C with CC	Software Level	2S	HiOS Layer 2 Standard
Voltage Range PSU 1*	K	60 to 250 VDC and 100 to 240 VAC		2A	HiOS Layer 2 Advanced
	F*	24 to 48 VDC		3A	HiOS Layer 3 Advanced
Voltage Range PSU 2	9	N/A	Software Packages	99	Reserved
	K	60 to 250 VDC and 100 to 240 VAC		UR	IPv4 Unicast Routing Package
	F*	24 to 48 VDC		MR*	IPv4 Multicast Routing Package

* coming soon

Potential GRS2000 Configuration Options

	Frontside	Backside	Frontside	Backside
Type	GRS2000 with front facing ports 28 GE TX + 4 GE SFP + 2 2.5GE Uplinks		GRS2000 with front facing ports 32 GE SFP + 2 2.5GE Uplinks	
Product Code	GRS2050-B0000-M0000-A00-TKKEEHHE2A99		GRS2050-G0000-G0000-A00-TKKEEHHE2A99	
Type	GRS2000 with rear facing ports 20 GE TX + 12 GE SFP + 2 2.5GE Uplinks		GRS2000 with rear facing ports 16 GE SFP + 12MM DST + 2 2.5GE Uplinks	
Product Code	GRS2150-C0000-M0000-A00-TKKEEHHE2A99		GRS2150-G0000-KB6A6-A00-TKKEEHHE2A99	