



HIRSCHMANN

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Product information GRS1020 - Fast Ethernet - GRS1020-16T9SM9Z9HHSE2S06.0.

Industrial Ethernet:Ruggedized Switches:GREYHOUND Gigabit Ethernet-Switch, media modules and power supplies:with HiOS 6.0/7.0:GRS1020 - Fast Ethernet

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Name	GRS1020 - Fast Ethernet
	Industrial managed Fast Ethernet Switch, 19" rack mount, fanless Design according to IEEE 802.3, Store-and-Forward-Switching; HiOS Layer 2 Standard
Delivery informations	
Availability	available
Product description	
Type	GRS1020-16T9SM9Z9HHSE2S06.0.
Order No.	GRS1020-16T9SM9Z9HHSE2S06.0.
Description	Industrial managed Fast Ethernet Switch, 19" rack mount, fanless Design according to IEEE 802.3, Store-and-Forward-Switching; HiOS Layer 2 Standard
Port type and quantity	24 FE ports; Basic unit: 16 FE ports, expandable with media module with 8 FE ports; Ports in total up to 24 16 FE TX ports
More Interfaces	
V.24 interface	1 x RJ45 socket
USB interface	1 x USB to connect the AutoConfiguration Adapter ACA21/22-USB
Power supply/signaling contact	power supply 3 pin plug-in terminal block signal contact 2 pin plug-in terminal block; not assembled
Network size - length of cable	
Twisted pair (TP)	0 m ... 100 m
Multimode fiber (MM) 50/125 µm	see SFP modules
Multimode fiber (MM) 62.5/125 µm	see SFP modules
Single mode fiber (SM) 9/125 µm	see SFP modules
Single mode fiber (LH) 9/125 µm (long haul transceiver)	see SFP modules
Network size - cascadiability	
Line - / star topology	any
Ring structure (HIPER-Ring) quantity switches	MRP, RSTP
Power requirements	
Operating voltage	110 - 250 VDC (88V - 288 VDC) and 110 - 240 VAC (88 - 276 VAC);
Power consumption	7.5 W
Power output in Btu (IT) h	26
Mechanical construction	
Dimensions (W x H x D)	448 x 44 x 315 mm
Weight	3.7 kg
Protection class	IP30
Mounting	rack mount
Software	
Management	Dual Software Image Support; TFTP; SFTP; SCP; LLDP (802.1AB); LLDP-MED; SSHv2; V.24; HTTP; HTTPS; Traps; SNMP v1/v2/v3; Telnet
Diagnostics	Management Address Conflict Detection; MAC Notification; Signal Contact; Device Status Indication; TCPDump; LEDs; Syslog; Persistent Logging on ACA; Port Monitoring with Auto-Disable; Link Flap Detection; Overload Detection; Duplex Mismatch Detection; Link Speed and Duplex Monitoring; RMON (1,2,3,9); Port Mirroring 1:1; Port Mirroring 8:1; Port Mirroring N:1; System Information; Self-Tests on Cold Start; Copper Cable Test; SFP Management; Configuration Check Dialog; Switch Dump; Snapshot Configuration Feature
Configuration	Automatic Configuration Undo (roll-back); Configuration Fingerprint; Text-based Configuration File (XML); BOOTP/DHCP Client with Auto-Configuration; DHCP Server: per Port; DHCP Server: Pools per VLAN; AutoConfiguration Adapter ACA21/22 (USB); HiDiscovery; DHCP Relay with Option 82; Command Line Interface (CLI); CLI Scripting; Full-featured MIB Support; Web-based Management; Context-sensitive Help
Security	MAC-based Port Security; Port-based Access Control with 802.1X; Guest/unauthenticated VLAN; Integrated Authentication Server (IAS); RADIUS VLAN Assignment; Automatic Denial-of-Service Prevention; Access to Management restricted by VLAN; Device Security Indication; Audit Trail; CLI Logging; HTTPS Certificate Management; Restricted Management Access; Appropriate Use Banner; Configurable Password Policy; Configurable Number of Login Attempts; SNMP Logging; Multiple Privilege Levels; Local User Management; Remote Authentication via RADIUS; User Account Locking
Redundancy functions	Link Aggregation with LACP; Link Backup; Media Redundancy Protocol (MRP) (IEC62439-2); RSTP 802.1D-2004 (IEC62439-1); RSTP Guards
Industrial Profiles	IEC61850 Protocol (MMS Server, Switch Model); ModbusTCP
Time synchronisation	SNTP server and client, Buffered RTC
Miscellaneous	Manual Cable Crossing; Port Power Down

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Switching	Independent VLAN Learning; Fast Aging; Static Unicast/Multicast Address Entries; QoS / Port Prioritization (802.1D/p); TOS/DSCP Prioritization; Interface Trust Mode; CoS Queue Management; Flow Control (802.3X); Egress Interface Shaping; Ingress Storm Protection; VLAN (802.1Q); VLAN Unaware Mode; Voice VLAN; IGMP Snooping/Querier per VLAN (v1/v2/v3); Unknown Multicast Filtering; Multiple VLAN Registration Protocol (MVRP); Multiple MAC Registration Protocol (MMRP); Multiple Registration Protocol (MRP); GARP VLAN Registration Protocol (GVRP); GMRP
Ambient conditions	
Operating temperature	0 °C ... 60 °C
Storage/transport temperature	-40 °C ... 70 °C
Relative humidity (non-condensing)	5 % ... 95 %
Mechanical stability	
IEC 60068-2-27 shock	15 g, 11 ms duration, 18 shocks
IEC 60068-2-6 vibration	1 mm, 2 Hz-13.2 Hz, 90 min.; 0.7 g, 13.2 Hz-100 Hz, 90 min.; 3.5 mm, 3 Hz-9 Hz, 10 cycles, 1 octave/min.; 1 g, 9 Hz-150 Hz, 10 cycles, 1 octave/min
EMC interference immunity	
EN 61000-4-2 electrostatic discharge (ESD)	8 kV contact discharge, 15 kV air discharge
EN 61000-4-3 electromagnetic field	35 V/m (80-2700 MHz); 1 kHz, 80% AM
EN 61000-4-4 fast transients (burst)	4 kV power line, 4 kV data line
EN 61000-4-5 surge voltage	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line, IEEE1613; power line 5 kV (line/earth)
EN 61000-4-6 conducted immunity	3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)
EN 61000-4-16 mains frequency voltage	30 V, 50 Hz continuous; 300 V, 50 Hz 1 s
EMC emitted immunity	
FCC CFR47 Part 15	FCC 47 CFR Part 15 Class A
EN 55022	EN 55022 Class A
Approvals	
Safety of industrial control equipment	EN61131, EN60950
Scope of delivery and accessories	
Scope of delivery	Device, terminal block, operating manual
Accessories to order separately	Terminal Cable, Network management Industrial HiVision, ACA22, SFP