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## Product information

**GRS1030 - Gigabit Ethernet -**

**GRS1030-16T9SM9Z9HHSE2S04.1.**

Industrial Ethernet:Ruggedized Switches:GREYHOUND Gigabit Ethernet Switch and Media Modules:GRS1030 - Gigabit Ethernet

Name	GRS1030 - Gigabit Ethernet
	
	Industrial managed Fast/Gigabit 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	GRS1030-16T9SM9Z9HHSE2S04.1.
Order No.	GRS1030-16T9SM9Z9HHSE2S04.1.
Description	Industrial managed Fast/Gigabit Ethernet Switch, 19" rack mount, fanless Design according to IEEE 802.3, Store-and-Forward-Switching; HiOS Layer 2 Standard
Port type and quantity	4x GE plus 24 FE ports; Basic unit: 4 FE/GE and 16 FE ports, expandable with media module with 8 FE ports 16 FE TX ports
More Interfaces	
V.24 interface	1 x RJ45 socket
USB interface	1 x USB to connect the AutoConfiguration Adapter ACA22-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 - cascability	
Line - / star topology	any
Power requirements	
Operating voltage	110 - 250 VDC (88V - 288VDC) and 110 - 240 VAC (88 - 276 VAC);
Power consumption	7,5 - 18W depending on variant;
Mechanical construction	
Dimensions (W x H x D)	448 x 44 x 315 mm
Weight	3.55kg - 3.8kg depending on variant
Protection class	IP30
Mounting	rack mount
Software	
Management	V.24 web-interface, Telnet, SSHv2, HTTP, HTTPS, TFTP, SCP, SFTP client, SNMP v1/v2/v3, Traps, LLDP-MED, SSH client
Diagnostics	LED, persistent logging, syslog, signal contact, device status indication, port mirroring N:1, RMON (1,2,3,9), TCPDump, LLDP, SFP management (temperature, optical input and output power), switch dump, configuration check dialog, system information, self tests on cold start, Management Address Conflict Detection, Copper cable test, Port Monitor, duplex mismatch detection, snapshot configuration feature, SFLOW
Configuration	Command line interface (CLI), WEB based management, fully featured MIB support, BOOTP/DHCP client with auto configuration, DHCP option 82, DHCP server per port and pool per VLAN, HiDiscovery, auto-configuration adapter ACA22, Automatic configuration undo (roll-back), text based configuration file, CLI scripting, Telnet
Security	Enhanced encryption (>56 Bit, up to 256Bit DES) Management access; MAC based port security, Port-based access control with 802.1x, 802.1x enhancements with Guest/Unauthenticated VLAN and RADIUS VLAN assignment, Integrated Authentication Server (IAS), Basic wired-speed Ingress ACLs (MAC,IPv4) per port and per VLAN, Automatic Denial-of-Service Prevention, Restricted Management Access (ACLs), Different privilege levels, configurable password policies, configurable number of login attempts, account locking, HTTPS certificate management, CL/SNMP logging, Security Status Monitor, Audit Trail, Remote Authentication via RADIUS, Local User Management

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**Industrial Ethernet:Ruggedized Switches:GREYHOUND Gigabit Ethernet Switch and Media Modules:GRS1030 - Gigabit Ethernet**

<b>Redundancy functions</b>	MRP (Media Redundancy Protocol IEC62439-2), RSTP 802.1D-2004 (IEC62439-1), Link Aggregation (2 LAG), Link backup; default Standard
<b>Industrial Profiles</b>	IEC61850 protocol (MMS Server, Switch Model)
<b>Filter</b>	QoS (8 classes), CoS queue management, interface trust mode, TOS/DSCP prioritization, port priority (IEEE802.1D/p), VLAN (IEEE802.1Q), Voice VLAN, IGMP snooping/querier per VLAN (v1/v2/v3), unknown multicast filtering, independent VLAN learning, static unicast/multicast address entries, fast aging, MVR (Multiple VLAN Registration Protocol), MMRP (Multiple MAC Registration Protocol), MRP (Multiple Registration Protocol)
<b>Time synchronisation</b>	SNTP server and client, Buffered RTC
<b>Flow control</b>	Flow control (IEEE802.3X), egress interface shaping, ingress storm protection, Queue-Shaping / max. Queue Bandwidth
<b>Miscellaneous</b>	Port power down, cable crossing, dual software image support, VLAN unaware mode, access to management restricted by VLAN
<b>Ambient conditions</b>	
Operating temperature	0 °C ... 60 °C
Storage/transport temperature	-40 °C ... 70 °C
Relative humidity (non-condensing)	5 % ... 95 %
<b>Mechanical stability</b>	
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
<b>EMC interference immunity</b>	
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
<b>EMC emitted immunity</b>	
FCC CFR47 Part 15	FCC 47 CFR Part 15 Class A
EN 55022	EN 55022 Class A
<b>Approvals</b>	
Safety of industrial control equipment	EN61131, EN60950
<b>Scope of delivery and accessories</b>	
Scope of delivery	Device, terminal block, operating manual
Accessories to order separately	Terminal Cable, Network management Industrial HiVision, ACA22, SFP

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The complete information and data were available on user documentation. Mandatory information can only be obtained by a concrete query.