



## Product information GRS1040 - GRS1042-AT2ZTHL02U9HHSE2A9906.0.

Industrial Ethernet:Ruggedized Switches:GREYHOUND Gigabit Ethernet-Switch, media modules and power supplies:with HiOS 6.0/7.0:GRS1040	
<a href="https://catalog.beldensolutions.com:443/link/57078-24455-49846-433327-459805-459731/en/GRS1042-AT2ZTHL02U9HHSE2A9906.0/uistate">https://catalog.beldensolutions.com:443/link/57078-24455-49846-433327-459805-459731/en/GRS1042-AT2ZTHL02U9HHSE2A9906.0/uistate</a>	
Name	GRS1040
	Modular managed Industrial Switch, fanless design, 19" rack mount, according to IEEE 802.3
<b>Delivery informations</b>	
Availability	available
<b>Product description</b>	
Type	GRS1042-AT2ZTHL02U9HHSE2A9906.0.
Order No.	GRS1042-AT2ZTHL02U9HHSE2A9906.0.
Description	Modular managed Industrial Switch, fanless design, 19" rack mount, according to IEEE 802.3
Port type and quantity	Ports in total up to 28; Basic unit 12 fixed ports: 2 x GE/2.5GE SFP slot plus 10 x FE/GE TX ports; expandable with two media module slots; 8 FE/GE ports per module
<b>More Interfaces</b>	
V.24 interface	1 x RJ45 socket
USB interface	1 x USB to connect the AutoConfiguration Adapter ACA22-USB
SD-card slot	1 x SD card slot to connect the auto configuration adapter ACA31
Power supply/signaling contact	Power supply1: Power supply 3 pin plug-in terminal block, signal contact 2 pin plug-in terminal block; Power supply2: Power supply 2 pin plug-in terminal block; Hot Swappable power supplies
<b>Network size - length of cable</b>	
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
<b>Network size - cascading</b>	
Line - / star topology	any
<b>Power requirements</b>	
Operating voltage	Power supply input 1: 60 - 250 VDC and 110 - 240 VAC, 50 Hz - 60 Hz; possible power supply type K; Power supply input 2: 24 - 48 VDC or 48 - 54 VDC PoE; possible power supply types C or P (PoE)
Power consumption	Basic unit with one power supply 32 W
Power output in Btu (IT) h	110
<b>Mechanical construction</b>	
Dimensions (W x H x D)	444 x 44 x 354 mm
Weight	3600g
Protection class	IP30
Mounting	rack mount
<b>Software</b>	
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	Address Relearn Detection; MAC Notification; Signal Contact; Device Status Indication; TCPDump; LEDs; Syslog; Persistent Logging on ACA; Email Notification; 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 N:1/N:2; RSPAN; SFLOW; VLAN Mirroring; 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)IRADIUS VLAN Assignment; RADIUS Policy Assignment; Multi-Client Authentication per Port; MAC Authentication Bypass; DHCP Snooping; IP Source Guard; Dynamic ARP Inspection; Denial-of-Service Prevention; Ingress MAC-based ACL; Egress MAC-based ACL; Ingress IPv4-based ACL; Egress IPv4-based ACL; Time-based ACL; VLAN-based ACL; Ingress VLAN-based ACL; Egress VLAN-based ACL; ACL Flow-based Limiting; Access to Management restricted by VLAN; Device Security Indication; Audit Trail; CLI Logging; HTTPS Certificate Management; Restricted Management Access; Configurable Password Policy; Configurable Number of Login Attempts; SNMP Logging; Multiple Privilege Levels; Local User Management; Remote Authentication via RADIUS; User Account Locking

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<b>Redundancy functions</b>	HIPER-Ring (Ring Switch); HIPER-Ring over Link Aggregation; Link Aggregation with LACP; Link Backup; Media Redundancy Protocol (MRP) (IEC62439-2); MRP over Link Aggregation; Sub Ring Manager; RSTP 802.1D-2004 (IEC62439-1); RSTP Guards; VRRP; VRRP Tracking; HiVRRP (VRRP enhancements)
<b>Industrial Profiles</b>	EtherNet/IP protocol, IEC61850 protocol (MMS Server, Switch Model), ModbusTCP, PROFINET IO Protocol
<b>Time synchronisation</b>	PTPv2 Transparent Clock two-step; PTPv2 Boundary Clock; Buffered Real Time Clock; SNTP Client; SNTP Server
<b>Miscellaneous</b>	PoE (802.3AF); PoE+ (802.3AT); PoE+ Manual Power Management; PoE Fast Startup; Manual Cable Crossing; Port Power Down
<b>Switching</b>	Traffic Shaping; 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; IP Ingress DiffServ Classification and Policing; IP Egress DiffServ Classification and Policing; Queue-Shaping / Max. Queue Bandwidth; Flow Control (802.3X) Egress Interface Shaping; Ingress Storm Protection; VLAN (802.1Q) Protocol-based VLAN; VLAN Unaware Mode; Voice VLAN; MAC-based VLAN; IP subnet-based 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)
<b>Ambient conditions</b>	
<b>Operating temperature</b>	-40 °C ... 70 °C
<b>Note</b>	IEC 60068-2-2 Dry Heat Test +85°C 16 Hours
<b>Storage/transport temperature</b>	-40 °C ... 85 °C
<b>Relative humidity (non-condensing)</b>	5 % ... 95 %
<b>Mechanical stability</b>	
<b>IEC 60068-2-27 shock</b>	15 g, 11 ms duration, 18 shocks
<b>IEC 60068-2-6 vibration</b>	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>	
<b>EN 61000-4-2 electrostatic discharge (ESD)</b>	8 kV contact discharge, 15 kV air discharge
<b>EN 61000-4-3 electromagnetic field</b>	35 V/m (80-2700 MHz); 1 kHz, 80% AM
<b>EN 61000-4-4 fast transients (burst)</b>	4 kV power line, 4 kV data line
<b>EN 61000-4-5 surge voltage</b>	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line, IEEE1613: power line 5 kV (line/earth)
<b>EN 61000-4-6 conducted immunity</b>	3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)
<b>EN 61000-4-16 mains frequency voltage</b>	30 V, 50 Hz continuous; 300 V, 50 Hz 1 s
<b>EMC emitted immunity</b>	
<b>FCC CFR47 Part 15</b>	FCC 47 CFR Part 15 Class A
<b>EN 55022</b>	EN 55022 Class A
<b>Approvals</b>	
<b>Safety of industrial control equipment</b>	EN61131, EN60950
<b>Shipbuilding</b>	Germanischer Lloyd, DNV
<b>Scope of delivery and accessories</b>	
<b>Scope of delivery</b>	Device, terminal block, operating manual
<b>Accessories to order separately</b>	Terminal Cable, Network Management Industrial HiVision, ACA22, ACA31, SFP