


Product: [GRS103-6TX/4C-2HV-2A](#) 

Managed 10-port Fast Ethernet 19" Switch with 2 media slots, redundant PSU



Product Description

26 port Fast Ethernet/Gigabit Ethernet Industrial Workgroup Switch (fix installed: 4 x GE, 6 x FE; via Media Modules 16 x FE), managed, Software HiOS 2A, Store-and-Forward-Switching, fanless Design, redundant power supply

Technical Specifications

Product description

Name:	GRS103-6TX/4C-2HV-2A
Port type and quantity:	26 Ports in total, 4 x FE/GE TX/SFP and 6 x FE TX fix installed; via Media Modules 16 x FE

More Interfaces

Power supply/signaling contact:	2 x IEC plug / 1 x plug-in terminal block, 2-pin, output manual or automatic switchable (max. 1 A, 24 V DC bzw. 24 V AC)
Local Management and Device Replacement:	USB-C

Network size - length of cable

Twisted pair (TP):	0-100 m
Single mode fiber (SM) 9/125 µm:	Fast Ethernet: see SFP LWL module M-FAST SFP-SM/LC and M-FAST SFP-SM+/LC; Gigabit Ethernet: see SFP LWL module M-SFP-LX/LC
Single mode fiber (LH) 9/125 µm (long haul transceiver):	Fast Ethernet: see SFP LWL module M-FAST SFP-LH/LC; Gigabit Ethernet: see SFP LWL module M-SFP-LH/LC and M-SFP-LH+/LC
Multimode fiber (MM) 50/125 µm:	Fast Ethernet: see SFP LWL module M-FAST SFP-MM/LC; Gigabit Ethernet: see SFP LWL module M-SFP-SX/LC and M-SFP-LX/LC
Multimode fiber (MM) 62.5/125 µm:	Fast Ethernet: see SFP LWL module M-FAST SFP-MM/LC; Gigabit Ethernet: see SFP LWL module M-SFP-SX/LC and M-SFP-LX/LC

Network size - cascadiability

Line - / star topology:	any
-------------------------	-----

Power requirements

Operating Voltage:	100 - 240 VAC, 47 - 63 Hz (redundant)
Power consumption:	expected max 13 W (without media modules)
Power output in BTU (IT)/h:	expected max 44 (without media modules)

Software

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, GARP VLAN Registration Protocol (GVRP), Voice VLAN, GARP Multicast Registration Protocol (GMRP), 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)
Redundancy:	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
Management:	DNS Client, Dual Software Image Support, TFTP, SFTP, SCP, LLDP (802.1AB), LLDP-MED, SSHv2, OPC-UA Server, HTTP, HTTPS, IPv6 Management, 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, 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 1:1, Port Mirroring 8:1, Port Mirroring N:1, Port Mirroring N:2, System Information, Self-Tests on Cold Start, Copper Cable Test, SFP Management, Configuration Check Dialog, Switch Dump

Configuration:	Automatic Configuration Undo (roll-back), Text-based Configuration File (XML), Backup config on a remote server when saving, Clear config but keep IP settings, BOOTP/DHCP Client with Auto-Configuration, DHCP Server: per Port, DHCP Server: Pools per VLAN, , HiDiscovery, DHCP Relay with Option 82, USB-C Management support, Command Line Interface (CLI), CLI Scripting, CLI script handling over ENVM at boot, Full-featured MIB Support, Context-sensitive Help, HTML5 based Management
Security:	MAC-based Port Security, Port-based Access Control with 802.1X, Guest/unauthenticated VLAN, Integrated Authentication Server (IAS), RADIUS VLAN Assignment, Denial-of-Service Prevention, LDAP, VLAN-based ACL, Ingress VLAN-based ACL, Basic ACL, 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, Password change on first login
Time synchronisation:	Buffered Real Time Clock, SNTP Client, SNTP Server
Industrial Profiles:	IEC61850 Protocol (MMS Server, Switch Model), ModbusTCP
Miscellaneous:	Manual Cable Crossing, Port Power Down

Ambient conditions

MTBF (Telecordia SR-332 Issue 3) @ 25°C:	452 044 h
Operating temperature:	-10+60 °C
Storage/transport temperature:	-20+70 °C
Relative humidity (non-condensing):	5-90 %

Mechanical construction

Dimensions (WxHxD):	448 mm x 44 mm x 310 mm (without fixing bracket)
Weight:	approx 3.85 kg
Mounting:	19" control cabinet
Protection class:	IP20

Mechanical stability

IEC 60068-2-6 vibration:	3.5 mm, 5 Hz – 8.4 Hz, 10 cycles, 1 octave/min.; 1 g, 8.4 Hz-200 Hz, 10 cycles, 1 octave/min
IEC 60068-2-27 shock:	15 g, 11 ms duration, 18 shocks

EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD):	6 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field:	20 V/m (80-2700 MHz), 10V/m (2.7-6 GHz); 1 kHz, 80% AM
EN 61000-4-4 fast transients (burst):	2 kV power line, 2 kV data line
EN 61000-4-5 surge voltage:	power line: 2 kV (line/earth), 1 kV (line/line); data line: 1 kV
EN 61000-4-6 Conducted Immunity:	3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)

EMC emitted immunity

EN 55032:	EN 55032 Class A
FCC CFR47 Part 15:	FCC 47CFR Part 15, Class A

Approvals

Basis Standard:	CE, FCC, EN61131
-----------------	------------------

Reliability

Guarantee:	60 months (please refer to the terms of guarantee for detailed information)
------------	---

Scope of delivery and accessories

Accessories to Order Separately:	Network management software Industrial HiVision (943156-xxx), Bracket for fastening the casing (2 pcs.) (943 943-001) Bracket, long (+50 mm/1.97 in) for fastening the casing (2 pcs.) (943 943-101) Non-heating-appliance cable (Euro model) (942 271-001) 2-pin terminal block (50 pieces) (943 845-010) 2-pin terminal block with screw lock (50 pieces) (943 845-009) 3-pin High Voltage Interlock terminal block (50 pcs.) (943 845-0089) Protection cap for RJ45 socket (50 pieces) (943 936-001) Protection cap for SFP slot (25 pieces) (943 942-001) AutoConfiguration Adapter ACA22-USB-C (EEC) (942-239-001)
Scope of delivery:	GRS103 device, Safety and general information sheet, 2-pin terminal block for signal contact, 2 × Cover panel for media module slot

Further Instructions

Product Documentation:	https://www.doc.hirschmann.com
Certificates:	https://www.doc.hirschmann.com/certificates.html

History

Update and Revision:	Revision Number: 0.59 Revision Date: 07-24-2023
----------------------	---

Variants

Item #	Type
942298004	GRS103-6TX/4C-2HV-2A

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.