HIRSCHMANN
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Product: BRS20-4TX/2SFP-HL

Configurator: BRS20-4TX/2SFP-HL

Configurator Description

The Hirschmann BOBCAT Switch is the first of its kind to enable real-time communication using TSN. To effectively support the increasing real-time communication requirements in industrial settings, a strong Ethernet network backbone is essential. This compact managed switches allow for expanded bandwidth capabilities by adjusting your SFPs from 1 to 2.5 Gigabit – requiring no change to the appliance.

Technical Specifications

Product description

Type	BRS20-4TX/2SFP-HL (Product code: BRS20-0600Z6Z6-STCX99HHSESXX.X.XX)
Description	Managed Industrial Switch for DIN Rail, fanless design Fast Ethernet Type
Software Version	HiOS 09.6.00
Part Number	942170029
Port type and quantity	6 Ports in total: 4x 10/100BASE TX / RJ45; 2x 100Mbit/s fiber ; 1. Uplink: 1 x SFP Slot (100 Mbit/s) ; 2. Uplink: 1 x SFP Slot (100 Mbit/s)

More Interfaces

Power supply/signaling contact	1 x plug-in terminal block, 6-pin
Digital Input	1 x plug-in terminal block, 2-pin
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	see SFP fiber modules see SFP fiber modules
Single mode fiber (LH) 9/125 µm (long haul transceiver)	see SFP fiber modules see SFP fiber modules
Multimode fiber (MM) 50/125 µm	see SFP fiber modules see SFP fiber modules
Multimode fiber (MM) 62.5/125 µm	see SFP fiber modules see SFP fiber modules

Network size - cascadibility

Line - / star topology	any

Power requirements

Operating Voltage	2 x 12 VDC ... 24 VDC
Power consumption	7 W
Power output in BTU (IT)/h	24

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, Queue-Shaping / Max. Queue Bandwidth, Flow Control (802.3X), Egress Interface Shaping, Ingress Storm Protection, Jumbo Frames, VLAN (802.1Q), 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	HIPER-Ring (Ring Switch), Link Aggregation with LACP, Link Backup, Media Redundancy Protocol (MRP) (IEC62439-2), Redundant Network Coupling, RSTP 802.1D-2004 (IEC62439-1), RSTP Guards

Management	Dual Software Image Support, TFTP, SFTP, SCP, LLDP (802.1AB), LLDP-MED, SSHv2, HTTP, HTTPS, Traps, SNMP v1/v2/v3, Telnet, IPv6 Management , OPC UA Server
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, 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), Configuration Fingerprint, 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, AutoConfiguration Adapter ACA21/22 (USB), HiDiscovery, 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	ISASecure CSA / IEC 62443-4-2 certified, 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, DoS Prevention Drop Counter, 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	PTPv2 Transparent Clock two-step, PTPv2 Boundary Clock, BC with Up to 8 Sync / s , 802.1AS, Buffered Real Time Clock, SNTP Client, SNTP Server
Industrial Profiles	EtherNet/IP Protocol, IEC61850 Protocol (MMS Server, Switch Model), Modbus TCP, PROFINET Protocol
Miscellaneous	Digital IO Management, Manual Cable Crossing, Port Power Down

Ambient conditions

MTBF (Telecordia SR-332 Issue 3) @ 25°C	5 720 732 h
Operating temperature	0-+60
Storage/transport temperature	-40-+70 °C
Relative humidity (non-condensing)	1- 95 %

Mechanical construction

Dimensions (WxHxD)	57 mm x 138 mm x 115 mm
Weight	420 g
Housing	PC-ABS
Mounting	DIN Rail
Protection class	IP30

Mechanical stability

IEC 60068-2-6 vibration	5 Hz ... 8,4 Hz with 3,5 mm amplitude; 2 Hz ... 13,2 Hz with 1 mm amplitude; 8,4 Hz ... 200 Hz with 1 g; 13,2 Hz ... 100 Hz with 0,7 g
IEC 60068-2-27 shock	15 g, 11 ms duration

EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD)	6 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field	10 V/m (80-2000 MHz); 5 V/m (2000-2700 MHz); 3 V/m (5100-6000 MHz)
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) and 1 kV (line/line); data line: 2 kV
EN 61000-4-6 Conducted Immunity	10 V (150 kHz-80 MHz)

EMC emitted immunity

EN 55022	EN 55032 Class A
FCC CFR47 Part 15	FCC 47CFR Part 15, Class A

Approvals

Basis Standard	CE, FCC, EN61131, EN62368-1
Safety of industrial control equipment	cUL61010
Hazardous locations	ISA12.12.01

Reliability

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

Scope of delivery and accessories

Accessories	AutoConfiguration Adapter ACA22-USB-C (EEC) 942239001; 6-pin terminal block with screw lock (50 pieces) 943 845-013; 2-pin terminal block with screw lock (50 pieces) 943 845-009; Industrial HiVision Network Management Software 943 156-xxx
Scope of delivery	1 × Device, 1 × Safety and general information sheet, 1 × Terminal block for supply voltage and signal contact, 1 × Terminal block for the digital input depending on device variant, 2 × Ferrites with key depending on device variant

Further Instructions

Product Documentation	https://www.doc.hirschmann.com/index.html
Certificates	https://www.doc.hirschmann.com/certificates.html
Software Download	https://hirschmann-support.belden.com/en-US/downloads

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