



Product information
Modular OpenRail Fast Ethernet switch
8-24 ports -MS20-1600SAAEHH08.0.
934 435-003

Name	
Name	Modular OpenRail Fast Ethernet switch 8-24 ports
Delivery informations	
Availability	not yet available
Product description	
Description	16 port Fast Ethernet switch, managed, software Layer 2 Enhanced, for DIN rail store-and-forward-switching, fanless design
Port type and quantity	Fast Ethernet ports in total: 16; Gigabit Ethernet ports: 0
Type	MS20-1600SAAEHH08.0.
Order No.	943 435-003
More Interfaces	
Power supply/signaling contact	2 x plug-in terminal block, 4-pin
V.24 interface	1 x RJ11 socket
USB interface	1 x USB to connect the AutoConfiguration Adapter ACA21-USB
Network size - cascading	
Line - / star topology	any
Ring structure (HIPER-Ring) quantity switches	50 (reconfiguration time < 0.3 sec.)
Power requirements	
Operating voltage	24 V DC (18-32) V
Current consumption at 24 V DC	500 mA
Current consumption at 48 V DC	325 mA
Power output in Btu (IT) h	41.0
Software	
Management	Serial interface, web interface, SNMP V1/V2, Hivision file transfer SW HTTP/TFTP
Diagnostics	LEDs, log-file, relay contact, RMON, port mirroring 1:1, topology discovery 802.1AB, address conflict detection, network error detection, SFP diagnostic [temperature, optical input and output power (µW and dBm)], Trap for configuration saving and changing, duplex mismatch detection, disable learning.
Configuration	Command line interface (CLI), TELNET, BootP, DHCP, DHCP option 82, HIDiscovery, easy device exchange with auto-configuration adapter ACA21-USB (automatic software and/or configuration upload), automatic invalid configuration undo, configuration signature (water marking)
Security	Port Security (IP und MAC) with multiple addresses, SNMP V3 (no encryption)
Redundancy functions	HIPER-ring (ring structure), MRP (IEC-ring functionality), RSTP 802.1D-2004, redundant network/ring coupling, MRP and RSTP in parallel, redundant 24 V power supply
Filter	QoS 4 classes, port prioritisation (IEEE 802.1D/p), VLAN (IEEE 802.1Q), shared VLAN learning, multicast (IGMP Snooping/Querier), multicast detection unknown multicast, broadcastlimiter, fast aging
Industrial Profiles	EtherNet/IP and PROFINET (2.2 PDEV, GSDML stand-alone generator, automatic device exchange) profiles included, configuration and diagnostic via automation software tools like e.g. STEP7, or Control Logix
Time synchronisation	Sntp server, PTP / IEEE 1588
Flow control	Flow control 802.3x, port priority 802.1D/p, priority (TOS/DIFFSERV)
Presettings	Standard
Ambient conditions	
Operating temperature	0 °C ... 60 °C
Storage/transport temperature	-40 °C ... 70 °C
Relative humidity (non-condensing)	10 % ... 95 %
MTBF	36.6 years (MIL-HDBK-217F)
Protective paint on PCB	No



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Mechanical construction	
Dimensions (W x H x D)	202 mm x 133 mm x 100 mm (140 at 48V module)
Mounting	DIN Rail
Weight	880 g
Protection class	IP20
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)	6 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field	10 V/m (80-1000 MHz)
EN 61000-4-4 fast transients (burst)	2 kV power line, 1 kV data line
EN 61000-4-5 surge voltage	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line
EN 61000-4-6 conducted immunity	3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)
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	cUL 508
Hazardous locations	ISA 12.12.01 Class 1 Div. 2
Shipbuilding	n/a
Railway norm	n/a
Substation	n/a
Transportation	NEMA TS2
Scope of delivery and accessories	
Scope of delivery	Device, 2 x terminal block, operating manual, CD

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