



MS20-1600SAAEHH02.0.

Industrial Networking:Industrial Ethernet:OpenRail System:Modular:Switches software release 2.0

Product description	
Description	ETHERNET/Fast ETHERNET-switch according to IEEE 802.3 compact, managed, Industrial switch for DIN rail store-and-forward-switching, fanless design, Software Layer 2 Enhanced
Port type and quantity	Fast ethernet ports in total: 16; Gigabit Ethernet Ports: 0
Type	MS20-1600SAAEHH02.0.
Order No.	MS20-1600SAAEHH02.0.
More Interfaces	
Power supply/signaling contact	1 x plug-in terminal block, 4-pin
V.24 interface	1 x RJ11 socket
USB interface	1 x to connect auto-configuration adapter ACA21-USB
Network size - cascability	
Line - / star topology	any
Ring structure (HIPER-Ring)	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
Software	
Management	Serial interface, web-interface, SNMP V1/V2, HiVision file transfer SW HTTP/TFTP
Diagnostics	LEDs (power, link status, data, 100 Mbit/s, autonegotiation, full-duplex, error, redundancy management, ring-port, LED test), log-file, syslog, signal contact, RMON (statistics, history, alarm, events), port mirroring, topology discovery 802.1AB
Configuration	Command line interface (CLI), TELNET, BootP, DHCP, DHCP option 82, HiDiscovery, auto-configuration adapter (ACA21-USB, ACA11 read support)
Security	Port security (IP and MAC), SNMP V3 (no encryption)
Redundancy functions	HIPER-ring (ring structure), RSTP 802.1w, redundant network/ring coupling, dual homing, redundant 24 V power supply, redundant signal contact
Filter	QoS 4 classes, prioritisation (IEEE 802.1D/p), VLAN (IEEE 802.1Q), multicast (IGMP snooping/querier), multicast detection unknown multicast, broadcast limiter, fast aging
Realtime	SNTP server, PTP / IEEE 1588 support with media module
Flow control	Flow control 802.3x, port priority 802.1D/p, priority (TOS/DIFFSERV)
Ambient conditions	
Operating temperature	0° to +60°C
Storage/transport temperature	-40° to +70°C
Relative humidity (non-condensing)	10% to 95%
MTBF	36.5 years
Mechanical construction	
Dimensions (W x H x D)	202 x 133 x 100 (140 at 48 V module)
Mounting	DIN Rail
Weight	880 g (970 g at 48 V module)
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.; 0.7g, 13,2 Hz - 100 Hz, 90 min.; 3.5 mm, 3 Hz - 9 Hz, 10 cycles, 1 octave/min.; 1g, 9 Hz - 150 Hz, 10 cycles, 1 octave/min.
EMC interference immunity	
EN 61000-4-2 electrostatic discharge (ESD)	6 kV contact discharge, 8kV 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: 2kV (line/earth), 1kV (line/line), 1kV 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 CFR47 Part 15
EN 55022	EN 55022 Class A
Approvals	
Safety of industrial control equipment	cUL 508
Hazardous locations	cUL 1604 Class1 Div 2
Scope of delivery and accessories	
Scope of delivery	Device, terminal block, operating manual
Accessories to order separately	Rail power supply RPS 30, RPS 80 EEC or RPS 120 EEC, terminal cable, network management HiVision, auto-configuration adapter (ACA21-USB), 19 installation frame"