



## MS20-0800SAAPHH03.0.

Industrial Networking:Industrial Ethernet:OpenRail System:Modular:Switches Software Release 3.0

### 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 Professional
Port type and quantity	Fast ethernet ports in total: 8; Gigabit Ethernet Ports: 0
Type	MS20-0800SAAPHH03.0.
Order No.	MS20-0800SAAPHH03.0.

### 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) quantity switches	50 (reconfiguration time < 0.3 sec.)

### Power requirements

Operating voltage	24 V DC (18-32) V
Current consumption at 24 V DC	208 mA
Current consumption at 48 V DC	155 mA
Power output in Btu (IT) h	17.1

### Software

Management	Serial interface, web-interface, SNMP V1/V2, HiVision file transfer SW HTTP/TFTP
Diagnostics	LEDs, log-file, syslog, signal contact, RMON, port mirroring, topology discovery 802.1AB, cable diagnostic (TX), disable learning
Configuration	Command line interface (CLI), TELNET, BootP, DHCP, DHCP option 82, HiDiscovery, auto-configuration adapter (ACA21-USB, ACA11 read support)
Security	Port security (IP und MAC), SNMP V3, SSH, authentication (802.1x)
Redundancy functions	HIPER-ring (ring structure), MRP (IEC-ring functionality), RSTP 802.1w, redundant network/ring coupling, dual homing, link aggregation, redundant 24 V power supply, redundant signal contact
Industrial Profiles	configuration and diagnostic via automation software tools like e.g. STEP7, or Control Logix
Realtime	SNTP server, PTP / IEEE 1588 support with media module, realtime clock with energy buffer
Flow control	Flow control 802.3x, port priority 802.1D/p, priority (TOS/DIFFSERV), prio (MAC/IP), prio mapping (TOS Layer2), traffic shaping (unicast, multicast, broadcast) ingress / egress
Presettings	Standard

### Ambient conditions

Operating temperature	0° to +60°C
Storage/transport temperature	-40° to +70°C
Relative humidity (non-condensing)	10% to 95%
MTBF	49.6 years

### Mechanical construction

Dimensions (W x H x D)	125 x 133 x 100 (140 at 48 V module)
Mounting	DIN Rail
Weight	610 g (700 g at 48 V module)

Protection class	IP20
<b>Mechanical stability</b>	
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.
<b>EMC interference immunity</b>	
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)
<b>EMC emitted immunity</b>	
FCC CFR47 Part 15	FCC CFR47 Part 15
EN 55022	EN 55022 Class A
<b>Approvals</b>	
Safety of industrial control equipment	cUL 508
Hazardous locations	cUL 1604 Class1 Div 2
Germanischer Lloyd	-
Substation	-
Railway norm	-
<b>Scope of delivery and accessories</b>	
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"