



MS20-1600SAAPHH03.0.

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: 16; Gigabit Ethernet Ports: 0

Type MS20-1600SAAPHH03.0.

Order No. MS20-1600SAAPHH03.0.

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 - cascadability

Line - / star topology any

Ring structure (HIPER-Ring) quantity 50 (reconfiguration time < 0.3 sec.) switches

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, 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 34.2 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
Germanischer Lloyd	-
Substation	-
Railway norm	-
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"