HIRSCHMANN
A **BELDEN** BRAND

Product: MSP40-00200SCY999HHE2A

Configurator: MSP40-00200SCY999HHE2A

Configurator Description

The MSP switch product range offers complete modularity and various high-speed port options with up to 10 Gbit/s. Optional Layer 3 software packages for dynamic unicast routing (UR) and dynamic multicast routing (MR) offer you an attractive cost benefit – "Just pay for what you need." Thanks to Power over Ethernet Plus (PoE+) support, terminal equipment can also be powered cost-effectively.

Technical Specifications

Product description

Type	MSP40-20-2A (Product Code: MSP40-00200SCY999HHE2AXX.X.XX)
Description	Modular Full Gigabit Ethernet Industrial Switch for DIN Rail, Fanless design , Software HiOS Layer 2 Advanced
Part Number	942076012
Port type and quantity	Gigabit Ethernet ports in total: 16; 2.5 Gigabit Ethernet ports: 4 (Gigabit Ethernet ports in total: 16; 10 Gigabit Ethernet ports: 2)

More Interfaces

Power supply/signaling contact	2 x plug-in terminal block, 4-pin
V.24 interface	1 x RJ45 socket
SD-card slot	1 x SD card slot to connect the auto configuration adapter ACA31
USB interface	1 x USB to connect auto-configuration adapter ACA21-USB

Network size - cascadibility

Line - / star topology	any

Power requirements

Operating Voltage	24 V DC (18-32) V
Power consumption	19.0 W
Power output in BTU (IT)/h	65

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, IP Ingress DiffServ Classification and Policing, IP Egress DiffServ Classification and Policing, Queue-Shaping / Max. Queue Bandwidth, Flow Control (802.3X), Egress Interface Shaping, Ingress Storm Protection, Jumbo Frames, VLAN (802.1Q), Protocol-based VLAN, VLAN Unaware Mode, GARP VLAN Registration Protocol (GVRP), Voice VLAN, MAC-based VLAN, IP subnet-based 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), HIPER-Ring over Link Aggregation, Link Aggregation with LACP, Link Backup, Media Redundancy Protocol (MRP) (IEC62439-2), MRP over Link Aggregation, Redundant Network Coupling, Sub Ring Manager, RSTP 802.1D-2004 (IEC62439-1), MSTP (802.1Q), RSTP Guards
Management	DNS Client, Dual Software Image Support, TFTP, SFTP, SCP, LLDP (802.1AB), LLDP-MED, SSHv2, V.24, HTTP, HTTPS, Traps, SNMP v1/v2/v3, Telnet
Diagnostics	Management Address Conflict Detection, MAC Notification, Signal Contact, Device Status Indication, TCPDump, LEDs, Syslog, Persistent Logging on ACA, Email Notification, 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, RSPAN, SFLOW, VLAN Mirroring, Port Mirroring N:2, System Information, Self-Tests on Cold Start, Copper Cable Test, SFP Management, Configuration Check Dialog, Switch Dump, Snapshot Configuration Feature
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 ACA31 (SD card), AutoConfiguration Adapter ACA21/22 (USB), HiDiscovery, DHCP Relay with Option 82, Command Line Interface (CLI), CLI Scripting, CLI script handling over ENVM at boot, Full-featured MIB Support, Web-based Management, Context-sensitive Help, HTML5 based Management
Security	MAC-based Port Security, Port-based Access Control with 802.1X, Guest/unauthenticated VLAN, Integrated Authentication Server (IAS), RADIUS VLAN Assignment, RADIUS Policy Assignment, Multi-Client Authentication per Port, MAC Authentication Bypass, Format options for MAC authentication bypass, DHCP Snooping, IP Source Guard, Dynamic ARP Inspection, Denial-of-Service Prevention, LDAP, Ingress MAC-based ACL, Egress MAC-based ACL, Ingress IPv4-based ACL, Egress IPv4-based ACL, Time-based ACL, VLAN-based ACL, Ingress VLAN-based ACL, Egress VLAN-based ACL, ACL Flow-based Limiting, 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, Buffered Real Time Clock, SNTP Client, SNTP Server BC with Up to 8 Sync / s
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	1 259 712 h
Operating temperature	0-+60 °C
Storage/transport temperature	-40-+70 °C
Relative humidity (non-condensing)	5-95 %

Mechanical construction

Dimensions (WxHxD)	314 x 148 x 142 mm
Weight	2.4 kg
Mounting	DIN rail
Protection class	IP20

Mechanical stability

IEC 60068-2-6 vibration	5 Hz - 8.4 Hz with 3.5 mm amplitude; 8.4 Hz-150 Hz with 1 g
IEC 60068-2-27 shock	15 g, 11 ms duration, 18 shocks

EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD)	± 4 kV contact discharge; ± 8 kV air discharge
EN 61000-4-3 electromagnetic field	10 V/m (80 MHz-3000 MHz)
EN 61000-4-4 fast transients (burst)	± 2 kV power line; ± 4 kV data line
EN 61000-4-5 surge voltage	power line: ± 2 kV (line/earth), ± 1 kV (line/line); data line: ± 1 kV (line/earth)
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
Safety of industrial control equipment	EN 60950, cUL508, UL60950
Transportation	NEMA TS2

Scope of delivery and accessories

Accessories	MICE Switch Power Media Modules MSM; Rail Power Supply RPS 30, RPS 60/48V EEC, RPS 80, RPS90/48V HV, RPS90/48V LV, RPS 120 EEC; USB to RJ45 Terminal cable; Sub-D to RJ45 Terminal Cable Auto Configuration Adapter (ACA21, ACA31); Industrial HiVision Network Management System; 19" Installation frame
Scope of delivery	Device (backplane and power module), 2 x terminal block, General safety instructions