



MS4128-L2P

Industrial Networking:Industrial Ethernet:MICE:Switches

Product description	
Description	Power MICE, modular, managed Industrial ETHERNET Switch, Layer 2 Switch with Software Professional. Ethernet (10 Mbit/s) and Fast-ETHERNET (100 Mbit/s) and Gigabit-ETHERNET (1000 Mbit/s)
Port type and quantity	up to 28 ports above media modules practicable, 4 X 1000 BASE-SX with SFP modules or 4 x 10/100/1000 BASE-TX and 24 Fast-ETHERNET (100 Mbit/s) ports (with MB-2T)
Type	MS4128-L2P
Order No.	943 009-101
More Interfaces	
Power supply/signaling contact	2 plug-in terminal blocks, 4-pin
V.24 interface	1 x RJ11 socket
USB interface	1 USB interface to connect auto-configuration adapter (ACA21-USB)
Network size - cascading	
Line - / star topology	any
Ring structure (HIPER-Ring)	50 switches (reconfiguration time < 50 ms typ. at LWL)
Power requirements	
Operating voltage	24 V DC (-25% to +30%)
Current consumption at 24 V DC	630 mA (without media modules)
Power consumption	15 W (without media modules)
Service	
	serial interface, web interface, SNMP V1/V2/V3, HiVision, file transfer SW HTTP/TFTP
Diagnostics	LEDs, signal contact (24V DC / 1 A), syslog, logfile, RMON, port mirroring, Topology Discovery IEEE 802.1AB (LLDP)
Configuration	command line interface (CLI), TELNET, BootP, DHCP, DHCP Option 82, HiDiscovery, auto-configuration adapter (ACA21-USB)
Security	authentication 802.1x, port-security IP and MAC, SNMP V3
Other services	QoS 8 classes, port prioritisation IEEE 802.1D/p, VLAN IEEE 802.1Q, Multicast (IGMP Snooping/Querier), GMRP, Broadcast- UC,-MC-Limiter, Fast Aging, Flow Control IEEE 802.3x, PTP client (Precision Time Protocol, IEEE 1588), SNTP (Simple Network Time Protocol)
Redundancy	
Redundancy functions	HIPER-Ring (ring structure), RSTP IEEE 802.1w (rapid spanning tree protocol), redundant network/ring coupling (master/receiver functionality), dual homing (master/receiver functionality), redundant 24 V power supply
Ambient conditions	
Operating temperature	0 °C to +60 °C
Storage/transport temperature	-25 °C to +70 °C
Relative humidity (non-condensing)	10% to 95%
MTBF	24.2 years; MIL-HDBK 217F: Gb 25 °C
Mechanical construction	
Dimensions (W x H x D)	315 mm x 134 mm x 140 mm
Mounting	DIN Rail 35
Weight	2,2 kg
Protection class	IP 20
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 CFR47 Part 15 Class A
EN 55022	EN 55022 Class A
Approvals	
Safety of industrial control equipment	cUL 508
Hazardous locations	cUL 1604 Class 1 Div 2
Germanischer Lloyd	Germanischer Lloyd
Railway norm	EN50121-4
Scope of delivery and accessories	
Scope of delivery	device, 2terminal blocks, operating manual
Accessories to order separately	rail power supply RPS 30, RPS 80 EEC or RPS 120 EEC, terminal cable, HiVision network management, auto-configuration adapter (ACA21-USB), 19" installation frame, labels ML-MS2/MM, additional backplane MB-2T