



M-SFP-LH+/LC

Industrial Networking:Industrial Ethernet:MICE:Gigabit ETHERNET Media Modules

Product description	
Description	SFP Fiberoptic Gigabit Ethernet Transceiver for: MICE media modules, MM4-4TX/SFP and MM4-2TX/SFP, OpenRail RS30-Switches, MACH 4002 48+4G, SmartLION and GigaLION.
Port type and quantity	1 x 1000BASE-LX with LC connector
Type	M-SFP-LH+/LC
Order No.	943 049-001
Network size - length of cable	
Single mode fiber (LH)9/125 µm (long haul transceiver)	44 - 120 km 13 - 32 dB link budget at 1550 nm A = 0.25 dB/km, 2 dB reserve, D = 19 ps/(nm x km)
Power requirements	
Operating voltage	power supply via the switch
Power consumption	1 W
Service	
Diagnostics	optical input and output power, transceiver temperature
Ambient conditions	
Operating temperature	0 °C to +60 °C
Storage/transport temperature	-40°C to +85°C
Relative humidity (non-condensing)	10% to 95%
Mechanical construction	
Dimensions (W x H x D)	20 mm x 18 mm x 50 mm
Mounting	SFP slot
Weight	40 g
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.; 0.7g, 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, 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), 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 Class A
EN 55022	EN 55022 Class A
Approvals	
Safety of industrial control equipment	cUL 508 (E175531)
Hazardous locations	cUL 1604 Class 1 Div 2 (E203960)
Germanischer Lloyd	Germanischer Lloyd (43 109-02 HH)
Scope of delivery and accessories	
Scope of delivery	SFP module