



## MM3-1FXL2/3TX1

Industrial Networking:Industrial Ethernet:MICE:ETHERNET / Fast-ETHERNET Media Modules

<b>Product description</b>	
Description	Media module for MICE Switches (MS...), 100BASE-TX and 100BASE-FX single mode F/O
Port type and quantity	1 x 100BASE-FX, SM cables, 1550 nm, SC sockets 3 x 10/100BASE-TX, TP cables, RJ45 sockets, auto-crossing, auto-negotiation, auto-polarity
Type	MM3-1FXL2/3TX1
Order No.	943 763-101
<b>Network size - length of cable</b>	
Twisted pair (TP)	0 -100 m
Single mode fiber (LH)9/125 µm (long haul transceiver)	24 -86.6 km 7 - 29 dB link budget at 1550 nm A = 0.3 dB/km, 3 dB reserve, D = 19 ps/(nm x km)
<b>Power requirements</b>	
Operating voltage	power supply via the backplane of the MICE switch
Power consumption	3.4 W
<b>Service</b>	
Diagnostics	LEDs (power, link status, data, 100 Mbit/s, auto-negotiation, full duplex, ring port, LED test)
<b>Ambient conditions</b>	
Operating temperature	0 °C to +60 °C standard ( optional -40°C to +70°C)
Storage/transport temperature	-40 °C to +70 °C
Protective paint on PCB	optional
Relative humidity (non-condensing)	10% to 95%
MTBF	76.6 years; MIL-HDBK 217F: Gb 25 °C
<b>Mechanical construction</b>	
Dimensions (W x H x D)	38 mm x 134 mm x 118 mm
Mounting	Backplane
Weight	180 g
Protection class	IP 20
<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, 8 kV air discharge
EN 61000-4-3 electromagnetic field	10 V/m
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)
<b>EMC emitted immunity</b>	
FCC CFR47 Part 15	FCC CFR47 Part 15 Class A
EN 55022	EN 55022 Class A
<b>Approvals</b>	
Safety of industrial control equipment	cUL 508 (E175531)
Hazardous locations	cUL 1604 Class 1 Div 2 (E203960)

Germanischer Lloyd optional

Railway norm optional

Substation optional

## Scope of delivery and accessories

Scope of delivery module, operating manual

Accessories to order separately ML-MS2/MM labels