



## MM3-4FXM2

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

| Product description                        |                                                                                                                                                            |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                                | Media module for MICE Switches (MS...), 100Base-FX multi-mode F/O                                                                                          |
| Port type and quantity                     | 4 x 100Base-FX, MM cable, SC sockets                                                                                                                       |
| Type                                       | MM3-4FXM2                                                                                                                                                  |
| Order No.                                  | 943 764-101                                                                                                                                                |
| Network size - length of cable             |                                                                                                                                                            |
| Multimode fiber (MM) 50/125 µm             | 0 - 5000 m<br>8 dB link budget at 1300 nm<br>A = 1 dB/km, 3 dB reserve, B = 800 MHz x km                                                                   |
| Multimode fiber (MM) 62.5/125 µm           | 0 - 4000 m<br>11 dB link budget at 1300 nm<br>A = 1 dB/km, 3 dB reserve, B = 500 MHz x km                                                                  |
| Power requirements                         |                                                                                                                                                            |
| Operating voltage                          | power supply via the backplane of the MICE switch                                                                                                          |
| Power consumption                          | 7 W                                                                                                                                                        |
| Service                                    |                                                                                                                                                            |
| Diagnostics                                | LEDs (power, link status, data, 100 Mbit/s, full duplex, ring port, LED test)                                                                              |
| Ambient conditions                         |                                                                                                                                                            |
| Operating temperature                      | 0 °C to +60 °C                                                                                                                                             |
| Storage/transport temperature              | -40 °C to +70 °C                                                                                                                                           |
| Relative humidity (non-condensing)         | 10% to 95%                                                                                                                                                 |
| MTBF                                       | 59.5 years; MIL-HDBK 217F: Gb 25 °C                                                                                                                        |
| Mechanical construction                    |                                                                                                                                                            |
| Dimensions (W x H x D)                     | 38 mm x 134 mm x 118 mm                                                                                                                                    |
| Mounting                                   | DIN Rail 35 mm                                                                                                                                             |
| Weight                                     | 180 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          |                                                                                                                                                            |

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|---------------------------------|--------------------------|
| Scope of delivery               | module, operating manual |
| Accessories to order separately | ML-MS2/MM labels         |