



# HIRSCHMANN

A BELDEN BRAND

## Product information M-SFP-LX/LC

Industrial Ethernet: System Accessories: Fiberoptic Transceiver: SFP Gigabit-Ethernet Transceiver for media module: M-SFP-LX/LC

<http://www.e-catalog.beldensolutions.com/link/57078-24455-24544-24535-24529-38628/en/conf/uistate>

| Name                                       |  | M-SFP-LX/LC                                                                                                                                                                                                             |
|--------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            |  |                                                                                                                                        |
|                                            |  | SFP Fiberoptic Gigabit Ethernet Transceiver for: MICE media modules, MM4-4TX/SFP and MM4-2TX/SFP, OpenRail RS30-Switches, MACH 4000, SmartLION and GigaLION.                                                            |
| Delivery informations                      |  |                                                                                                                                                                                                                         |
| Availability                               |  | available                                                                                                                                                                                                               |
| Product description                        |  |                                                                                                                                                                                                                         |
| Description                                |  | SFP Fiberoptic Gigabit Ethernet Transceiver for: MICE media modules, MM4-4TX/SFP and MM4-2TX/SFP, OpenRail RS30-Switches, MACH 4000, SmartLION and GigaLION.                                                            |
| Port type and quantity                     |  | 1 x 1000BASE-LX with LC connector                                                                                                                                                                                       |
| Type                                       |  | M-SFP-LX/LC                                                                                                                                                                                                             |
| Order No.                                  |  | 943 015-001                                                                                                                                                                                                             |
| Network size - length of cable             |  |                                                                                                                                                                                                                         |
| Multimode fiber (MM) 50/125 µm             |  | 0 - 550 m,<br>0 - 11 dB link budget at 1310 nm<br>A = 1 dB/km, 3 dB reserve, B = 800 MHz x km<br>With f/o adapter in line with IEEE 802.3-2000 clause 38 (single-mode fiber offset-launch mode conditioning patch cord) |
| Multimode fiber (MM) 62.5/125 µm           |  | 0 - 550 m, 0 - 11 dB link budget at 1310 nm A = 1 dB/km, 3 dB reserve, B = 500 MHz x km With f/o adapter in line with IEEE 802.3-2000 clause 38 (single-mode fiber offset-launch mode conditioning patch cord)          |
| Single mode fiber (SM) 9/125 µm            |  | 0 m - 20 km,<br>0 - 11 dB link budget at 1310 nm<br>A = 0.4 dB/km, 3 dB reserve, D = 3.5 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%                                                                                                                                                                                                              |
| MTBF                                       |  | 13 888 889 Heures                                                                                                                                                                                                       |
| 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)                                                                                                                                                                         |



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#### EMC emitted immunity

|                   |                           |
|-------------------|---------------------------|
| FCC CFR47 Part 15 | FCC CFR47 Part 15 Class A |
|-------------------|---------------------------|

|          |                  |
|----------|------------------|
| EN 55022 | EN 55022 Class A |
|----------|------------------|

#### Approvals

|                                            |             |
|--------------------------------------------|-------------|
| Safety of information technology equipment | cUL 60950-1 |
|--------------------------------------------|-------------|

|              |                                                |
|--------------|------------------------------------------------|
| Shipbuilding | Germanischer Lloyd, ABS, BV, DNV, LR, KR, RINA |
|--------------|------------------------------------------------|

#### Scope of delivery and accessories

|                   |            |
|-------------------|------------|
| Scope of delivery | SFP module |
|-------------------|------------|

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