# FL MC 2000T SM40 SC - FO converters

2891318

https://www.phoenixcontact.com/us/products/2891318

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FO converter with SC duplex fiber optic connection (1300 nm) for converting 100Base-TX to single mode fiberglass with a maximum FO segment length of 40 km. Auto MDI(X) function and comprehensive link diagnostics. DIN rail mountable with wide operating temperature range.

## Commercial data

| | |
|---|---|
| Item number | 2891318 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | DN06 |
| Product key | DNC312 |
| GTIN | 4046356869607 |
| Weight per piece (including packing) | 308.7 g |
| Weight per piece (excluding packing) | 299.8 g |
| Customs tariff number | 85176200 |
| Country of origin | TW |

# Technical data

## Notes

Note on application

| | |
|---|---|
| Note on application | Only for industrial use |

## Product properties

| | |
|---|---|
| Product type | Media converter |
| MTTF | 79.22 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%) |
| Signal delay | 865 ns (Pass-through mode) |
| | 835 ns (Auto converter mode, 100 Mbps, static) |

## Electrical properties

| | |
|---|---|
| Electrical isolation | VCC // FE // Ethernet |
| Test voltage data interface/power supply | 1500 V AC (500 V AC, 1 minute) |

Supply

| | |
|---|---|
| Supply voltage range | 12 V DC ... 48 V DC |
| Nominal supply voltage | 24 V DC |
| Typical current consumption | 110 mA (24 V DC) |

## Output data

Switching

| | |
|---|---|
| Output name | Relay output |
| Output description | Alarm output |
| Number of outputs | 1 |
| Contact switching type | N/C contact |
| Maximum switching voltage | 24 V DC |
| Max. switching current | 100 mA |

## Connection data

Supply

| | |
|---|---|
| Connection method | Plug-in screw terminal block (COMBICON), redundancy possible |

## Interfaces

| | |
|---|---|
| Signal | Ethernet |

Data: optical FO

| | |
|---|---|
| Transmit capacity, minimum | -15 dBm |
| Transmit capacity, maximum | -8 dBm |
| Transmission length incl. 3 dB system reserve | 40 km (fiberglass with F-G 9/125 0.36 dB/km) |
| | 36 km (fiberglass with F-G 9/125 0.4 dB/km) |
| | 29 km (fiberglass with F-G 9/125 0.5 dB/km) |

| | |
|---|---|
| Connection method | SC duplex |
| Wavelength | 1310 nm |
| Minimum receiver sensitivity | -34 dBm |
| Maximum receiver sensitivity | 0 dBm |
| Transmission medium | Single-mode fiberglass |

Data: Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3

| | |
|---|---|
| Data rate | 10/100 Mbps |
| Serial transmission speed | 10/100 Mbps |
| Connection method | RJ45 jack, shielded |
| No. of channels | 1 |
| Transmission length | 100 m (twisted pair, shielded) |
| Transmission medium | Copper |
| Signal LEDs | LNK/ACT, 100 |
| Auto-negotiation modes | Auto |
| Link through | Link fault pass through |
| MDI-/MDI-X switchover | Auto-MDI(X) |

## Dimensions

| | |
|---|---|
| Width | 28 mm |
| Height | 110 mm |
| Depth | 70 mm |

## Material specifications

| | |
|---|---|
| Housing material | Aluminum |

## Mechanical tests

| | |
|---|---|
| Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6 | : 5g, 150 Hz, Criterion 3 |
| Shock in accordance with EN 60068-2-27/IEC 60068-2-27 | : 30g, 11 ms half-sine shock pulse |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 75 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | 4850 m |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 5 % ... 95 % (non-condensing) |
| Shock | 300 m/s², 11 ms (IEC 60068-2) |
| Air pressure (operation) | 66 kPa ... 108 kPa |
| Air pressure (storage/transport) | 66 kPa ... 108 kPa |

## Approvals

Conformity/Approvals

| | |
|---|---|
| Conformance | CE-compliant |
| UL, USA / Canada | Class I, Div. 2, Groups A, B, C, D |

## EMC data

| | |
|---|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |

Electrostatic discharge

| | |
|---|---|
| Standards/regulations | EN 61000-4-2 |

Electrostatic discharge

| | |
|---|---|
| Comments | Criterion B |

Electromagnetic HF field

| | |
|---|---|
| Standards/regulations | EN 61000-4-3 |

Electromagnetic HF field

| | |
|---|---|
| Comments | Criterion A |

Fast transients (burst)

| | |
|---|---|
| Standards/regulations | EN 61000-4-4 |

Fast transients (burst)

| | |
|---|---|
| Comments | Criterion A |

Surge current load (surge)

| | |
|---|---|
| Standards/regulations | EN 61000-4-5 |

Surge current load (surge)

| | |
|---|---|
| Comments | Criterion B |

Conducted interference

| | |
|---|---|
| Standards/regulations | EN 61000-4-6 |

Conducted interference

| | |
|---|---|
| Comments | Criterion A |

Emitted interference

| | |
|---|---|
| Standards/regulations | EN 55032 |

## Mounting

| | |
|---|---|
| Mounting type | DIN rail mounting |
| Mounting position | on horizontal DIN rail NS 35 in acc. with EN 60715 |

## Classifications

### ECLASS

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|---|---|
| ECLASS-13.0 | 19170411 |

### ETIM

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|---|---|
| ETIM 9.0 | EC001467 |

### UNSPSC

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|---|---|
| UNSPSC 21.0 | 43201500 |

## Environmental product compliance

EU RoHS

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|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c), 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-10 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

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|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |

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