

# FL MC 2000T SM20 SC - FO converters



2891317

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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 20 km. Auto MDI(X) function and comprehensive link diagnostics. DIN rail mountable with wide operating temperature range.

## Commercial data

Item number	2891317
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN06
Product key	DNC312
GTIN	4046356869591
Weight per piece (including packing)	310.5 g
Weight per piece (excluding packing)	302.3 g
Customs tariff number	85176200
Country of origin	TW

## Technical data

### Notes

#### Note on application

Note on application	Only for industrial use
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### Product properties

Product type	Media converter
MTTF	77.82 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
Maximum power dissipation for nominal condition	1.922 W
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
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### Interfaces

Signal	Ethernet
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#### Data: optical FO

Transmit capacity, minimum	-15 dBm
Transmit capacity, maximum	-8 dBm
Transmission length incl. 3 dB system reserve	20 km (fiberglass with F-G 9/125 0.36 dB/km)
Connection method	SC duplex

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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
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## 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/s <sup>2</sup> , 11 ms (IEC 60068-2)
Air pressure (operation)	66 kPa ... 108 kPa
Air pressure (storage/transport)	66 kPa ... 108 kPa

## Approvals

Conformity/Approvals

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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
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### Electrostatic discharge

Standards/regulations	EN 61000-4-2
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### Electrostatic discharge

Comments	Criterion B
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### Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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### Electromagnetic HF field

Comments	Criterion A
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### Fast transients (burst)

Standards/regulations	EN 61000-4-4
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### Fast transients (burst)

Comments	Criterion A
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### Surge current load (surge)

Standards/regulations	EN 61000-4-5
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### Surge current load (surge)

Comments	Criterion B
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### Conducted interference

Standards/regulations	EN 61000-4-6
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### Conducted interference

Comments	Criterion A
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### Emitted interference

Standards/regulations	EN 55032
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## Mounting

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

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## Classifications

### ECLASS

ECLASS-13.0

19170411

### ETIM

ETIM 9.0

EC001467

### UNSPSC

UNSPSC 21.0

43201500

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## Environmental product compliance

### EU RoHS

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

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