

# FL MC 2000E SM40 LC - FO converters



2891156

<https://www.phoenixcontact.com/us/products/2891156>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



FO converter with LC duplex fiber optic connection (1300 nm), for converting 100Base-TX to single mode fiberglass. Auto MDI(X) function. Comprehensive link diagnostics. DIN rail mountable, 12 ... 57 V DC supply. Meets IEC 61850-3 and IEEE 1613 standards.

## Your advantages

- Data transfer rates of 100 Mbps
- Auto MDI/MDI-X switch-over
- Link fault pass through (LFPT) function for easy connection monitoring
- Network structure according to IEC 61850
- IEEE 1613

## Commercial data

Item number	2891156
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN06
Product key	DNC312
GTIN	4046356914239
Weight per piece (including packing)	488.4 g
Weight per piece (excluding packing)	488.4 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	79.3 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
Signal delay	700 ns (Pass-through 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 ... 57 V DC
Nominal supply voltage	24 V DC 48 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
Conductor cross-section, flexible [AWG]	24 ... 12
Conductor cross-section AWG	24 ... 12
Tightening torque	5 Nm ... 7 Nm

### Interfaces

Signal	Ethernet
--------	----------

#### Data: optical FO

Transmit capacity, minimum	-5 dBm
Transmit capacity, maximum	0 dBm

# FL MC 2000E SM40 LC - FO converters



2891156

<https://www.phoenixcontact.com/us/products/2891156>

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	LC duplex
Wavelength	1310 nm
Minimum receiver sensitivity	-35 dBm
Maximum receiver sensitivity	-3 dBm
Transmission medium	Single-mode fiberglass

Data: Ethernet interface, 100Base-Tx in acc. with IEEE 802.3u

Data rate	100 Mbps
Serial transmission speed	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
Link through	Link fault pass through
MDI-/MDI-X switchover	Auto-MDI(X)
Data flow control/protocols	IEC 61850-3, IEEE 1613

## Dimensions

Width	30 mm
Height	130 mm
Depth	100 mm

## Material specifications

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

## Cable/line

FO cable

Fiber types	50/125 µm
	62.5/125 µm
	Fiberglass

## 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

# FL MC 2000E SM40 LC - FO converters



2891156

<https://www.phoenixcontact.com/us/products/2891156>

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

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
Noise immunity	IEC 61850-3, IEEE 1613, EN 61000-6-2: 2005

### Noise emission

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

## Mounting

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

# FL MC 2000E SM40 LC - FO converters



2891156

<https://www.phoenixcontact.com/us/products/2891156>

## Classifications

### ECLASS

ECLASS-13.0

19170411

### ETIM

ETIM 9.0

EC001467

### UNSPSC

UNSPSC 21.0

43201500

2891156

<https://www.phoenixcontact.com/us/products/2891156>

## 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)
SCIP	327f171a-26bd-4de2-8da8-67646f915ddb

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
 586 Fulling Mill Road  
 Middletown, PA 17057, United States  
 (+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)