MC 1000E-MM WDM A - FO converters

1330588

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Fiber optic converter with SC simplex connection (1310 nm) for 100Base-TX to multimode fiber optics, DIN rail mountable, extended temperature range, redundant power supply, IECEx, ATEX, UL HazLoc, IEC 61850, IEEE 1613, DNV.

Product description

The MC 1000E-MM WDM A media converter comes with one 10/100 Mbps twisted-pair RJ45 port and one 100 Mbps WDM multi-mode fiber port with an SC-simplex connector, ruggedized EMI protection, and wide temperature range.

Your advantages

- Auto MDI/MDI-X switch-over
- Data transfer rates of 100 Mbps
- Link fault pass through (LFPT) function for easy connection monitoring
- Network structure according to IEC 61850-3
- IEEE 1613
- Class 1 laser product complies with EN 60825-1

Commercial data

Item number	1330588
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN06
Product key	DNC314
GTIN	4063151627058
Weight per piece (including packing)	283.2 g
Weight per piece (excluding packing)	180 g
Customs tariff number	85176200
Country of origin	CA

Technical data

Notes

Note on application

Note on application	Only for industrial use

Product properties

Product type	Media converter
Product family	MC 1000E
MTTF	69.1 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	508.3 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	702.5 Years (Telcordia standard, temperature 25 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Electrical properties

Supply

Supply voltage range	12 V DC ... 57 V DC
Nominal supply voltage	24 V DC
	48 V DC
Typical current consumption	20 mA (24 V DC)
Max. current consumption	170 mA (12 V DC, 75 °C)

Output data

Signal

Voltage output signal	12 V DC ... 48 V DC (depending on the input voltage)
Current output signal	100 mA

Connection data

Supply

Connection method	Push-in spring connection
Single conductor/terminal point, rigid	0.2 mm² ... 2.5 mm²
Single-wire/terminal point, flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section, flexible [AWG]	24 ... 12
Stripping length	10.00 mm

Interfaces

Signal	Ethernet

Data: optical FO

Transmit capacity, minimum	-10 dBm
Transmit capacity, maximum	0 dBm

Transmission length incl. 3 dB system reserve	2 km
Connection method	SC simplex
Wavelength	1310 nm (transmit)
	1550 nm (receive)
Minimum receiver sensitivity	-28 dBm
Maximum receiver sensitivity	0 dBm
Transmission medium	Multi-mode fiberglass

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

Transmission speed	10/100 Mbps
Connection method	RJ45 jack, shielded
No. of channels	1
Transmission length	100 m (shielded twisted pair)
Transmission medium	Copper
Signal LEDs	LNK/ACT, SPD, Err, US, US2
Auto-negotiation modes	Auto
Link through	Link fault pass through
MDI-/MDI-X switchover	Auto-MDI(X)

Dimensions

Width	22.5 mm
Height	125 mm
Depth	90 mm

Material specifications

Housing material	Polyamide fiber reinforced
	Aluminum / steel sheet DC01

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	IP30
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Altitude	≤ 2000 m (in acc. with UL)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Shock	300 m/s², 11 ms (IEC 60068-2)

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

Identification	Class I, Division 2, Groups A, B, C, and D, T4
	Class I, Zone 2, IIC T4

IECEx

Identification	Ex ec IIC T4 Gc
Certificate	IECEx UL 25.0019X

ATEX

Identification	Ⓔx II 3 G Ex ec IIC T4 Gc
Certificate	UL 25 ATEX 3348X

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	IEC 61850-3, IEEE 1613

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
Useable DIN rail type	DIN rail: 35 mm

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1330588

cULus Listed
Approval ID: E238705

BSH
Approval ID: BSH Nr. 1176

IECEE CB Scheme
Approval ID: CA-11671-M1-UL

DNV
Approval ID: TAA00003RU

IECEx
Approval ID: IECEx UL 25.0019X

ATEX
Approval ID: UL 25 ATEX 3348X

cULus Listed
Approval ID: E196811

Classifications

ECLASS

ECLASS-13.0	19170411
ECLASS-15.0	19170411

ETIM

ETIM 10.0	EC001467

UNSPSC

UNSPSC 21.0	43223323

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	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.)	No substance above 0.1 wt%

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