

MC 1000E-MM WDM B - FO converters



1330890

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Fiber optic converter with SC simplex connector (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 B 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	1330890
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN06
Product key	DNC314
GTIN	4063151626662
Weight per piece (including packing)	285.2 g
Weight per piece (excluding packing)	180 g
Customs tariff number	85176200
Country of origin	CA

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Technical data

Notes

Note on application

Note on application	Only for industrial use
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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

Maximum power dissipation for nominal condition	1.5 W
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Supply

Supply voltage range	12 V DC ... 57 V DC
Nominal supply voltage	24 V DC
	48 V DC
Typical current consumption	62 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 mm ² ... 2.5 mm ²
Single-wire/terminal point, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section, flexible [AWG]	24 ... 12
Stripping length	10.00 mm

Interfaces

Signal	Ethernet
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Data: optical FO

Transmit capacity, minimum	-10 dBm
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Transmit capacity, maximum	0 dBm
Transmission length incl. 3 dB system reserve	2 km
Connection method	SC simplex
Wavelength	1550 nm (transmit) 1310 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
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Cable/line

FO cable

Fiber types	50/125 µm 62.5/125 µm Fiberglass
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Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	Operation: 5g, 150 Hz, Criterion 3
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	Operation: 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

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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/s ² , 11 ms (IEC 60068-2)

Approvals

CE

Certificate	CE-compliant
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UL, USA/Canada

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

Identification	Ex ec IIC T4 Gc
Certificate	IECEX UL 25.0019X

ATEX

Identification	Ⓜ 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
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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
Useable DIN rail type	DIN rail: 35 mm

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Approvals

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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

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Classifications

ECLASS

ECLASS-13.0	19170411
ECLASS-15.0	19170411

ETIM

ETIM 10.0	EC001467
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UNSPSC

UNSPSC 21.0	43223323
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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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