

FO converters - FL MC EF WDM-A SC - 2902658

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FO converter (replacement device A), for full duplex transmission from 10/100Base-T(X) to individual simplex fiberglass with WDM (wavelength division multiplex) technology, SC simplex fiber optic connection (1310/1550 nm). Device set (type A and type B) required for operation.

Product Features

- Full duplex communication with only one fiber
- Transmission ranges up to 38 km
- Auto negotiation
- Auto MDI/MDI-X switch-over
- Link fault pass through (LFP) and far end fault (FEF) functions for easy connection monitoring
- Data rates 10/100 Mbps



Key commercial data

package_quantity	1
GTIN	4046356669689

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 65 °C
Ambient temperature (operation)	-25 °C ... 65 °C (With UL approval)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (no condensation)
Permissible humidity (storage/transport)	30 % ... 95 % (no condensation)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Altitude	2000 m (With UL approval)
Degree of protection	IP20

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Technical data

Serial interface

Interface 1	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
Connection method	RJ45 socket, shielded
Transmission medium	Copper
Transmission length	100 m (twisted pair, shielded)
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Auto-negotiation modes	Auto
Link through	Link fault pass through
Basic functions	Store-and-forward media converter
MDI-/MDI-X switchover	Auto-MDI(X)
Signal LEDs	Activity, link status, 10/100 Mbps

Optical interface FO

Transmit capacity, minimum	≥ -14 dBm ((9/125 μm) dynamic in link mode (average))
Transmit capacity, maximum	≤ -8 dBm ((9/125 μm) dynamic in link mode (average))
Minimum receiver sensitivity	min. -31 dBm (dynamic in link mode (average))
Maximum receiver sensitivity	-8 dBm (dynamic in link mode (average))
Wavelength	1310 nm
Wavelength	1550 nm
Transmission length incl. 3 dB system reserve	38 km (With F-E 9/125 0.36 dB/km)
Transmission length incl. 3 dB system reserve	34 km (With F-E 9/125 0.4 dB/km)
Transmission length incl. 3 dB system reserve	28 km (With F-E 9/125 0.5 dB/km)
Transmission length incl. 3 dB system reserve	21 km (with F-G 62,5/125 0,7 dB/km F 1000)
Transmission length incl. 3 dB system reserve	5.5 km (with F-G 62.5/125 2.6 dB/km F 600)
Transmission length incl. 3 dB system reserve	21 km (with F-G 50/125 0,7 dB/km F 1200)
Transmission length incl. 3 dB system reserve	9 km (with F-G 50/125 1,6 dB/km F 800)
Transmission medium	Multi-mode fiberglass
Transmission medium	Single-mode fiberglass
Connection method	SC simplex

Power supply

Supply voltage range	18 V DC ... 30 V DC (Screw connection)
Supply voltage range	18 V DC ... 30 V DC (as an alternative or redundant, via backplane bus contact and system current supply)
Typical current consumption	< 110 mA (24 V DC)
Protective circuit	Protection against polarity reversal
Connection method	Plug-in screw terminal block (COMBICON), redundancy possible
Conductor cross section stranded max.	2.50 mm ²
Conductor cross section stranded min.	0.20 mm ²

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Technical data

Power supply

Conductor cross section solid max.	2.50 mm ²
Conductor cross section solid min.	0.20 mm ²
Max. AWG conductor cross section, stranded	14
Min. AWG conductor cross section, stranded	24
Conductor cross section AWG/kcmil max	14
Conductor cross section AWG/kcmil min.	24

General

Electrical isolation	according to IEEE 802.3
Electrical isolation	(VCC // FE // Ethernet)
Test voltage data interface/power supply	1.5 kV _{rms} (50 Hz, 1 min.)
Standards/regulations	EN 60950-1
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Net weight	120 g
Housing material	PA 6.6-FR
Color	green
MTBF	492 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
MTBF	133 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
MTTF	1400 Years (SN 29500 standard, temperature 25°C, operating cycle 21% (5 days a week, 8 hours a day))
MTTF	599 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25% (5 days a week, 12 hours a day))
MTTF	101 Years (SN 29500 standard, temperature 40°C, operating cycle 100% (7 days a week, 24 hours a day))
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	Class I, Zone 2, AEx nA IIC T4
UL, USA / Canada	Class I, Zone 2, Ex nA IIC T4 Gc X

classifications

eCl@ss

eCl@ss 4.0	27230207
eCl@ss 4.1	27230207
eCl@ss 5.0	27230207
eCl@ss 5.1	27230207
eCl@ss 6.0	27230207
eCl@ss 7.0	27230207
eCl@ss 8.0	27230207

ETIM

ETIM 3.0	EC000310
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classifications

ETIM

ETIM 4.0	EC000310
ETIM 5.0	EC001467

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

approvals

ATEX / UL Listed / cUL Listed / cULus Listed / UL Listed / cUL Listed / cULus Listed /

Approval details

ATEX	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

UL Listed

cUL Listed

cULus Listed

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approvals



accessories

Media converter set

FL MC EF WDM-SET SC - 2902660



Data cable by the meter

FL CAT5 HEAVY - 2744814



FL CAT5 FLEX - 2744830



PSM-LWL-GDO- 50/125 - 2799432



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accessories

PSM-LWL-GDM-RUGGED- 50/125 - 2799322



Universal tools

FL CRIMPTOOL - 2744869



DIN rail connector

ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437



ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561



Power supply

MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



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accessories

Data cable preassembled

FL MM PATCH 1,0 LC-SC - 2989161



FL MM PATCH 2,0 LC-SC - 2989268



FL MM PATCH 5,0 LC-SC - 2901800



FL MM PATCH 1,0 SC-SC - 2901805



FL MM PATCH 2,0 SC-SC - 2901807



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accessories

FL MM PATCH 5,0 SC-SC - 2901808



FL MM PATCH 1,0 SC-ST - 2901809



FL MM PATCH 2,0 SC-ST - 2901810



FL MM PATCH 5,0 SC-ST - 2901811



FL MM PATCH 1,0 SC-SCRJ - 2901812



FL MM PATCH 2,0 SC-SCRJ - 2901813



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accessories

FL MM PATCH 5,0 SC-SCRJ - 2901814



FOC-GDM-RUGGED-1016/IP20/... - 2901558



FOC-GDM-RUGGED-1016/... - 1402193



FOC-GDO-1017/IP20/... - 2901559



FOC-GDO-1017/... - 1402194



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accessories

FL SM PATCH 1,0 LC-SC - 2989190



FL SM PATCH 2,0 LC-SC - 2989297



FL SM PATCH 5,0 LC-SC - 2901827



FL SM PATCH 1,0 SC-SC - 2901829



FL SM PATCH 2,0 SC-SC - 2901830



FL SM PATCH 5,0 SC-SC - 2901831



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accessories

FL SM PATCH 1,0 SC-ST - 2901832



FL SM PATCH 2,0 SC-ST - 2901833



FL SM PATCH 5,0 SC-ST - 2901834



Data plug

VS-08-RJ45-5-Q/IP20 - 1656725



Patch cable

FL CAT5 PATCH 0,5 - 2832263



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accessories

FL CAT5 PATCH 1,0 - 2832276



FL CAT5 PATCH 2,0 - 2832289



FL CAT5 PATCH 3,0 - 2832292



Drawings

Block diagram

