

FO converters - FL MC EF 1300 MM SC - 2902853

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FO converter with SC duplex fiber optic connection (1300 nm), for converting 10/100Base-T(X) to multi-mode fiberglass (50/125 μm). Auto negotiation and auto MDI(X) function. Comprehensive link diagnostics. DIN-rail mountable, 18 ... 30 V DC supply.

Product Features

- Transmission ranges up to 10 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	4046356689236

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 ... 55 °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

General

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Technical data

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	479 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
MTBF	140 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
ATEX	# II (2) D [Ex op is Db] IIIC (PTB 06 ATEX 2042 U)
ATEX	# II (2) G [Ex op is Gb] IIC (PTB 06 ATEX 2042 U)
UL, USA / Canada	Class I, Zone 2, AEx nA IIC T4
UL, USA / Canada	Class I, Zone 2, Ex nA IIC T4 Gc X

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	< 100 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
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

Serial interface

Interface 1	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
Connection method	RJ45 socket, shielded

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Technical data

Serial interface

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	≥ -23.5 dBm ((50/125 μm) dynamic in link mode (average))
Transmit capacity, minimum	≥ -20 dBm ((62,5/125 μm) dynamic in link mode (average))
Transmit capacity, maximum	≤ -14 dBm ((50/125 μm) dynamic in link mode (average))
Transmit capacity, maximum	≤ -14 dBm ((62,5/125 μm) dynamic in link mode (average))
Minimum receiver sensitivity	min. -31 dBm (dynamic in link mode (average))
Maximum receiver sensitivity	-14 dBm (dynamic in link mode (average))
Wavelength	1300 nm
Transmission length incl. 3 dB system reserve	6.4 km (with F-G 50/125 0,7 dB/km F 1000)
Transmission length incl. 3 dB system reserve	2.8 km (with F-G 50/125 1,6 dB/km F 800)
Transmission length incl. 3 dB system reserve	10 km (with F-G 62,5/125 0,7 dB/km F 1000)
Transmission length incl. 3 dB system reserve	3 km (with F-G 62.5/125 2.6 dB/km F 600)
Transmission length incl. 3 dB system reserve	2 km (with 2GK200/230 GI-HCS)
Transmission medium	Multi-mode fiberglass
Transmission medium	GI-HCS fiber
Connection method	SC duplex

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

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classifications

ETIM

ETIM 3.0	EC000310
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

Connector set

FL PLUG RJ45 GR/2 - 2744856



FL PLUG RJ45 GN/2 - 2744571



PSM-SET-SC-DUPLEX/2-HCS/PN - 2313779



Data cable by the meter

FL CAT5 HEAVY - 2744814



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accessories

FL CAT5 FLEX - 2744830



PSM-LWL-GDO- 50/125 - 2799432



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



FL FOC PN-C-HCS-GI-200/230 - 2313410



Universal tools

FL CRIMPTOOL - 2744869



DIN rail connector

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accessories

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



Data cable preassembled

FL MM PATCH 1,0 LC-SC - 2989161



FL MM PATCH 2,0 LC-SC - 2989268



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accessories

FL MM PATCH 5,0 LC-SC - 2901800



FL MM PATCH 1,0 SC-SC - 2901805



FL MM PATCH 2,0 SC-SC - 2901807



FL MM PATCH 5,0 SC-SC - 2901808



FL MM PATCH 1,0 SC-ST - 2901809



FL MM PATCH 2,0 SC-ST - 2901810



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accessories

FL MM PATCH 5,0 SC-ST - 2901811



FL MM PATCH 1,0 SC-SCRJ - 2901812



FL MM PATCH 2,0 SC-SCRJ - 2901813



FL MM PATCH 5,0 SC-SCRJ - 2901814



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



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accessories

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



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



FOC-GDO-1017/... - 1402194



FOC-PN-HCS-GI-1005/IP20/... - 2901554



FOC-PN-HCS-GI-1005/... - 1402189



Data plug

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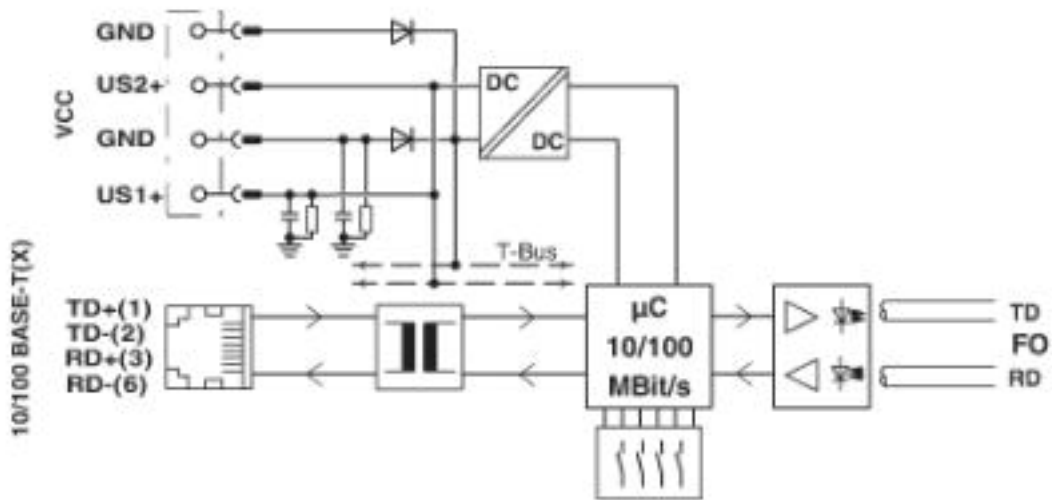
accessories

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



Drawings

Block diagram



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