

FO converters - FL MC 10/100BASE-T/FO G1300 - 2708164

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FO converter, for converting 10/100Base-T(X) to multimode fiberglass, (1300 nm), SC duplex FO connection, rail-mountable, supply 24 V DC



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	183.3 GRM
Custom tariff number	85176200
Country of origin	Germany

Technical data

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
Permissible humidity (operation)	30 % ... 95 % (non-condensing)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

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)
Auto-negotiation modes	Optionally transparent via TP and FO (default) or locally on TP

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Technical data

Serial interface

Link through	Link down is automatically forwarded to the second connection
MDI-/MDI-X switchover	Built-in switch for line (1:1) and crossover connection
Signal LEDs	Activity (yellow), Link status (green), 100 Mbps (green)
Serial transmission speed	10/100 Mbps

Optical interface FO

Transmit capacity, minimum	min. -23.5 dBm ((50/125 µm) dynamic in link mode (average))
	min. -20 dBm ((62,5/125 µm) dynamic in link mode (average))
	min. -20.5 dBm ((50/125 µm) static)
	min. -17 dBm ((62,5/125 µm) static)
Transmit capacity, maximum	max. -14 dBm ((50/125 µm) dynamic in link mode (average))
	max. -14 dBm ((62,5/125 µm) dynamic in link mode (average))
	max. -11 dBm ((50/125 µm) static)
	max. -11 dBm ((62,5/125 µm) static)
Minimum receiver sensitivity	min. -31 dBm (dynamic in link mode (average))
	min. -28 dBm (static)
Wavelength	1300 nm
Transmission length incl. 3 dB system reserve	6.4 km (with F-G 50/125 0,7 dB/km F 1200)
	2.8 km (with F-G 50/125 1,6 dB/km F 800)
	10 km (with F-G 62,5/125 0,7 dB/km F 1000)
	3 km (with F-G 62.5/125 2.6 dB/km F 600)
	2 km (with 2GK200/230 GI-HCS)
Transmission medium	Multi-mode fiberglass
	GI-HCS fiber
Connection method	SC duplex

Power supply

	24 V DC ±5 % (as an alternative or redundant, via backplane bus contact and system current supply)
Supply voltage range	10 V DC ... 30 V DC
Typical current consumption	≤ 95 mA (24 V DC)
Protective circuit	Protection against polarity reversal
Connection method	Plug-in screw terminal block (COMBICON), redundancy possible

General

Electrical isolation	(VCC // Ethernet)
Test voltage data interface/power supply	1500 V
	1.5 kV _{rms} (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC

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General

Noise emission	EN 50081-2
Net weight	120 g
Housing material	PA V0, color green
Color	green
MTBF	595 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	156 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
ATEX	# II 3 G Ex nAC IIC T4 X
UL, USA / Canada	Class I, zone 2, AEx nc IIC

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	27143136

ETIM

ETIM 2.0	EC001423
ETIM 3.0	EC001423
ETIM 4.0	EC001423
ETIM 5.0	EC001423

UNSPSC

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

Accessories

Accessories

Connector set

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Accessories

RJ45 connector - FL PLUG RJ45 GR/2 - 2744856



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, gray for straight cables, for assembly on site. For connections that are not crossed, it is recommended that you use the connector set with gray bend protection sleeve.

RJ45 connector - FL PLUG RJ45 GN/2 - 2744571



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.

Data cable by the meter

Cable - FL CAT5 HEAVY - 2744814



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm², solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

Network cable - FL CAT5 FLEX - 2744830



CAT5-SF/UTP cable (J-LI02YS(ST)C H 2 x 2 x 26 AWG), light-duty, flexible installation cable 2 x 2 x 0.14 mm², stranded, shielded, outer sheath: 5.75 mm ± 0.15 mm diameter

FO cable - PSM-LWL-GDO- 50/125 - 2799432



Fiberglass cable, duplex 50/125 µm, by the meter, without connector, for outdoor installation

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Accessories

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



Fiberglass cable, duplex 50/125 µm, by the meter, without connector, for indoor installation

Data cable preassembled

FO patch cable - FL MM PATCH 1,0 LC-SC - 2989161



Assembled fiber optic cable, break-out cable, fiberglass multi-mode 50/125 µm, connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL MM PATCH 2,0 LC-SC - 2989268



Assembled fiber optic cable, break-out cable, fiberglass multi-mode 50/125 µm, connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 LC-SC - 2901800



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, plug: LC / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL MM PATCH 1,0 SC-SC - 2901805



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 1 m

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Accessories

FO patch cable - FL MM PATCH 2,0 SC-SC - 2901807



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 SC-SC - 2901808



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL MM PATCH 1,0 SC-ST - 2901809



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / B-FOC, protection type: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL MM PATCH 2,0 SC-ST - 2901810



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 SC-ST - 2901811



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 m

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Accessories

FO patch cable - FL MM PATCH 1,0 SC-SCRJ - 2901812



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL MM PATCH 2,0 SC-SCRJ - 2901813



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / SCRJ, protection type: IP20, for installation in cable ducts or control cabinets, length: 2 m[^]

FO patch cable - FL MM PATCH 5,0 SC-SCRJ - 2901814



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: SC Duplex / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FOC-GDM-RUGGED-1016/IP20/... - 2901558



rugged GOF installation cable (IP20 heads only) for inner areas with highly tear-proof aramid strain-relief elements. Individual elements consist of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.

FO patch cable - FOC-GDM-RUGGED-1016/... - 1402193



rugged GOF installation cable for inner areas with highly tear-proof aramid strain-relief elements. Individual elements consist of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.

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Accessories

FO patch cable - FOC-GDO-1017/IP20/... - 2901559



Highly rugged GOF round cable (IP20 heads only) for assembly and for outdoor installation with integrated moisture barrier as well as rodent-proof scrim. Individual elements made from highly flexible FRNC material. The wire is ozone and UV resistant with a very rugged polyethylene outer sheath.

FO patch cable - FOC-GDO-1017/... - 1402194



Highly rugged GOF round cable for assembly and for outdoor installation with integrated moisture barrier as well as rodent-proof scrim. Individual elements made from highly flexible FRNC material. The wire is ozone and UV resistant with a very rugged polyethylene outer sheath.

FO patch cable - FOC-PN-HCS-GI-1005/IP20/... - 2901554



PROFINET HCS-GI installation cable (IP20 heads only) for fixed installation in the inner area. Gradient index fiber. Individual elements made from highly flexible FRNC material. Halogen-free, ozone and UV resistant with a polyurethane (PUR) outer sheath.

FO patch cable - FOC-PN-HCS-GI-1005/... - 1402189



HCS-GI installation cable for assembly for fixed installation in the inner area, with gradient index fibers for the highest performance requirements, as well as individual elements made of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.

DIN rail connector

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



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

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Accessories

Power supply

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



DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A

Universal tools

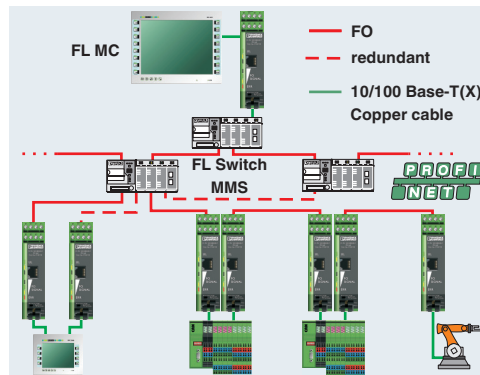
Assembly tool - FL CRIMPTOOL - 2744869



Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site

Drawings

Functional drawing



Star, linear, and redundant ring structure in combination with modular switches