

# FL MC 10/100BASE-T/FO G1300 ST

Order No.: 2708986

Illustration shows FL MC 10BASE-T/FO G850



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2708986>


Fiber optic converter, for converting 10/100Base-T(X) to multimode glass fiber, (1300 nm), B-FOC (ST<sup>®</sup>) FO connection, rail-mountable, supply 24 V DC



Ethernet



## Commercial data

GTIN (EAN)	 4 046356 082846
sales group	H650
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 529 (IF-2009)

## Product notes

WEEE/RoHS-compliant since: 01/31/2007



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## Technical data

### Serial interface

Interface 1	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
Transmission length	100 m (twisted pair, shielded)
Connection method	RJ45 female connector, shielded

Auto-negotiation modes	Optionally transparent via TP and FO (default) or locally on TP
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. -31.00 dBm (dynamic in link mode (average))
	min. -28.00 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)
Connection method	B-FOC (ST)

#### Power supply

Nominal supply voltage	24 V DC ±20 % (via pluggable COMBICON screw terminal block)
	24 V DC ±5% (as an alternative or redundant, via backplane bus contact and system current supply)
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 data

Width	22.5 mm
Height	99 mm
Depth	122 mm

Ambient temperature (operation)	0 °C ... 55 °C
Electrical isolation	(VCC // Ethernet)
Test voltage data interface/power supply	1500 V
	1.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Noise emission	EN 50081-2
Noise immunity	EN 61000-6-2:2005
Degree of protection	IP20
Net weight	120 g
Housing material	PA V0, color green
Color	green
MTBF	573 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	138 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
ATEX	Ex II 3 G Ex nAC IIC T4 X
UL, USA / Canada	Class I, zone 2, AEx nc IIC

#### Certificates / Approvals



Certification	CUL, UL
Certification Ex:	CUL-EX LIS, UL-EX LIS

#### Accessories

Item	Designation	Description
<b>Cable/conductor</b>		
2744830	FL CAT5 FLEX	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 mm <sup>2</sup> , stranded, shielded, outer sheath: 5.75 mm ± 0.15 mm diameter
2744814	FL CAT5 HEAVY	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 mm <sup>2</sup> , solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

2989174	FL MM PATCH 1,0 LC-ST	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/B-FOC (ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2901809	FL MM PATCH 1,0 SC-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: SC Duplex / B-FOC, protection type: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2901820	FL MM PATCH 1,0 ST-SCRJ	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: SC Duplex / SCRJ, protection type: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2901815	FL MM PATCH 1,0 ST-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: B-FOC (ST) / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989271	FL MM PATCH 2,0 LC-ST	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/B-FOC (ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2901821	FL MM PATCH 2,0 ST-SCRJ	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: B-FOC (ST) / SCRJ, protection type: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2901816	FL MM PATCH 2,0 ST-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: B-FOC (ST) / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2901801	FL MM PATCH 5,0 LC-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, plug: LC / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901811	FL MM PATCH 5,0 SC-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: SC Duplex / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901822	FL MM PATCH 5,0 ST-SCRJ	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: B-FOC (ST) / SCRJ, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901817	FL MM PATCH 5,0 ST-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, connector: B-FOC (ST) / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
1402193	FOC-GDM-RUGGED-1016/...	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.
2901558	FOC-GDM-RUGGED-1016/ IP20/...	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.

1402194	FOC-GDO-1017/...	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.
2901559	FOC-GDO-1017/IP20/...	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.
2799322	PSM-LWL-GDM-RUGGED-50/125	Glass fiber cable, duplex 50/125 µm, by the meter, without connector, for indoor installation
2799432	PSM-LWL-GDO- 50/125	Glass fiber cable, duplex 50/125 µm, by the meter, without connector, for outdoor installation

**General**

2707437	ME 22,5 TBUS 1,5/ 5-ST-3,81 GN	DIN rail connector for current transducers, gold-plated contacts, for DIN rail mounting, 5-pos.
2866983	MINI-SYS-PS-100-240AC/24DC/1.5	DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A

**Plug/Adapter**

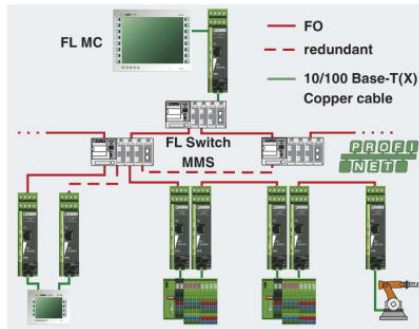
2744571	FL PLUG RJ45 GN/2	RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.
2744856	FL PLUG RJ45 GR/2	RJ45 connector, shielded, 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.

**Tools**

2744869	FL CRIMPTOOL	Crimping pliers, for assembling the RJ45 connectors FL PLUG RJ45..., for assembly on site
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## Diagrams/Drawings

### Functional drawing



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

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