



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



FO converters - FL MC 10/100BASE-T/FO-660 - 2708193

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



FO converter, for converting 10/100Base-T to polymer and PCF fiber, (660 nm), SC-RJ FO connection (PROFINET standard), rail-mountable, supply 24 V DC

Why buy this product

- Backplane bus contact, enabling alternative or redundant 24 V power supply
- Link through function for easy connection monitoring. The availability of the connected cable connection and devices is monitored and indicated.
- Choice between local or transparent auto negotiation function for maximum transmission capacity



Key Commercial Data

Packing unit	1 STK
GTIN	
GTIN	4017918973957

Technical data

Note

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

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-30 °C ... 70 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20

FO converters - FL MC 10/100BASE-T/FO-660 - 2708193

Technical data

Ambient conditions

Noise immunity	EN 61000-6-2:2005
----------------	-------------------

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 2014/30/EU
Noise emission	EN 50081-2
Net weight	120.1 g
Housing material	PA V0
Color	green
MTBF	564 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	136 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
MTTF	885 Years (SN 29500 standard, temperature 25 °C, operating cycle 21 % (5 days a week, 8 hours a day))
	446 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day))
	202 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 nC IIC T4 Gc X (Please follow the special installation instructions in the documentation!)
UL, USA/Canada	508 recognized

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	18 V DC ... 30 V DC (via pluggable COMBICON screw terminal block)
	23 V DC ... 25 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	Reverse polarity protection
Connection method	Plug-in screw terminal block (COMBICON), redundancy possible

Serial interface

Interface 1	Ethernet interface, 10/100Base-T(X) in acc. with IEEE 802.3u
No. of ports	1
Connection method	RJ45 socket, shielded
Transmission medium	Copper
Transmission length	100 m (shielded twisted pair)
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, UL flashing), 100 Mbps (green)

FO converters - FL MC 10/100BASE-T/FO-660 - 2708193

Technical data

Optical interface FO

Transmit capacity, minimum	min. -8 dBm ((980/1000 µm) static)
	min. -19 dBm ((200/230 µm) static)
Transmit capacity, maximum	max. -2 dBm ((980/1000 µm) static)
	max. -11 dBm ((200/230 µm) static)
Minimum receiver sensitivity	min. -23 dBm ((980/1000 µm) static)
	min. -26.8 dBm ((200/230 µm) static)
Wavelength	660 nm
Transmission length incl. 3 dB system reserve	70 m (Polymer fiber with F-P 980/1000 230 dB/km at 10 Mbps)
	300 m (PCF fiber with F-K 200/230 8 dB/km at 10 Mbps)
	50 m (Polymer fiber with F-P 980/1000 230 dB/km at 100 Mbps)
	100 m (PCF fiber with F-K 200/230 8 dB/km at 100 Mbps)
	300 m (HCS GI fiber with F-GK 200/230 at 100 Mbps)
	400 m (HCS GI fiber with F-GK 200/230 at 10 Mbps)
Transmission medium	Polymer fiber
	PCF fiber
Connection method	SC-RJ

Function

Status and diagnostic indicators	UL (communications power, green)
----------------------------------	----------------------------------

Digital outputs

Output name	Relay output
Number of outputs	2
Contact type	N/O contact
Maximum switching voltage	60 V AC/DC
Max. switching current	1 A

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Free fall in acc. with IEC 60068-2-32
Test result	1 m
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 150 Hz, 1.5 h, in XYZ direction
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	15g, 11 ms period, half-sine shock pulse
Noise emission	EN 50081-2
Noise immunity	EN 61000-6-2:2005
Free from substances that could impair the application of coating	according to P-VW 3.10.7 57 65 0 VW-AUDI-Seat central standard
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV (Test Level 3)
Standards/regulations	EN 61000-4-3

FO converters - FL MC 10/100BASE-T/FO-660 - 2708193

Technical data

Standards and Regulations

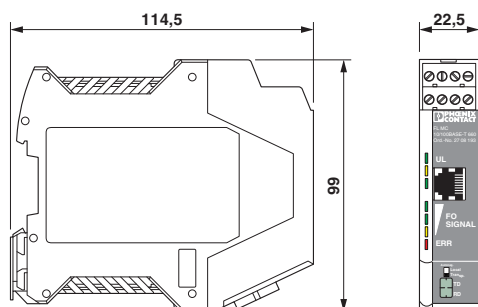
Frequency range	80 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 2 kV
Standards/regulations	EN 55011
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Conformance	CE-compliant
ATEX	# II 3 G Ex nA nC IIC T4 Gc X
UL, USA/Canada	508 recognized
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A

Environmental Product Compliance

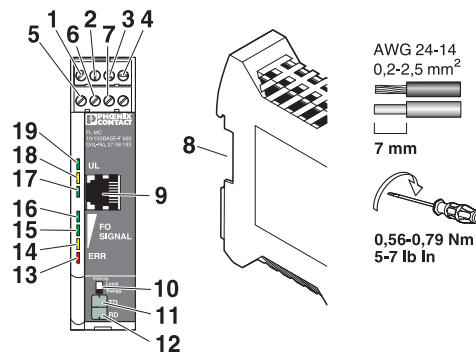
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Dimensional drawing



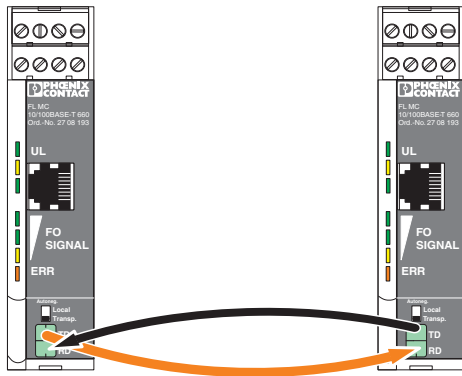
Schematic diagram



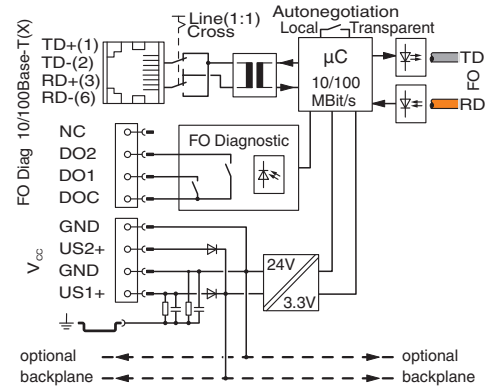
Front view

FO converters - FL MC 10/100BASE-T/FO-660 - 2708193

Schematic diagram

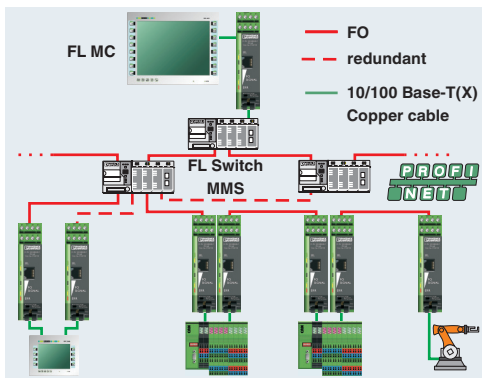


Block diagram



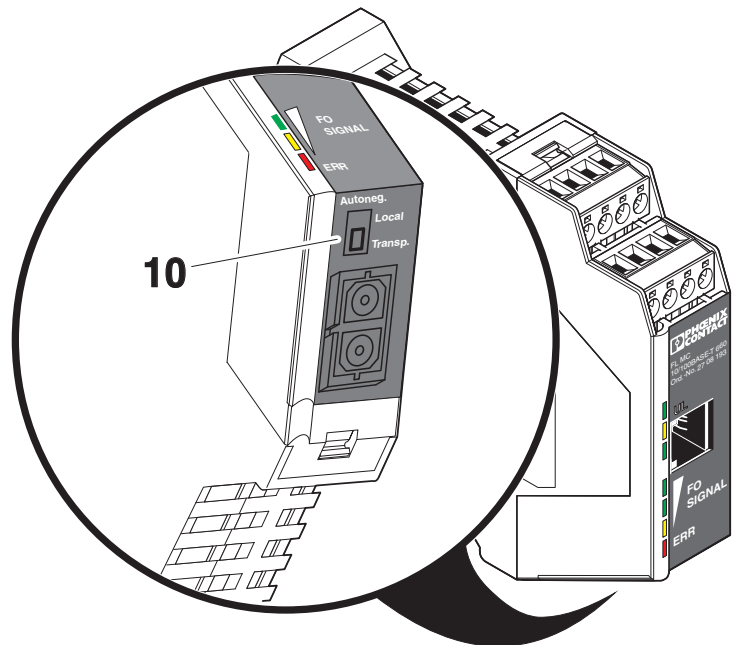
Connection of the cables

Functional drawing



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

Schematic diagram



Mode selector switch

Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>