

FO converters - PSI-MOS-RS485W2/FO1300 E - 2708562

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FO converter with integrated optical diagnostics, alarm contact, for RS-485 2-wire bus systems (SUCONET K, MODBUS ...) up to 500 kbps, NRZ coding, termination device with an FO interface (SC-Duplex), 1300 nm, for fiberglass cable

Product Features

- ✓ Supply voltage and data signals routed through via DIN rail connectors
- ✓ Connections can be plugged in using a COMBICON screw terminal block
- ✓ Can be combined with the PSI copper repeater in a modular way using DIN rail connectors
- ✓ Automatic data rate detection or fixed data rate setting via DIP switches
- ✓ Redundant power supply possible by means of optional system power supply unit
- ✓ High-quality electrical isolation between all interfaces (RS-485 // fiber optic ports // power supply // DIN rail connector)
- ✓ Approved for use in zone 2
- ✓ Integrated optical diagnostics for continuous monitoring of fiber optic paths
- ✓ Floating switch contact for leading alarm generation in relation to critical fiber optic paths
- ✓ Suitable for data rates up to 500 kbps



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	230.1 GRM
Custom tariff number	85176200
Country of origin	Germany

Technical data

Note

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

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Technical data

Dimensions

Width	35 mm
Height	99 mm
Depth	105 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (non-condensing)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

General

Bit distortion, input	± 35 % (permitted)
Bit distortion, output	< 6.25 %
Electrical isolation	VCC // RS-485
Test voltage data interface/power supply	1.5 kV _{rms} (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Noise emission	EN 55011
Net weight	190 g
Housing material	PA 6.6-FR
Color	green
MTBF	484 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day)) 102 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 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 listed 508 recognized

Power supply

Supply voltage range	18 V DC ... 32 V DC
Typical current consumption	170 mA (24 V DC)
Connection method	COMBICON plug-in screw terminal block

Serial interface

Interface 1	RS-485 interface, 2-wire
Operating mode	Semi-duplex

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Technical data

Serial interface

Connection method	Pluggable screw connection
File format/coding	UART (11/10 bit switchable; NRZ), slip-tolerant
Data direction switching	Automatic control
Transmission medium	Copper
Transmission length	≤ 1200 m (depending on the data rate, with shielded, twisted data cable)
Termination resistor	390 Ω
	220 Ω
	390 Ω (Can be connected)
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
Serial transmission speed	4.8/ 9.6/ 19.2/ 38.4/ 57.6/ 75/ 93.75/ 115.2/ 136/ 187.5/ 375/ 500 kbps

Optical interface FO

Wavelength	1300 nm
Transmission length incl. 3 dB system reserve	25 km (With F-G 50/125 0.7 dB/km at 1300 nm)
	22 km (with F-G 62.5/125 0.8 dB/km at 1300 nm)
	45 km (With F-E 9/125 0,4 dB/km at 1300 nm)
Transmission medium	Multi-mode fiberglass
	Single-mode fiberglass
Transmission protocol	Protocol-transparent to the RS-485 interface
Connection method	SC duplex

Digital outputs

Output name	Relay output
Output description	Alarm output
Number of outputs	1
Maximum switching voltage	60 V DC
	42 V AC
Limiting continuous current	1 A

Classifications

eCl@ss

eCl@ss 4.0	27230207
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Classifications

eCl@ss

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	43201553

Approvals

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UL Recognized / cUL Recognized / UL Listed / cUL Listed / UL Recognized / UL Listed / cUL Recognized / cUL Listed / cUL Listed / cULus Recognized / cULus Listed / cULus Listed / cULus Listed / null / null / null / null

Ex Approvals

ATEX

Approvals submitted

Approval details


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Approvals


UL Recognized 


cUL Recognized 

UL Listed 


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Approvals

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Accessories

Accessories

Data cable by the meter

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



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

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



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

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Accessories

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

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

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Accessories

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

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

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Accessories

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 - FL SM PATCH 1,0 LC-SC - 2989190



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 μm , connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL SM PATCH 2,0 LC-SC - 2989297



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 μm , connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL SM PATCH 5,0 LC-SC - 2901827



Assembled FO cable, break out cable, single-mode fiberglass 9/125 μm , connector: LC / SC Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 m

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Accessories

FO patch cable - FL SM PATCH 1,0 SC-SC - 2901829



Assembled FO cable, break out cable, single-mode fiberglass 9/125 µm, connector: SC Duplex / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL SM PATCH 2,0 SC-SC - 2901830



Assembled FO cable, break out cable, single-mode fiberglass 9/125 µm, connector: SC Duplex / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL SM PATCH 5,0 SC-SC - 2901831



Assembled FO cable, break out cable, single-mode fiberglass 9/125 µm, connector: SC Duplex / SC-Duplex protection type: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL SM PATCH 1,0 SC-ST - 2901832



Assembled FO cable, break out cable, single-mode fiberglass 9/125 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 SM PATCH 2,0 SC-ST - 2901833



Assembled FO cable, break out cable, single-mode fiberglass 9/125 µm, connector: SC Duplex / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO converters - PSI-MOS-RS485W2/FO1300 E - 2708562

Accessories

FO patch cable - FL SM PATCH 5,0 SC-ST - 2901834



Assembled FO cable, break out cable, single-mode fiberglass 9/125 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.

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.

Terminal resistor

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Accessories

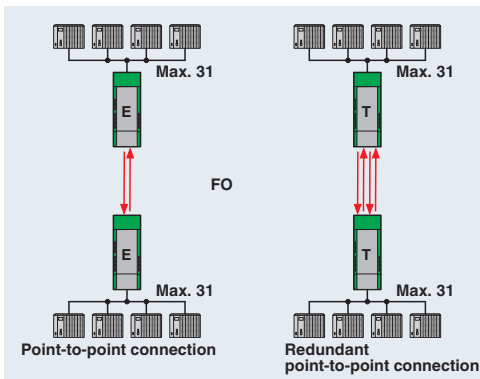
Termination resistor - PSI-TERMINATOR-PB - 2313944



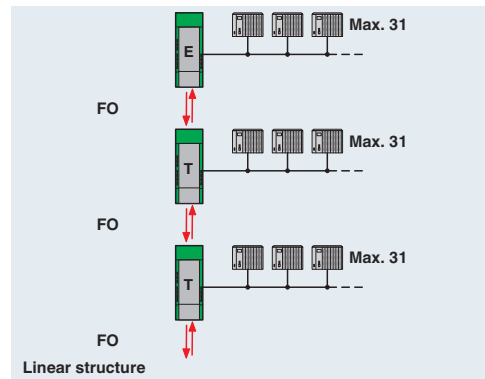
Active termination resistor with redundant voltage supply for PROFIBUS and RS-485 bus systems. Compact design. Electrical isolation between supply and data interface. Bus termination can be switched. Integrated programming interface.

Drawings

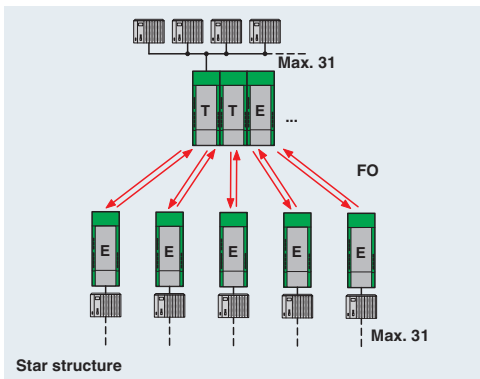
Application drawing



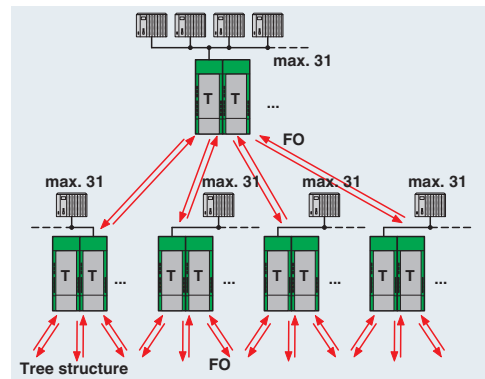
Application drawing



Application drawing

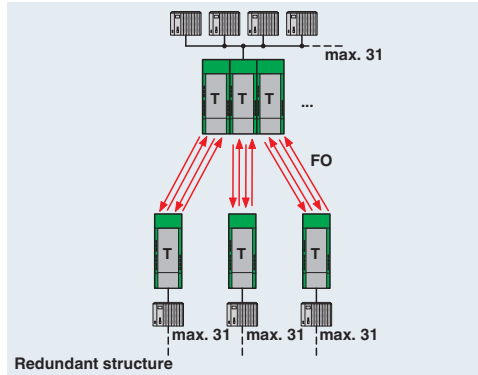


Application drawing



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Application drawing



Block diagram

