

FO converters - PSI-MOS-PROFIB/FO 850 T-SO - 2708614

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FO converter with integrated optical diagnosis, alarm contact, for PROFIBUS up to 12 Mbps, T-coupler with two FO interfaces (BFOC), 850 nm, for fiber glass cable



Key commercial data

Packing unit	0
Minimum order quantity	1
GTIN	 4 017918 974176
Custom tariff number	85176200
Country of origin	GERMANY

Technical data

Note:

Utilization restriction	The operation of this device does not meet the general EMC protection requirements for residential areas. Please take the appropriate precautions.
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Serial interface

Interface 1	PROFIBUS acc. to IEC 61158, RS-485 2-wire, half duplex, automatic control
Operating mode	Semi-duplex
File format/coding	UART (11 Bit, NRZ)
Data direction switching	Automatic control
Transmission medium	Copper
Transmission length	≤ 1200 m (depending on the data rate, with shielded, twisted pair data cable)
Connection method	D-SUB-9 female connector
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

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Serial interface

Conductor cross section AWG/kcmil max	14
Serial transmission speed	≤ 12 Mbps

Optical interface FO

Transmit capacity, minimum	-4.2 dBm (200/230 μm)
Transmit capacity, minimum	-17.8 dBm (50/125 μm)
Transmit capacity, minimum	-14.6 dBm (62,5/125 μm)
Minimum receiver sensitivity	-30.00 dBm (50/125 μm)
Maximum receiver sensitivity	-3 dBm (200/230 μm)
Wavelength	850 nm
Transmission length incl. 3 dB system reserve	2600 m (with F-G 50/125 2.5 dB/km)
Transmission length incl. 3 dB system reserve	3300 m (with F-G 62,5/125 3.0 dB/km)
Transmission length incl. 3 dB system reserve	800 m (With F-K 200/230 10 dB/km with quick mounting connector)
Transmission medium	HCS fiber
Transmission medium	Multi-mode fiberglass
Connection method	B-FOC (ST®)

Fault warning output

Maximum switching voltage	65 V DC
Maximum switching voltage	150 V AC
Limiting continuous current	0.46 A

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	18 V DC ... 30 V DC
Max. current consumption	130 mA
Typical current consumption	120 mA (24 V DC)
Connection method	COMBICON plug-in screw terminal block

General data

Bit delay	≤ 1 Bit
Bit distortion, input	± 35 % (permitted)
Bit distortion, output	< 6.25 %
Width	35 mm
Height	99 mm
Depth	105 mm
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (no condensation)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Electrical isolation	(VCC // RS-485)
Test voltage data interface/power supply	1.5 kV _{rms} (50 Hz, 1 min.)
Degree of protection	IP20
Net weight	205 g

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General data

Housing material	PA 6.6-FR
Color	green
MTBF	149 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
MTBF	24 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 nAC IIC T4 X
ATEX	# II (2) GD [Ex op is] IIC (PTB 06 ATEX 2042 U)
UL, USA / Canada	Class I, Zone 2, AEx nc IIC T5
UL, USA / Canada	Class I, zone 2, Ex nC nL IIC T5 X
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

Classifications

ETIM

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

UNSPSC

UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43201553
UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008

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

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / UL Recognized / cUL Recognized / cULus Recognized

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Approvals


Ex Approvals


ATEX / UL Listed / cUL Listed / ATEX / UL Listed / cUL Listed / cULus Listed


Approvals submitted


Approval details

UL Recognized 

cUL Recognized 

UL Recognized 

cUL Recognized 

cULus Recognized 

Accessories

Accessories

Cable/conductor

FO cable - PSM-LWL-HCS-RUGGED-200/230 - 2799885



HCS cable, duplex 200/230 µm, by the meter, without connector, for indoor installation

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Accessories

FO cable - PSM-LWL/HCS-RUGGED - 2744937



HCS cable, duplex 200/230 μm , by the meter, with connector, for indoor installation

FO cable - PSM-LWL-HCSO-200/230 - 2799445



HCS cable, duplex 200/230 μm , by the meter, without connector, for outdoor installation

FO cable - PSM-LWL/HCSO - 2744940



HCS cable, duplex 200/230 μm , by the meter, with 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

FO cable - PSM-LWL/GDM-RUGGED - 2744911



Fiberglass cable, duplex 50/125 μm , by the meter, with connector, for indoor installation

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/GDO - 2744924



Fiberglass cable, duplex 50/125 µm, by the meter, with connector, for outdoor installation

Cable - PSM-CABLE-PROFIB/FC - 2744652



PROFIBUS cable, Fast Connect type, up to 12 Mbps (02YSY (ST)CY 1x2x22 AWG)

Cable - PSM-CABLE-PROFIB/FC - 2744652



PROFIBUS cable, Fast Connect type, up to 12 Mbps (02YSY (ST)CY 1x2x22 AWG)

FO patch cable - FL MM PATCH 1,0 LC-ST - 2989174



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

FO patch cable - FL MM PATCH 2,0 LC-ST - 2989271



Assembled fiber optic cable, break-out cable, fiberglass multi-mode 50/125 µm, connector: LC/B-FOC (ST), degree of protection: 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 LC-ST - 2901801



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, plug: LC / 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-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 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 ST-ST - 2901815



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: B-FOC (ST) / 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 ST-ST - 2901816



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: B-FOC (ST) / 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 ST-ST - 2901817



Assembled FO cable, break out cable, multi-mode fiberglass 50/125 µm, connector: B-FOC (ST) / 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 ST-SCRJ - 2901820



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: 1 m

FO patch cable - FL MM PATCH 2,0 ST-SCRJ - 2901821



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

FO patch cable - FL MM PATCH 5,0 ST-SCRJ - 2901822



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

FO patch cable - FL SM PATCH 1,0 LC-ST - 2989242



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

FO patch cable - FL SM PATCH 2,0 LC-ST - 2989349



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

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Accessories

FO patch cable - FL SM PATCH 5,0 LC-ST - 2901828



Assembled FO cable, break out cable, single-mode fiberglass 9/125 µm, connector: LC / 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 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 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 - FL SM PATCH 1,0 ST-ST - 2901836



Assembled FO cable, break out cable, single-mode fiberglass 9/125 µm, connector: B-FOC (ST) / 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 ST-ST - 2901837



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

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Accessories

FO patch cable - FL SM PATCH 5,0 ST-ST - 2901838



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

Plug/Adapter

Fiber optic coupling - PSM-SET-BFOC-LINK/2 - 2799429



Coupling; set consisting of 2 couplings for connecting B-FOC plugs

D-SUB bus connector - SUBCON-PLUS-PROFIB/SC2 - 2708232



D-SUB connector, 9-pos., male connector, cable entry $< 35^\circ$, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

D-SUB bus connector - SUBCON-PLUS-PROFIB/PG/SC2 - 2708245



D-SUB connector, 9-pos., male connector, cable entry $< 35^\circ$, bus system: PROFIBUS DP up to 12 Mbps with PG D-SUB female connector for connecting a programming device, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

D-SUB bus connector - SUBCON-PLUS-PROFIB/AX/SC - 2744380



D-SUB connector, 9-pos., male connector, axial version with two cable entries, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

Tools

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Accessories

Assembly tool - PSM-HCS-KONFTOOL/B-FOC - 2708465



HCS assembly kit for B-FOC (ST) quick mounting connectors, including stripping blade, stripping pliers, aramide yarn scissors, fiber stripper, microscope, fiber cleaving tool for standard HCS and HCS GI fibers, and documentation

Measuring instrument - PSM-FO-POWERMETER - 2799539



Fiber optic measuring case, consisting of an optical power meter, F-SMA, B-FOC adapters, reference fibers and operating instructions

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, bladed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

Stripping tool - PSM-STRIP-FC/PROFIB - 2744623



Quick stripping tool for PROFIBUS cable, type Fast Connect

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

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Accessories

Electronic housing - ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561



DIN rail connector for DIN rail power supply unit, gold-plated contacts, for DIN rail mounting, 5-pos.

Electronic housing - ME 17,5 TBUS 1,5/PP000-3,81 BK - 2890014

Plug component

Connection distributor - PSM PTK - 2760623



Passive RS-485 T-distributor, fitted with one 9-pin D-SUB pin strip and two 9-pin D-SUB socket strips

Connection distributor - PSM PTK-4 - 2799364



Passive RS-485 T-distributor, fitted with one 9-pin D-SUB pin strip and five 9-pin D-SUB socket strips

Repeater - PSI-REP-PROFIBUS/12MB - 2708863



Modular repeater for electrical isolation and range increase for PROFIBUS up to 12 Mbps, 4-way isolation, rail-mountable, supply 24 V DC

Interface converter - PSM-ME-RS485/RS485-P - 2744429



Repeater, for potential separation and range increase in RS-485 2-wire bus systems, 3-way isolation, rail-mountable

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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.

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