

# PSI-MOS-RS485W2/FO 660 T


Order No.: 2708300



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FO converter with integrated optical diagnosis, alarm contact, for RS-485 2-wire bus systems (SUCONET K, MODBUS ...) up to 500 kbps, NRZ coding, T-coupler with two FO interfaces (FSMA), 660 nm, for polymer/HCS fiber cable



Commercial data	
GTIN (EAN)	 4 017918 974008
sales group	H622
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 507 (IF-2011)

### Product notes

WEEE/RoHS-compliant since:  
04/18/2007



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## Technical data

Serial interface	
Interface 1	RS-485 interface, 2-wire
Operating mode	Semi-duplex
File format/coding	UART (11/10 bit switchable; NRZ), slip-tolerant

Data direction switching	Automatic control
Termination resistor	220 Ω can be connected; pull up/down 390 Ω
Transmission length	max. 1200 m (depending on the data rate, with shielded, twisted data cable)
Connection method	Pluggable screw connection
Serial transmission speed	4,8/ 9,6/ 19,2/ 38,4/ 57,6/ 75/ 93,75/ 115,2/ 136/ 187,5/ 375/ 500

#### Optical interface FO

Transmit capacity, minimum	-5.3 dBm (980/1000 μm) -16 dBm (200/230 μm)
Minimum receiver sensitivity	-30.20 dBm
Maximum receiver sensitivity	-3 dBm (980/1000 μm)
Wavelength	660 nm
Transmission length incl. 3 dB system reserve	100 m (With F-P 980/1000 230 dB/km with quick mounting connector) 800 m (With F-K 200/230 10 dB/km with quick mounting connector)
Transmission protocol	Protocol-transparent to the RS-485 interface
Connection method	F-SMA

#### Fault warning output

Maximum switching voltage	60 V DC 42 V AC
Limiting continuous current	1 A

#### Power supply

Nominal supply voltage	24 V DC ± 25%
Supply voltage range	18 V DC ... 32 V DC
Typical current consumption	100 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)
Electrical isolation	(VCC // RS-485)
Test voltage data interface/power supply	1.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 55011
Noise immunity	EN 61000-6-2:2005
Degree of protection	IP20
Housing material	PA V0, color green
Color	green
MTBF	220 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	44 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
	Ex II (2) GD [Ex op is] IIC (PTB 06 ATEX 2042 U)
UL, USA / Canada	Class I, zone 2, AEx nc IIC

#### Certificates / Approvals



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

#### Accessories

Item	Designation	Description
<b>Cable/conductor</b>		
2744652	PSM-CABLE-PROFIB/FC	PROFIBUS cable, Fast Connect type, up to 12 Mbps (02YSY (ST)CY 1x2x22 AWG)
2799885	PSM-LWL-HCS-RUGGED-200/230	HCS cable, duplex 200/230 µm, by the meter, without connector, for indoor installation

2799445	PSM-LWL-HCSO-200/230	HCS cable, duplex 200/230 µm, by the meter, without connector, for outdoor installation
2744319	PSM-LWL-KDHEAVY-980/1000	Polymer fiber cable, duplex 980/1000 µm, medium-weight version for permanent indoor installation, by the meter, without connector
2744322	PSM-LWL-RUGGED-980/1000	Polymer fiber cable, duplex, 980 µm/1000 µm, heavy version for permanent indoor installation, sold by the meter without connectors
2744982	PSM-LWL-RUGGED-FLEX	Polymer fiber cable, duplex 980/1000 µm, heavy-weight, highly flexible version for flexible conduit applications, by the meter, with connector
2744335	PSM-LWL-RUGGED-FLEX-980/1000	Polymer fiber cable, duplex 980/1000 µm, heavy-weight, highly flexible version for flexible conduit applications, by the meter, without connector
2744937	PSM-LWL/HCS-RUGGED	HCS cable, duplex 200/230 µm, by the meter, with connector, for indoor installation
2744940	PSM-LWL/HCSO	HCS cable, duplex 200/230 µm, by the meter, with connector, for outdoor installation
2744966	PSM-LWL/KDHEAVY	Polymer fiber cable, duplex 980/1000 µm, medium-weight version for permanent indoor installation, by the meter, with connector
2744979	PSM-LWL/RUGGED	Polymer fiber cable, duplex 980/1000 µm, heavy-weight version for permanent indoor installation, by the meter, with connector

**General**

2709561	ME 17,5 TBUS 1,5/ 5-ST-3,81 GN	DIN rail connector for DIN rail power supply unit, gold-plated contacts, for DIN rail mounting, 5-pos.
2890014	ME 17,5 TBUS 1,5/PP000-3,81 BK	Plug component
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
2708313	PSI-MOS-RS485W2/FO 660 E	FO converter with integrated optical diagnosis, alarm contact, for RS-485 2-wire bus systems (SUCONET K, MODBUS ...) up to 500 kbps, NRZ coding, terminal equipment with an FO interface (FSMA), 660 nm, for polymer/HCS fiber cable
2313096	PSI-REP-RS485W2	Modular repeater for electrical isolation and range increase in RS-485 2-wire bus systems up to 500 kbps, 4-way isolation, rail-mountable, supply 24 V DC
2313944	PSI-TERMINATOR-PB	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.
2760623	PSM PTK	Passive RS-485 T-distributor, fitted with one 9-pin D-SUB pin strip and two 9-pin D-SUB socket strips
2799364	PSM PTK-4	Passive RS-485 T-distributor, fitted with one 9-pin D-SUB pin strip and five 9-pin D-SUB socket strips
2744429	PSM-ME-RS485/RS485-P	Repeater, for potential separation and range increase in RS-485 2-wire bus systems, 3-way isolation, rail-mountable

### Plug/Adapter

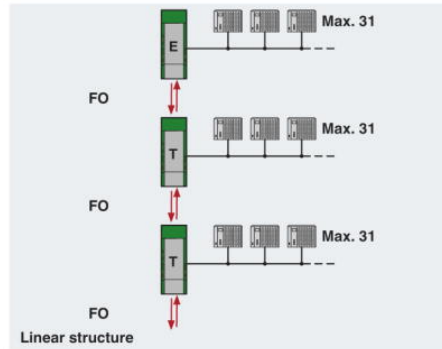
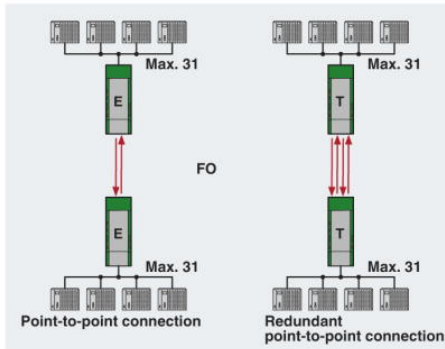
2799416	PSM-SET-FSMA-LINK/2	Coupling; set consisting of 2 couplings for connecting F-SMA plugs
2799720	PSM-SET-FSMA/4-KT	F-SMA plug set for polymer fiber, for self assembly consisting of 4 quick mounting connectors with bend protection sleeve
2744241	SUBCON-PLUS 9/F	D-SUB connector, 9-pos. female connector, two cable entries < 35°, universal type for all systems, pin assignment: 1, 2, 3, 4, 5, 6, 7, 8, 9 to one screw connection terminal block
2744018	SUBCON-PLUS 9/M	D-SUB connector, 9-pos., male connector, two cable entries < 35°, universal type for all systems, pin assignment: 1, 2, 3, 4, 5, 6, 7, 8, 9 to one screw connection terminal block
2744267	SUBCON-PLUS F1	D-SUB connector, 9-pos. female connector, two cable entries < 35°, bus system: Modbus, Modbus Plus, BITBUS, ARCNET, MULT/MININET (B&R), SYSTEM 2003 (B&R), P-NET, pin assignment: 1, 2, 3, 5, 6, 8; screw connection terminal blocks
2799490	SUBCON-PLUS F2	D-SUB connector, 9-pos. female connector, two cable entries < 35°, bus system: CAN, SUCONET K1, K2 (MOELLER), S-BUS (Saia), J-BUS (Merlin Gerin), pin assignment: 2, 3, 4, 5, 7, 9 to two screw connection terminal blocks
2744102	SUBCON-PLUS F5	D-SUB connector, 9-pos. female connector, two cable entries < 35°, bus system: Modbus, CEGELEC, pin assignment: 1, 1, 2, 3, 6, 7; screw connection terminal blocks
2761826	SUBCON-PLUS M1	D-SUB connector, 9-pos., male connector, two cable entries < 35°, bus system: Modbus, Modbus Plus, BITBUS, ARCNET, MULT/MININET (B&R), SYSTEM 2003 (B&R), P-NET, pin assignment: 1, 2, 3, 5, 6, 8 to two screw connection terminal blocks
2761839	SUBCON-PLUS M2	D-SUB connector, 9-pos., male connector, two cable entries < 35°, bus system: CAN, SUCONET K1, K2 (MOELLER), S-BUS (Saia), J-BUS (Merlin Gerin), pin assignment: 2, 3, 4, 5, 7, 9 to two screw connection terminal blocks

### Tools

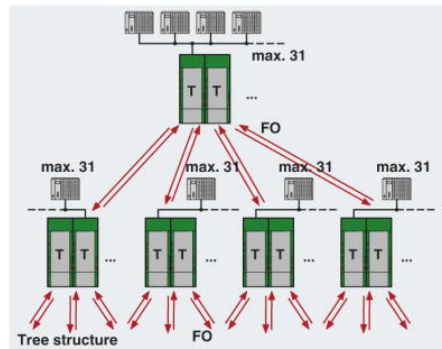
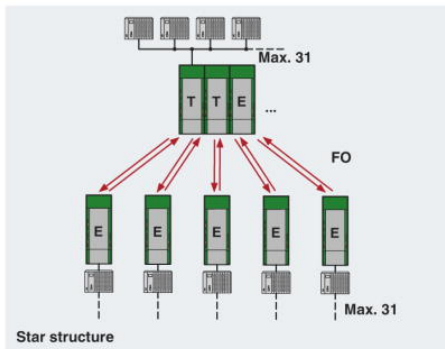
2799539	PSM-FO-POWERMETER	Fiber optic measuring case, consisting of an optical power meter, F-SMA, B-FOC adapters, reference fibers and operating instructions
2799526	PSM-HCS-KONFTOOL	HCS assembly kit for F-SMA quick mounting connectors, including stripping blade, stripping pliers, aramide yarn scissors, fiber stripper, microscope, fiber cleaving tool for standard HCS fibers, and documentation
2744131	PSM-POF-KONFTOOL	Polymer fiber DIY case, consisting of: Stripping knife, stripping pliers, polishing wheels for F-SMA and SCRJ quick mounting connectors, polishing pad and emery paper
2799348	PSM-SET-FSMA-POLISH	Polymer fiber polishing set, for F-SMA quick mounting connectors
2744623	PSM-STRIP-FC/PROFIB	Quick stripping tool for PROFIBUS cable, type Fast Connect
1205037	SZS 0,4X2,5 VDE	Screwdriver, bladed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

**Diagrams/Drawings**

Application drawing

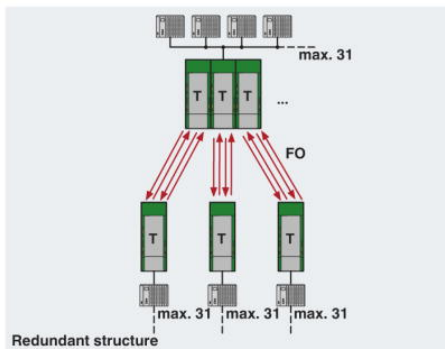


Redundant point-to-point connection

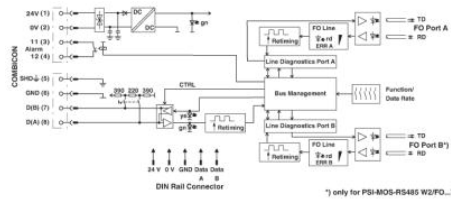


Redundant structure

Tree structure



Block diagram



\*) only with PSI-MOS.../FO...T

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