

PSI-MOS-RS485W2/FO 660 E

Order No.: 2708313




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2708313>

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



Commercial data

| | |
|--------------------------|--|
| GTIN (EAN) |  4 017918 974015 |
| 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 | -4.6 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 | 85 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 _{rms} (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 | 358 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day)) |
| | 73 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 |
|------------------------|----------------------------|--|
| Cable/conductor | | |
| 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 |

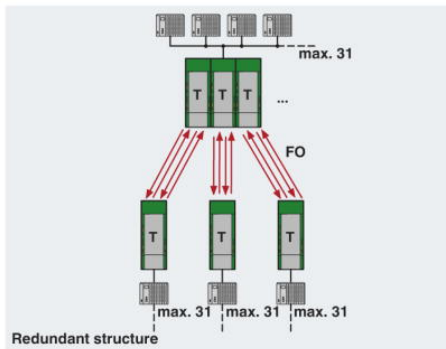
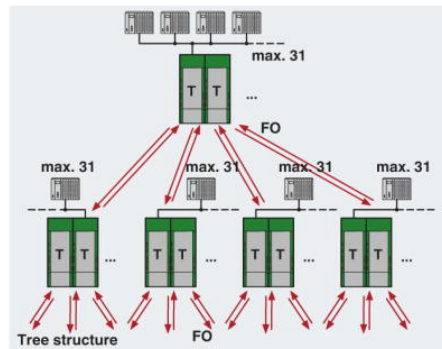
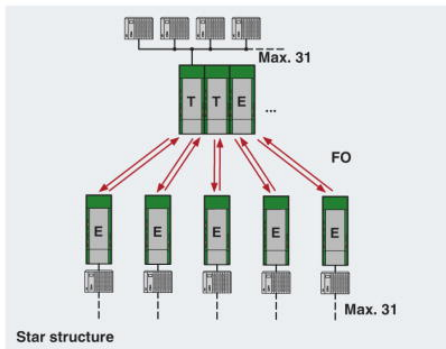
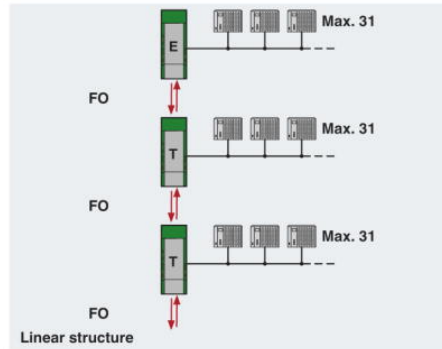
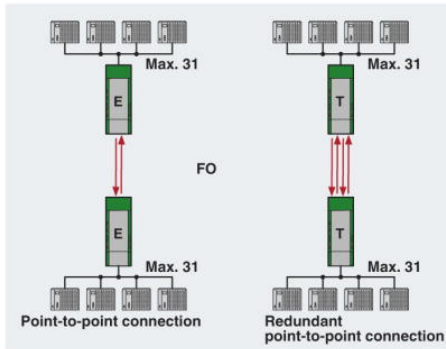
General

| | | |
|---------|--------------------------------|---|
| 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 |
| 2708300 | PSI-MOS-RS485W2/FO 660 T | 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 |
| 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 |

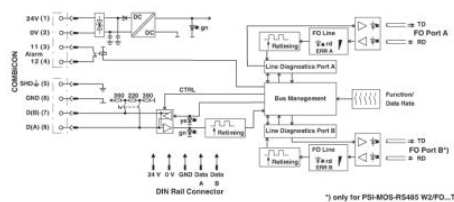
| Plug/Adapter | | |
|---------------------|---------------------|---|
| 2799416 | PSM-SET-FSMA-LINK/2 | Coupling; set consisting of 2 couplings for connecting F-SMA plugs |
| 2799487 | PSM-SET-FSMA/4-HCS | F-SMA plug set for HCS fiber, for self assembly consisting of 4 quick mounting connectors with bend protection sleeve |
| 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 |
| 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



Block diagram



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

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