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Bus system flush-type plug, PROFIBUS, 2-pos., M12, shielded, B-coded, rear/screw mounting with M16 thread, with 1 m bus cable, $2 \times 0.25 \text{ mm}^2$

Why buy this product

- Pre-assembled with cables in various standard lengths for immediate use
- Customer-specific assemblies and cable lengths can be supplied
- Sealed on the cable side for optimum tightness of seal
- Cable designs for all common networks and fieldbuses
- For high transmission safety: shield connection to the housing with optional EMC nut



Key Commercial Data

| Packing unit | 1 STK |
|--------------------------------------|-----------------|
| GTIN | 4 046356 026529 |
| Weight per Piece (excluding packing) | 82.7 g |
| Custom tariff number | 85444290 |
| Country of origin | Germany |

Technical data

Dimensions

| Length of cable | 1 m |
|-----------------|-----|

Ambient conditions

| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection | IP67 |

General

| I NOIE | The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if |
|--------|--|
| | 09/06/2016 Dags 1 / F |



Technical data

General

| | there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration. |
|-----------------------------|---|
| Rated current at 40°C | 4 A |
| Rated voltage | 60 V |
| Rated surge voltage | 1.5 kV |
| Number of positions | 2 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | B - inverse |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Test voltage | 2500 V |
| Insertion/withdrawal cycles | > 100 |

Material

| Flammability rating according to UL 94 | V0 |
|--|---------------------|
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 66 |
| Material, knurls | Nickel-plated brass |
| Sealing material | FKM |

Standards and Regulations

| Standard designation | M12 connector |
|--|-----------------|
| Standards/regulations | IEC 61076-2-101 |
| Flammability rating according to UL 94 | V0 |

Cable

| Cable type | PROFIBUS |
|------------------------------------|--|
| Cable type (abbreviation) | 910 |
| UL AWM style | 21198 (80°C/300 V) |
| Signal type/category | PROFIBUS |
| Cable structure | 1x2xAWG24/19 |
| Conductor cross section | 2x 0.25 mm² (Signal line) |
| AWG signal line | 24 |
| Conductor structure signal line | 19x 0.13 mm |
| Core diameter including insulation | 2.55 mm ±0.07 mm |
| Wire colors | Red, green |
| Overall twist | 2 cores with 2 fillers to the core |
| Shielding | Plastic-coated aluminum foil, tinned copper braided shield |



Technical data

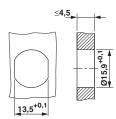
Cable

| Optical shield covering | 85 % |
|---|---|
| External sheath, color | violet RAL 4001 |
| External cable diameter D | 7.8 mm ±0.2 mm |
| Smallest bending radius, fixed installation | 40 mm |
| Smallest bending radius, movable installation | 65 mm |
| Number of bending cycles | 4000000 |
| Bending radius | 65 mm |
| Traversing path | 4.5 m |
| Traversing rate | 3 m/s |
| Acceleration | 3 m/s ² |
| Outer sheath, material | PUR |
| Material, filler | PP |
| Material conductor insulation | Foam-Skin PP |
| Conductor material | Tin-plated Cu litz wires |
| Insulation resistance | $\geq 5~G\Omega^*km$ |
| Conductor resistance | \leq 78.6 Ω /km |
| Cable capacity | nom. 30 pF/m |
| Wave impedance | 150 Ω ±10 % (3 MHz 20 MHz) |
| Wave attenuation | ≤ 0.049 dB/m (at 16 MHz) |
| Nominal voltage, cable | 30 V |
| Test voltage Core/Core | 1500 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 1500 V (50 Hz, 1 min.) |
| Flame resistance | UL 1581, Sec. 1060 (FT-1) |
| | IEC 60332-1-2 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | According to IEC 60754-1 |
| Other resistance | Low adhesion |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -30 °C 80 °C (cable, flexible installation) |
| | ≤ 70 °C (cable, drag chain applications) |
| Ambient temperature (storage/transport) | -40 °C 80 °C |

Drawings



Dimensional drawing



Schematic diagram



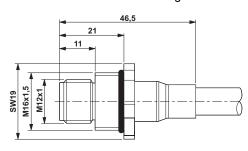
Pin assignment M12 male connector, 5-pos., B-coded, male side

Housing cutout for M16 fastening thread, mounting panel with feedthrough hole (alternatively with surface as protection against rotation)

Cable cross section



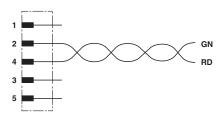
Dimensional drawing



PROFIBUS [910]

M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug

Classifications

eCl@ss

| eCl@ss 4.0 | 27140815 |
|------------|----------|
| eCl@ss 4.1 | 27140815 |
| eCl@ss 5.0 | 27143423 |
| eCl@ss 5.1 | 27143423 |
| eCl@ss 6.0 | 27143423 |
| eCl@ss 7.0 | 27449001 |
| eCl@ss 8.0 | 27440103 |
| eCl@ss 9.0 | 27440102 |



Classifications

ETIM

| ETIM 2.0 | EC001297 |
|----------|----------|
| ETIM 3.0 | EC002061 |
| ETIM 4.0 | EC000830 |
| ETIM 5.0 | EC002061 |

UNSPSC

| UNSPSC 6.01 | 31251501 |
|---------------|----------|
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |

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