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Bus system flush-type plug, PROFIBUS, 2-pos., M12, shielded, B-coded, rear/screw mounting with M16 thread, with 5 m bus cable, $2 \times 0.25 \text{ mm}^2$

Your advantages

- 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 pc
GTIN	4 046356 026543
GTIN	4046356026543
Weight per Piece (excluding packing)	322.000 g
Custom tariff number	85444290
Country of origin	Germany

Technical data

Dimensions

Length of cable	5 m
Ambient conditions	

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

General

Note	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if
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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	\geq 100 MΩ
Coding	B - inverse
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Overvoltage category	11
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 6.6
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 mm ² (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

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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
Cable weight	90 kg/km
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 Ω^* km
Conductor resistance	\leq 78.6 Ω /km
Cable capacity	nom. 30 pF/m
Wave impedance	150 Ω ±10 % (3 MHz 20 MHz)
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)
	\leq 70 °C (cable, drag chain applications)
Ambient temperature (storage/transport)	-40 °C 80 °C

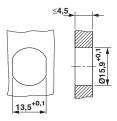
Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings



Dimensional drawing



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

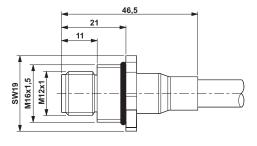
Cable cross section



Dimensional drawing

Schematic diagram

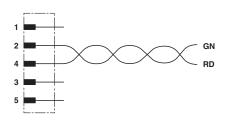
Pin assignment M12 male connector, 5-pos., B-coded, male side



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	27143400
eCl@ss 6.0	27279200
eCl@ss 7.0	27440103
eCl@ss 8.0	27440103
eCl@ss 9.0	27440102

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Classifications

ETIM

ETIM 2.0	EC001297
ETIM 3.0	EC002061
ETIM 4.0	EC000830
ETIM 5.0	EC002061
ETIM 6.0	EC002061

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	39121413

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

	EAC	EAC	B.00767
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