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Bus system flush-type plug, PROFIBUS, 2-pos., M12, shielded, B-coded, rear/screw mounting with M16 thread, with 2 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
- For high transmission safety: shield connection to the housing with optional EMC nut



Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 026536
GTIN	4046356026536

Technical data

Dimensions

Length of cable	2 m
Ambient conditions	

Ambient conditions

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

General

	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if 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



Technical data

General

Rated voltage	60 V
Rated surge voltage	1.5 kV
Number of positions	2
Insulation resistance	\geq 100 M Ω
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 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 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
Optical shield covering	85 %
External sheath, color	violet RAL 4001
External cable diameter D	7.8 mm ±0.2 mm



Technical data

Cable

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/s²
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	$\geq 5 \text{ G}\Omega^*\text{km}$
Conductor resistance	≤ 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)
	≤ 70 °C (cable, drag chain applications)
Ambient temperature (storage/transport)	-40 °C 80 °C

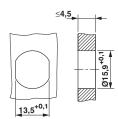
Environmental Product Compliance

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



Schematic diagram



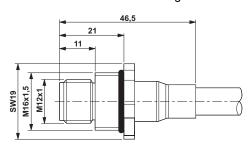
Pin assignment M12 male connector, 5-pos., B-coded, male side

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

Cable cross section



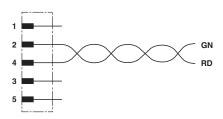
Dimensional drawing



PROFIBUS [910]

M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug

Approvals

Approvals

Approvals

EAC

Ex Approvals



Approvals

Approval details



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