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



Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 022309

Technical data

Dimensions

Length of cable	1 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 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



Technical data

General

Degree of pollution	3
Test voltage	2500 V
Connection method	PROFIBUS
Insertion/withdrawal cycles	> 100
Mounting type	Front mounting M16 x 1.5 With locking nut

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	NBR

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
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



Technical data

Cable

Acceleration	3 m/s²
Outer sheath, material	PUR
Material, filler	PP
Material conductor insulation	Foam-Skin PP
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 5 GΩ*km
Conductor resistance	≤ 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

Classifications

eCl@ss

eCl@ss 4.0	27140815
eCl@ss 4.1	27140815
eCI@ss 5.0	27143423
eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCI@ss 7.0	27449001
eCl@ss 8.0	27440103

ETIM

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



Classifications

UNSPSC

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

Approvals

Α	D	a	r	O	V	a	ls

Approvals

EAC

Ex Approvals

Approvals submitted

Approval details

EAC

Drawings

Dimensional drawing



Schematic diagram



Housing cutout for M16 fastening thread, mounting panel with thread

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

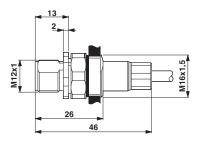


Cable cross section



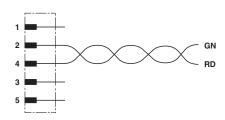
PROFIBUS [910]

Dimensional drawing



M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug

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