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Bus system flush-type plug, DeviceNet/CANopen, 5-pos., M12, shielded, A-coded, rear/screw mounting with M16 thread, with 1 m bus cable,  $2 \times 0.2 \text{ mm}^2$ ,  $2 \times 0.32 \text{ mm}^2$ 



### Key commercial data

Packing unit	11
Weight per Piece (excluding packing)	90.6 GRM
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)

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

#### General

Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	5
Contact resistance	$\leq$ 3 m $\Omega$
Insulation resistance	$\geq$ 100 M $\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Surge voltage category	П

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### Technical data

#### General

Pollution degree	3
Test voltage	2500 V

#### Material

Inflammability class 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

#### Cable

Cable type	CAN Bus/DeviceNet
Cable type (abbreviation)	920
Conductor cross section	2x 0.25 mm² (signal line)
	2x 0.34 mm <sup>2</sup> (Power supply)
	1x 0.34 mm² (Drain wire)
AWG signal line	24
AWG power supply	22
Conductor structure signal line	19x 0.13 mm
Conductor structure, voltage supply	19x 0.15 mm
Core diameter including insulation	1.95 mm ±0.05 mm (signal line)
	1.4 mm ±0.05 mm (Power supply)
Wire colors	Red-black, blue-white
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined polyester foil
Overall twist	2 pairs around a drain wire in the center to the core
Shielding	Tinned copper braided shield
Optical shield covering	80 %
External sheath, color	Violet, RAL 4001
External cable diameter D	6.7 mm ±0.3 mm
Smallest bending radius, fixed installation	67 mm
Smallest bending radius, movable installation	67 mm
Number of bending cycles	2000000
Bending radius	67 mm
Traversing path	4.5 m
Traversing rate	3 m/s



## Technical data

Cable

Acceleration	3 m/s <sup>2</sup>
Outer sheath, material	PUR
Material conductor insulation	Foamed PE (signal line)
	PE (Power supply)
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq$ 5 G $\Omega^*$ km (signal line)
	$\geq$ 5 G $\Omega^*$ km (Power supply)
Working capacitance	nom. 40 nF (signal line)
Wave impedance	120 $\Omega$ ± 12 $\Omega$ (with 1 MHz)
Nominal voltage, cable	max. 300 V
Test voltage, cable	2000 V (50 Hz, 1 min.)
Flame resistance	UL 1581, Sec. 1060 (FT-1)
	IEC 60332-1
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-20 °C 70 °C (cable, flexible installation)

# 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	27449001

#### ETIM

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

### UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501



### Classifications

UNSPSC

UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

### Approvals

#### Approvals

Approvals

GOST / GOST

#### Ex Approvals

Approvals submitted

#### Approval details

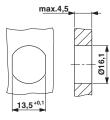
GOST 🞯

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Drawings



#### Dimensioned drawing

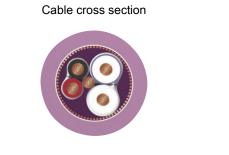


Housing cutout for M16 fastening thread, mounting panel with feedthrough hole (alternatively with surface as protection against rotation)

# Schematic diagram

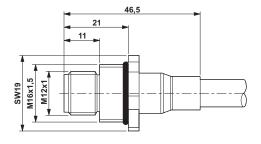


Pin assignment M12 male connector, 5-pos., A-coded, male side



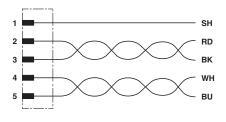
CAN Bus/DeviceNet [920]

Dimensioned drawing



M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug

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