

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)



Bus system flush-type female connector, INTERBUS, 5-pos., M12, shielded, B-coded, front/screw mounting with M16 thread, can be positioned, with 2 m bus line

#### 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
- For high transmission safety: shield connection to the housing with optional EMC nut



#### **Key Commercial Data**

Packing unit	1 pc
GTIN	4 017918 982676
GTIN	4017918982676

#### Technical data

#### **Dimensions**

Length of cable	2 m
	-

#### Ambient conditions

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
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.
------	--



### Technical data

#### General

Rated current at 40°C	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Rated voltage	48 V AC
	60 V DC
Rated surge voltage	1.5 kV
Number of positions	5
Insulation resistance	$\geq$ 100 M $\Omega$
Coding	B - inverse
Standards/regulations	M12 connector IEC 61076-2-101
Signal type/category	INTERBUS, 16 Mbps
Status display	No
Overvoltage category	II II
Degree of pollution	3
Test voltage	2500 V
Insertion/withdrawal cycles	> 100
Torque	3 Nm 4 Nm (Installation-side)

#### 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	NBR

#### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
Flammability rating according to UL 94	V0
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	The products are suitable for applications in plant, controller, and electrical device engineering.
	When operating the connectors in outdoor applications, they must be separately protected against environmental influences.



### Technical data

### Standards and Regulations

Assembled products may not be manipulated or improperly opened.
Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
When using the product in direct connection with third-party manufacturers, the user is responsible.
For operating voltages > 50 V AC, conductive connector housings must be grounded
Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
Observe the corresponding technical data. You will find information:     o On the product     o On the packing label     o In the supplied documentation     o Online at phoenixcontact.com/products under the product
Only use tools recommended by Phoenix Contact
Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products
Ensure that the protective or functional ground has been properly connected.
VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

#### Cable

Cable type	INTERBUS
Cable type (abbreviation)	900
Signal type/category	INTERBUS
Cable structure	3 x 2 x 0.22 mm <sup>2</sup>
Conductor cross section	3x 2x 0.22 mm²
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Wire colors	Green-yellow, white-brown, gray-pink
Twisted pairs	2 cores to the pair
Overall twist	3 pairs to the core
Shielding	Braided copper wires
External sheath, color	may green RAL 6017
External cable diameter D	8 mm
Minimum bending radius, fixed installation	7.5 x D
Minimum bending radius, flexible installation	15 x D
Number of bending cycles	5000000



### Technical data

#### Cable

Bending radius	120 mm
Traversing path	10 m
Traversing rate	1.6 m/s
Acceleration	3.2 m/s²
Cable weight	70 kg/km
Outer sheath, material	PUR
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq 5~G\Omega^*$ km
Loop resistance	≤ 159.80 Ω/km
Cable capacity	≤ 60 nF/km (At 800 Hz)
Wave impedance	120 Ω ±20 % (at 64 kHz)
	100 Ω ±15 % (with 1 MHz)
Near end crosstalk attenuation (NEXT)	≥ 61 dB (at 772 kHz)
	≥ 59 dB (with 1 MHz)
	≥ 55 dB (at 2 MHz)
	≥ 50 dB (at 4 MHz)
	≥ 46 dB (at 8 MHz)
	≥ 44 dB (at 10 MHz)
	≥ 41 dB (at 16 MHz)
	≥ 40 dB (at 20 MHz)
Attenuation	≤ 15 dB/km (at 256 kHz)
	≤ 24 dB/km (at 772 kHz)
	≤ 27 dB/km (with 1 MHz)
	≤ 52 dB/km (at 4 MHz)
	≤ 84 dB/km (at 10 MHz)
	≤ 112 dB/km (at 16 MHz)
	≤ 119 dB/km (at 20 MHz)
Signal speed	0.66 c
Coupling resistance	< 250.00 mΩ/m (at 30 MHz)
Nominal voltage, cable	250 V (Peak value, not for high-power applications)
Test voltage Core/Core	1500 V <sub>rms</sub>
Test voltage Core/Shield	
Flame resistance	1000 V <sub>rms</sub>
	1000 V <sub>rms</sub> according to VDE 0472, Part 4, test type B
Ambient temperature (operation)	according to VDE 0472, Part 4, test type B

#### **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1



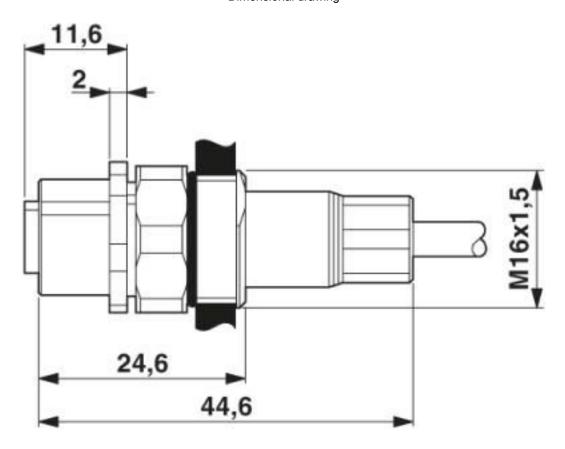
### Technical data

#### **Environmental Product Compliance**

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### **Drawings**

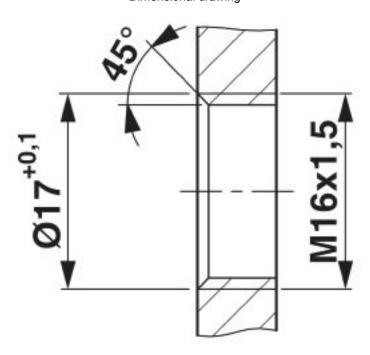
#### Dimensional drawing



M12 flush-type socket, can be positioned

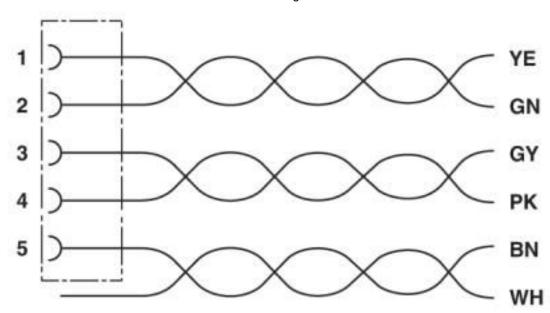


Dimensional drawing



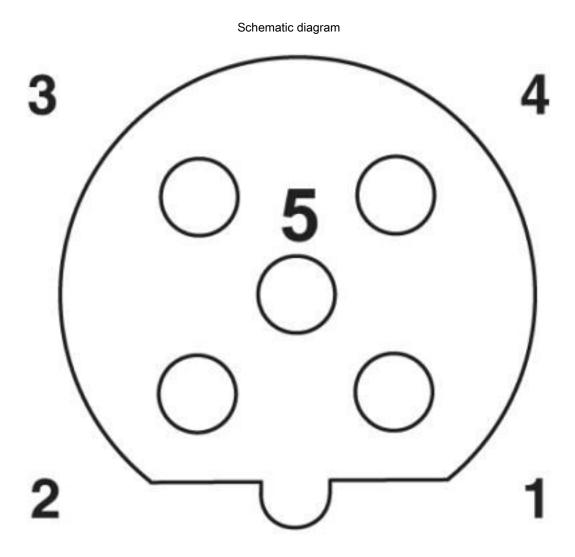
Housing cutout for M16 fastening thread, mounting panel with thread

Circuit diagram



Contact assignment of the M12 socket

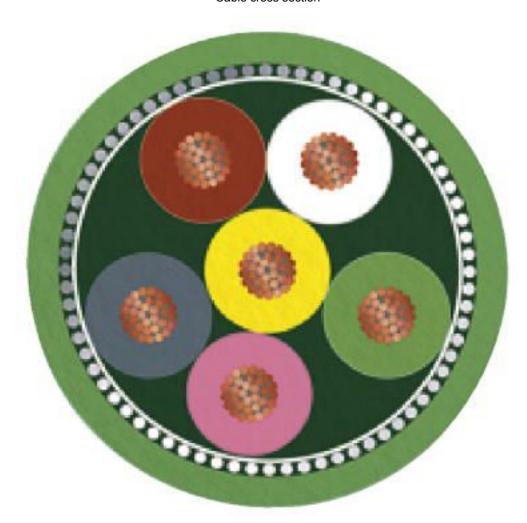




Pin assignment M12 socket, 5-pos., B-coded, female side



Cable cross section



INTERBUS [900]

#### Classifications

### eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27143400
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311



### Classifications

#### **ETIM**

ETIM 2.0	EC001297
ETIM 3.0	EC002061
ETIM 4.0	EC000830
ETIM 5.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855

#### **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	39121413
UNSPSC 19.0	31251501
UNSPSC 20.0	31251501
UNSPSC 21.0	31251501

Approvals		
Approvals		
Approvals		
EAC		
Ex Approvals		
Approval details		

EAC []



Phoenix Contact 2020 © - all rights reserved http://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG Flachsmarktstr. 8 32825 Blomberg Germany Tel. +49 5235 300

Fax +49 5235 3 41200

http://www.phoenixcontact.com

### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Sensor Cables / Actuator Cables category:

Click to view products by Phoenix Contact manufacturer:

Other Similar products are found below:

```
60963 60964 703000D02F2002 703001D02F0602 703001D02F300 704000D02F120 773032K02F030 802027107404-1 802027213811-1 804001A09M150 805001A09M0502 84914-0235 84914-0237 885030A09M020 1200651332 1200651713 1200660844 1200660845 1200661173 1200680071 1200720053 1200720081 1200720099 1200720217 1200800231 1200860125 1200870123 1200980102 1200650267 1200650298 1200660183 1200660782 1200660849 1200661295 1200661297 1200661342 1200661343 1200670080 1200670220 1200680331 1200720252 1200730184 1200860344 1200870359 1200870643 1200980008 1200980031 1210502211 1210400542 1211810021
```