

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)



Sensor/actuator flush-type plug, 4-pos., M12, A-coded, front/screw mounting with Pg9 thread, with 0.5 m TPE litz wire,  $4 \times 0.34 \text{ mm}^2$ , stainless steel version

#### Your advantages

- ☑ Pre-assembled with litz wires for immediate use
- Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- For high transmission safety: shield connection to the housing with optional EMC nut



### **Key Commercial Data**

| Packing unit | 1 pc            |
|--------------|-----------------|
| GTIN         | 4 046356 170307 |
| GTIN         | 4046356170307   |

#### Technical data

#### **Dimensions**

| Length of cable | 0.5 m |
|-----------------|-------|

#### Ambient conditions

| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket)                |
|---------------------------------|---|
|                                 | -40 °C 85 °C (without mechanical actuation) |
| Degree of protection            | IP65/IP67/IP69/IP69K                        |
|                                 | IP69K                                       |

### 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               | 250 V                         |
|-----------------------------|-------------------------------|
| Rated surge voltage         | 2.5 kV                        |
| Number of positions         | 4                             |
| Insulation resistance       | > 100 MΩ                      |
| Coding                      | A - standard                  |
| Standards/regulations       | M12 connector IEC 61076-2-101 |
| Status display              | No                            |
| Overvoltage category        | II                            |
| Degree of pollution         | 3                             |
| Connection method           | Individual wires              |
| Insertion/withdrawal cycles | > 100                         |
| Torque                      | 3 Nm 4 Nm (Installation-side) |
| Mounting type               | Front mounting Pg9            |

### Material

| Flammability rating according to UL 94 | V0              |
|--|-----------------|
| Contact material                       | Cu alloy        |
| Contact surface material               | Au              |
| Contact carrier material               | PA66 GF         |
| Material, knurls                       | Stainless steel |
| Sealing material                       | FKM             |

### Cable

| Cable type                         | TPE litz wire                               |
|------------------------------------|---|
| Conductor cross section            | 0.34 mm²                                    |
| AWG signal line                    | 22  |
| Conductor structure signal line    | 7x 0.25 mm                                  |
| Core diameter including insulation | 1.2 mm ±0.07 mm                             |
| Thickness, insulation              | 0.21 mm                                     |
| Wire colors                        | brown, white, blue, black                   |
| Material conductor insulation      | TPE   |
| Conductor material                 | Tin-plated Cu litz wires                    |
| Standards/specifications           | M12 connector IEC 61076-2-101               |
| Insulation resistance              | ≥ 20 MΩ*km                                  |
| Conductor resistance               | ≤ 57.6 Ω/km                                 |
| Nominal voltage, cable             | 300 V                                       |
| Test voltage, cable                | 2000 V AC                                   |
| Ambient temperature (operation)    | -40 °C 85 °C (cable, fixed installation)    |
|                                    | -25 °C 85 °C (cable, flexible installation) |

### Standards and Regulations

|--|



### Technical data

### Standards and Regulations

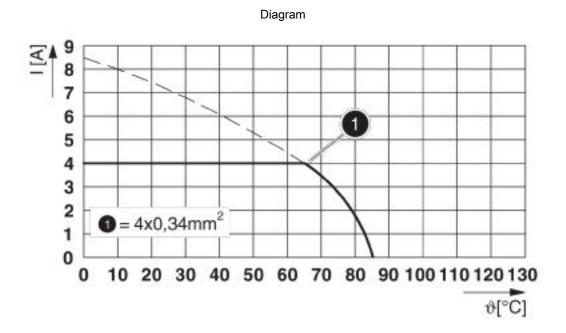
| Flammability rating according to UL 94 | V0   |
|--|--|
| Safety note                            | WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.   |
|  | WARNING: Commission properly functioning products 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.   |
|  | 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).   |

### **Environmental Product Compliance**

| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|------------|---|
|            | No hazardous substances above threshold values          |

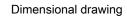
### Drawings

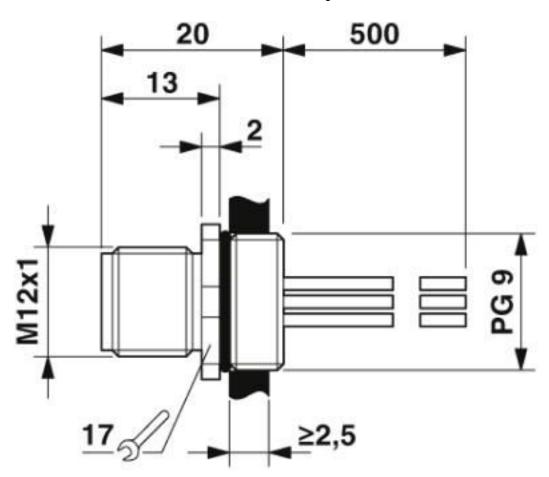




I = current strength, T = ambient temperature



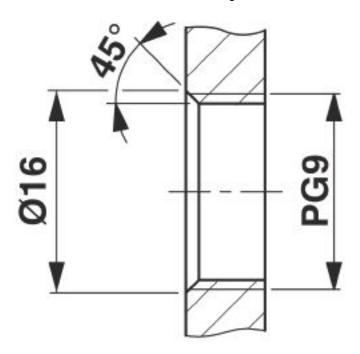




M12 flush-type plug

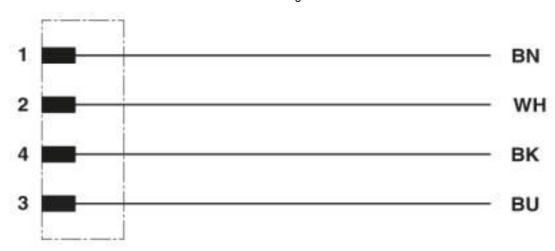


Dimensional drawing



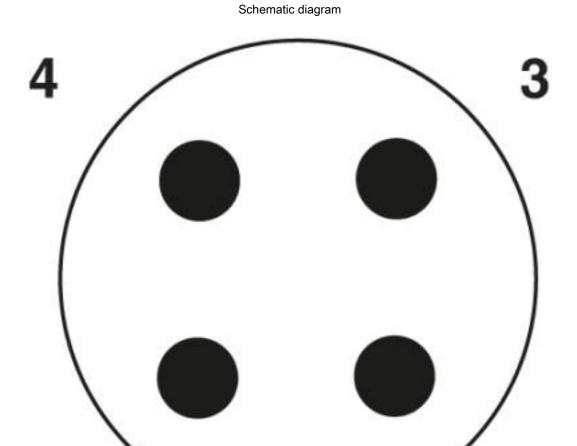
Housing cutout for Pg9 fastening thread, mounting panel with thread

Circuit diagram



Contact assignment of the M12 plug and the M12 socket





Pin assignment M12 plug, 4-pos., A-coded, view plug side

### Classifications

### eCl@ss

| eCl@ss 10.0.1 | 27440102 |
|---------------|----------|
| 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    | 27440103 |
| eCl@ss 8.0    | 27440103 |
| eCl@ss 9.0    | 27440102 |



### Classifications

### **ETIM**

| ETIM 3.0 | EC002061 |
|----------|----------|
| ETIM 4.0 | EC002062 |
| 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 |
| UNSPSC 18.0   | 39121413 |
| UNSPSC 19.0   | 39121413 |
| UNSPSC 20.0   | 39121413 |
| UNSPSC 21.0   | 39121413 |

### Approvals

### Approvals

Approvals

UL Recognized / EAC / cULus Recognized

Ex Approvals

### Approval details

| UL Recognized      | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 118976 |
|--------------------|---|
|                    |   |
| Nominal voltage UN | 250 V   |
| Nominal current IN | 4 A   |
| mm²/AWG/kcmil      | 22  |

| EAC | EAC | B.01687 |
|-----|-----|---------|
|-----|-----|---------|



### Approvals

| cULus Recognized   | c <b>911</b> us | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474-20140616 |       |  |
|--------------------|-----------------|--|-------|--|
|                    |                 |  |       |  |
| Nominal voltage UN |                 |  | 250 V |  |
| Nominal current IN |                 |  | 4 A   |  |
| mm²/AWG/kcmil      |                 |  | 22-20 |  |

### Accessories

Accessories

Circular connectors (device side)

Flat nut - SACC-PG9-NUT-VA - 1404984



Flat nut with Pg9 thread

### Protective cap

Sealing cap - PROT-M12 FS - 1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

Sealing cap - PROT-M12 FS-M - 1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

Seal



### Accessories

Flat gasket - SACC-PG9-SEAL CLM - 1556320



Pg9 flat gasket for the rear mounting of M12 flush-type connectors with Pg9 fastening threads

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 8R4J30E03C3003 1200651332 1200651713 1200660844 1200660845 1200661173 1200680071 1200720053 1200720081 1200720099 1200720217 1200800231 1200860125 1200870123 1200980102 1200650267 1200650298 1200660183 1200660782 1200660849 1200661295 1200661297 1200661342 1200661343 1200670080 1200670020 1200670220 1200680331 1200720252 1200730184 1200860344 1200870359 1200870643 1200980008 1200980031 1210502211 1210400542
```