


**SAC-3P-10,0-PUR/M12FR B**

Order No.: 1681017

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1681017>

Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Free conductor end, on Socket, angled M12, A-coded, PIN 2+4 bridged, Cable length: 10 m

**Commercial data**

|                          |  |
|--------------------------|--|
| GTIN (EAN)               | <br>4 017918 185138 |
| sales group              | D110   |
| Pack                     | 1 pcs.   |
| Customs tariff           | 85444290   |
| Catalog page information | Page 122 (PC-2011)   |

**Product notes**

WEEE/RoHS-compliant since:  
08/01/2005



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

**Technical data****General data**

|                       |        |
|-----------------------|--------|
| Rated current at 40°C | 4 A    |
| Rated voltage         | 250 V  |
| Number of positions   | 3      |
| Volume resistance     | ≤ 5 mΩ |

|  |  |
|--|--|
| Insulation resistance                      | ≥ 100 MΩ   |
| Length of cable                            | 10 m   |
| Stripping length of the free conductor end | 50 mm  |
| Ambient temperature (operation)            | -25 °C ... 90 °C (Male connector / female connector) |

#### General characteristics

|                             |   |
|-----------------------------|---|
| Standards/regulations       | M12 connector IEC 61076-2-101               |
| Coding                      | A - standard                                |
| Surge voltage category      | II  |
| Pollution degree            | 3   |
| Degree of protection        | IP65/IP68/IP69K                             |
| Insertion/withdrawal cycles | ≥ 100                                       |
| Torque                      | 0.4 Nm (M12 connector)                      |
| Contact material            | CuSn  |
| Contact surface material    | Ni/Au                                       |
| Contact carrier material    | TPU GF                                      |
| Material of grip body       | TPU, hardly inflammable, self-extinguishing |
| Material, knurls            | Zinc die-cast, nickel-plated                |
| Sealing material            | NBR   |
| Status display              | No  |

#### Conductor data

|                                    |                                     |
|------------------------------------|-------------------------------------|
| Cable type                         | PUR halogen-free black              |
| Cable type (abbreviation)          | PUR                                 |
| Cable abbreviation                 | LI9Y11Y                             |
| UL AWM Style                       | 20549                               |
| Conductor cross section            | 0.34 mm <sup>2</sup>                |
| AWG signal line                    | 22                                  |
| Conductor structure signal line    | 42x 0.10 mm                         |
| Core diameter including insulation | 1.27 mm ±0.02 mm                    |
| Thickness, insulation              | ≥ 0.21 mm (Core insulation)         |
|                                    | Approx. 0.8 mm (Outer cable sheath) |
| External cable diameter            | 4.4 mm ±0.15 mm                     |
| Wire colors                        | Brown, blue, black                  |
| External sheath, color             | Black-gray RAL 7021                 |
| Insulation resistance              | ≥ 100 GΩ*km (at 20°C)               |

|   |  |
|---|--|
| Conductor resistance                          | max. 58 Ω/km (at 20°C)   |
| Nominal voltage, conductor                    | ≤ 300 V  |
| Test voltage, conductor                       | ≥ 3000 V   |
| Overall twist                                 | 3 wires, twisted   |
| Outer sheath, material                        | PUR  |
| Material conductor insulation                 | PP   |
| Conductor material                            | Bare Cu litz wires   |
| Cable weight                                  | 26 kg/km   |
| Smallest bending radius, fixed installation   | 22 mm  |
| Smallest bending radius, movable installation | 44 mm  |
| Number of bending cycles                      | 4000000  |
| Bending radius                                | 44 mm  |
| Traversing path                               | 10 m   |
| Traversing rate                               | 3 m/s  |
| Acceleration                                  | 10 m/s <sup>2</sup>  |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)<br>-5 °C ... 80 °C (cable, flexible installation)                         |
| Special properties                            | Flexible cable conduit capable<br>Silicone-free<br>Free of substances which would hinder coating with paint or varnish |
| Flame resistance                              | in accordance with DIN UL-Style 20549  |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815   |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1  |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents<br>hydrolysis and microbe resistant                         |

#### Certificates / Approvals

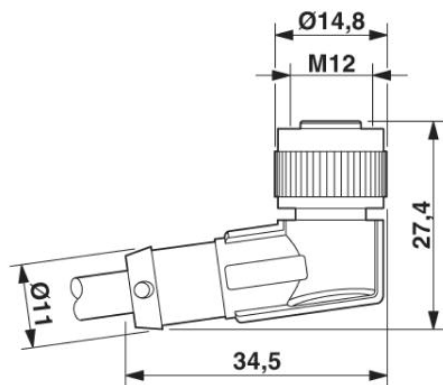


Certification

CUL Listed, GOST, UL Listed

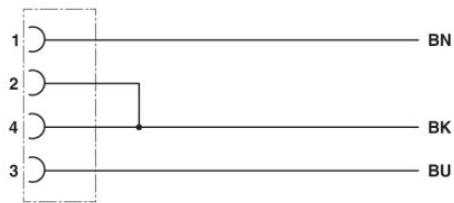
## Diagrams/Drawings

Dimensioned drawing



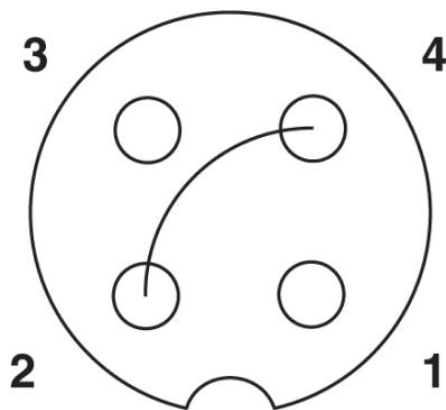
M12 x 1 female connector, angled

Circuit diagram



Contact assignment of the M12 socket

Schematic diagram



Pin assignment M12 socket, 3-pos., PIN 2+4 bridged, A-coded, view female side

**Address**

PHOENIX CONTACT Inc., USA  
586 Fulling Mill Road  
Middletown, PA 17057, USA  
Phone (800) 888-7388  
Fax (717) 944-1625  
<http://www.phoenixcon.com>



© 2011 Phoenix Contact  
Technical modifications reserved;