


**SAC-4P-M12MS/ 1,5-PUR**

Order No.: 1668043

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1668043>

Sensor/Actuator cable, 4-position, PUR, halogen-free, Black-gray RAL 7021, Plug, straight M12, A-coded, on Free conductor end, Cable length: 1.5 m

**Commercial data**

|                          |   |
|--------------------------|---|
| GTIN (EAN)               | <br>4 017918 136659 |
| sales group              | D111  |
| Pack                     | 1 pcs.  |
| Customs tariff           | 85444290  |
| Catalog page information | Page 82 (PC-2009)   |

**Product notes**WEEE/RoHS-compliant since:  
12/01/2005

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

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

|  |  |
|--|--|
| Insulation resistance                      | ≥ 100 MΩ   |
| Length of cable                            | 1.5 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                                       |
| 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)              |
| Status display              | No  |

**Conductor data**

|                                    |                               |
|------------------------------------|-------------------------------|
| Cable type                         | PUR halogen-free black        |
| Cable type (abbreviation)          | PUR                           |
| Cable abbreviation                 | Li9Y11Y-HF                    |
| 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)   |
|                                    | ≥ 0.8 mm (Outer cable sheath) |
| External cable diameter            | 4.7 mm ±0.15 mm               |
| Wire colors                        | Black, brown, blue, white     |
| External sheath, color             | Black-gray RAL 7021           |
| Insulation resistance              | ≥ 100 MΩ*km                   |
| Conductor resistance               | ≤ 58 Ω/km (at 20°C)           |
| Nominal voltage, conductor         | ≤ 300 V                       |
| Test voltage, conductor            | ≥ 3000 V                      |

|   |  |
|---|--|
| Overall twist                                 | 4 wires, twisted   |
| Length of twist, overall twist                | 49.5 mm  |
| Outer sheath, material                        | PUR  |
| Material conductor insulation                 | PP   |
| Conductor material                            | Bare Cu litz wires   |
| Cable weight                                  | 30 kg/km   |
| Smallest bending radius, fixed installation   | 23.5 mm  |
| Smallest bending radius, movable installation | 47 mm  |
| Number of bending cycles                      | 4000000  |
| Bending radius                                | 47 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>-25 °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<br>in accordance with FT1 as per UL 758  |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815<br>in accordance with DIN EN 50267-2-1  |
| 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

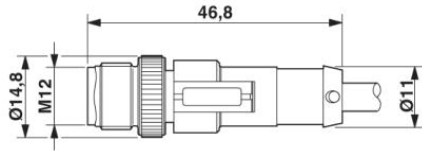


Certification

CUL Listed, GOST, UL Listed

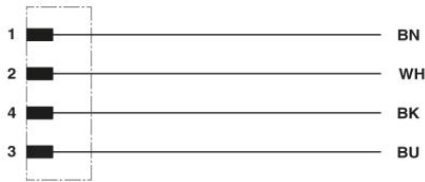
## Diagrams/Drawings

### Dimensioned drawing



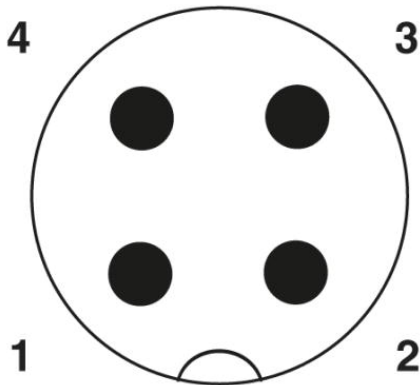
M12 x 1 male connector, straight

### Circuit diagram



Contact assignment of the M12 plug

### Schematic diagram



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

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