

**SAC-4P-M12MR/1,5-PUR/M 8FR**

Order No.: 1671577

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1671577>

Sensor/Actuator cable, 4-position, PUR, halogen-free, Black-gray  
RAL 7021, Plug, angled M12, A-coded, on Socket, angled M8, Cable  
length: 1.5 m

**Commercial data**

|                          |                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------|
| GTIN (EAN)               | <br>4 017918 146634 |
| Note                     | Made-to-order                                                                                          |
| sales group              | D131                                                                                                   |
| Pack                     | 1 pcs.                                                                                                 |
| Customs tariff           | 85444290                                                                                               |
| Catalog page information | Page 82 (PC-2009)                                                                                      |

**Product notes**

WEEE/RoHS-compliant since:  
06/01/2005



[http://  
www.download.phoenixcontact.com](http://www.download.phoenixcontact.com)  
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**Technical data****General data**

|                       |        |
|-----------------------|--------|
| Rated current at 40°C | 4 A    |
| Rated voltage         | 30 V   |
| Number of positions   | 4      |
| Volume resistance     | ≤ 5 mΩ |

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Insulation resistance           | $\geq 100 \text{ M}\Omega$                           |
| Length of cable                 | 1.5 m                                                |
| 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 | $\geq 100$                                  |
| 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)              |
| Sealing material            | NBR                                         |
| Status display              | No                                          |

#### Conductor data

|                                    |                                            |
|------------------------------------|--------------------------------------------|
| Cable type                         | PUR halogen-free black                     |
| Cable type (abbreviation)          | PUR                                        |
| Cable abbreviation                 | Li9Y11Y-HF                                 |
| Conductor cross section            | 0.25 mm <sup>2</sup>                       |
| AWG signal line                    | 24                                         |
| Conductor structure signal line    | 32 x 0.10 mm                               |
| Core diameter including insulation | 1.17 mm $\pm$ 0.02 mm                      |
| Thickness, insulation              | Approx. 0.21 mm (Core insulation)          |
|                                    | Approx. 0.7 mm (Outer cable sheath)        |
| External cable diameter            | 4.40 mm                                    |
| Wire colors                        | Brown, white, blue, black                  |
| External sheath, color             | Black-gray RAL 7021                        |
| Insulation resistance              | $\geq 100 \text{ M}\Omega \cdot \text{km}$ |
| Conductor resistance               | $\leq 78 \text{ }\Omega/\text{km}$         |
| Nominal voltage, conductor         | 300 V                                      |
| Test voltage, conductor            | 3000 V                                     |

|                                               |                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|
| Overall twist                                 | 4 wires, twisted                                                    |
| Outer sheath, material                        | PUR                                                                 |
| Material conductor insulation                 | PP                                                                  |
| Conductor material                            | Bare Cu litz wires                                                  |
| Cable weight                                  | 25 kg/km                                                            |
| 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)                        |
|                                               | -5 °C ... 80 °C (cable, flexible installation)                      |
| Special properties                            | Flexible cable conduit capable                                      |
|                                               | Silicone-free                                                       |
|                                               | 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          |
|                                               | hydrolysis and microbe resistant                                    |

#### Certificates / Approvals



Certification

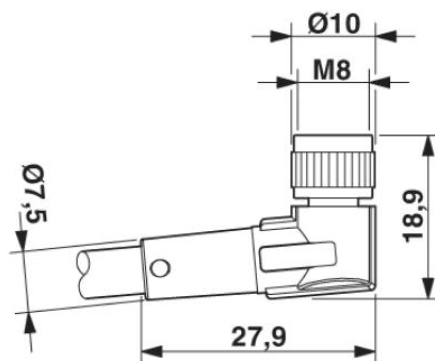
CUL Listed, UL Listed

## Diagrams/Drawings

### Dimensioned drawing

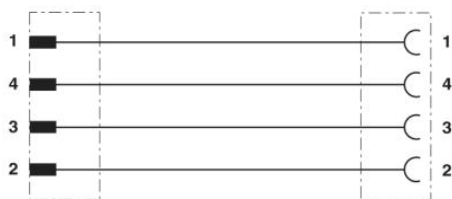


M12 x 1 male connector, angled



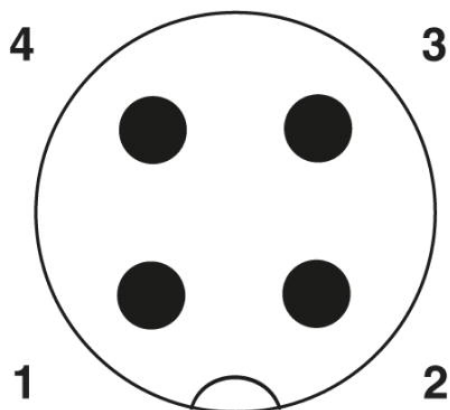
Socket M8 x 1, angled

### Circuit diagram

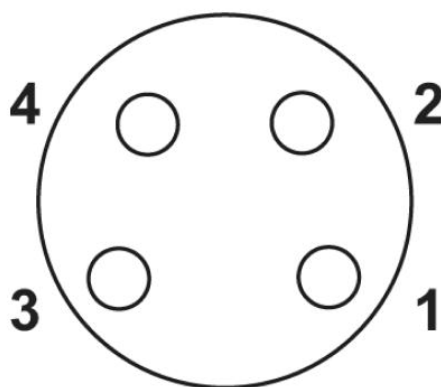


Contact assignment of M12 plugs / M8 sockets

### Schematic diagram



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



Pin assignment M8 socket, 4-pos., view female side

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