

## Sensor/Actuator cable - SAC-5P-M12MR/5,0-PUR - 1669819

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 cable, 5-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, A-coded, on free cable end, Cable length: 5 m

### Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 017918 134716 |
| Weight per Piece (excluding packing) | 179.7 g   |
| Custom tariff number                 | 85444290  |
| Country of origin                    | India   |
| Product key                          | BF1CDA  |

### Technical data

#### Dimensions

|  |       |
|--|-------|
| Length of cable                            | 5 m   |
| Stripping length of the free conductor end | 50 mm |

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |
|                                 | IP68                             |

#### General

|                       |      |
|-----------------------|------|
| Rated current at 40°C | 4 A  |
| Rated voltage         | 60 V |
| Number of positions   | 5    |

# Sensor/Actuator cable - SAC-5P-M12MR/5,0-PUR - 1669819

## Technical data

### General

|                              |                               |
|------------------------------|-------------------------------|
| Contact resistance           | ≤ 5 mΩ                        |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | Unwired                       |
| Overvoltage category         | II                            |
| Pollution degree             | 3                             |
| Insertion/withdrawal cycles  | ≥ 100                         |
| Torque                       | 0.4 Nm (M12 connector)        |

### Material

|   |   |
|---|---|
| Inflammability class according to UL 94 | HB  |
| 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   |

### Cable

|   |   |
|---|---|
| Cable type                                    | PUR halogen-free black                  |
| Cable type (abbreviation)                     | PUR                                     |
| Cable abbreviation                            | Li9Y11Y                                 |
| UL AWM style                                  | 20549 / 10493 (80°C/300 V)              |
| Conductor cross section                       | 5x 0.34 mm <sup>2</sup> (signal line)   |
| AWG signal line                               | 22                                      |
| Conductor structure signal line               | 42x 0.10 mm                             |
| Core diameter including insulation            | 1.27 mm ±0.02 mm (signal line)          |
| Thickness, insulation                         | ≥ 0.21 mm                               |
| Wire colors                                   | brown, white, blue, black, green-yellow |
| Overall twist                                 | 5 wires around filler to the core       |
| External sheath, color                        | black-gray RAL 7021                     |
| Outer sheath thickness                        | approx. 0.7 mm                          |
| External cable diameter D                     | 5 mm ±0.15 mm                           |
| Smallest bending radius, fixed installation   | 25 mm                                   |
| Smallest bending radius, movable installation | 50 mm                                   |
| Number of bending cycles                      | 4000000                                 |
| Bending radius                                | 50 mm                                   |
| Traversing path                               | 10 m                                    |
| Traversing rate                               | 3 m/s                                   |
| Acceleration                                  | 10 m/s <sup>2</sup>                     |

## Sensor/Actuator cable - SAC-5P-M12MR/5,0-PUR - 1669819

### Technical data

#### Cable

|                                 |   |
|---------------------------------|---|
| Cable weight                    | 35 kg/km  |
| Outer sheath, material          | PUR   |
| Material conductor insulation   | PP  |
| Conductor material              | Bare Cu litz wires  |
| Insulation resistance           | ≥ 16 GΩ*km (at 20 °C)   |
| Conductor resistance            | max. 58 Ω/km (at 20 °C)   |
| Nominal voltage, cable          | 300 V   |
| Test voltage, cable             | 3000 V  |
| Special properties              | Flexible cable conduit capable                                      |
|                                 | Silicone-free   |
|                                 | Free of substances which would hinder coating with paint or varnish |
|                                 | Flexible  |
| 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                                    |
|                                 | Resistant to salt water   |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                        |
|                                 | -25 °C ... 80 °C (cable, flexible installation)                     |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27279218 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

#### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 6.01 | 31251501 |
|-------------|----------|

# Sensor/Actuator cable - SAC-5P-M12MR/5,0-PUR - 1669819

## Classifications

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

### Approval details

|                    |       |
|--------------------|-------|
| UL Listed          |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 125 V |

|                    |       |
|--------------------|-------|
| cUL Listed         |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 125 V |

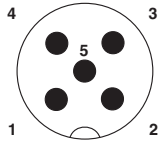
|     |
|-----|
| EAC |
|-----|

|              |
|--------------|
| cULus Listed |
|--------------|

## Drawings

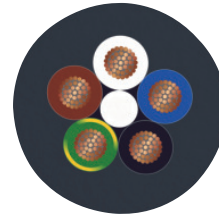
# Sensor/Actuator cable - SAC-5P-M12MR/5,0-PUR - 1669819

Schematic diagram



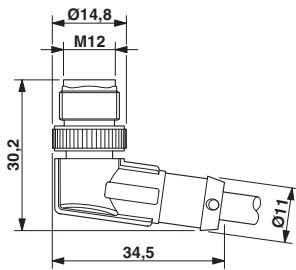
Pin assignment M12 male connector, 5-pos., A-coded, male side

Cable cross section



PUR halogen-free black [PUR]

Dimensional drawing



M12 x 1 male plug, angled

Circuit diagram



Contact assignment of the M12 plug