

## Sensor/Actuator cable - SAC-4P-M 8MR/10,0-PUR - 1694156

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Sensor/Actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M8, on free cable end, Cable length: 10 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 177249 |
| Weight per Piece (excluding packing) | 247.5 g   |
| Custom tariff number                 | 85444290  |
| Country of origin                    | Germany   |
| Product key                          | BF1BCA  |
| Note                                 | Made to Order (non-returnable)  |

### Technical data

#### Dimensions

|  |       |
|--|-------|
| Length of cable                            | 10 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         | 30 V |

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### Technical data

#### General

|                              |                              |
|------------------------------|------------------------------|
| Number of positions          | 4                            |
| Contact resistance           | ≤ 5 mΩ                       |
| Insulation resistance        | ≥ 100 MΩ                     |
| Coding                       | A - standard                 |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| Status display               | No                           |
| Protective circuit/component | Unwired                      |
| Overvoltage category         | II                           |
| Pollution degree             | 3                            |
| Insertion/withdrawal cycles  | ≥ 100                        |
| Torque                       | 0.2 Nm (M8 connectors)       |

#### 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                |

#### Cable

|   |                                       |
|---|---------------------------------------|
| Cable type                                    | PUR halogen-free black                |
| Cable type (abbreviation)                     | PUR                                   |
| Cable abbreviation                            | Li9Y11Y-HF                            |
| UL AWM style                                  | 20549                                 |
| Conductor cross section                       | 4x 0.25 mm <sup>2</sup> (signal line) |
| AWG signal line                               | 24                                    |
| Conductor structure signal line               | 32x 0.10 mm                           |
| Core diameter including insulation            | 1.17 mm ±0.02 mm (signal line)        |
| Thickness, insulation                         | ≥ 0.21 mm (Core insulation)           |
| Wire colors                                   | brown, white, blue, black             |
| Overall twist                                 | 4 wires, twisted                      |
| External sheath, color                        | black-gray RAL 7021                   |
| Outer sheath thickness                        | approx. 0.7 mm                        |
| External cable diameter D                     | 4.4 mm ±0.15 mm                       |
| 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                                  | 5 m/s <sup>2</sup>                    |

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### Technical data

#### Cable

|                                 |   |
|---------------------------------|---|
| Cable weight                    | 25 kg/km  |
| Outer sheath, material          | PUR   |
| Material conductor insulation   | PP  |
| Conductor material              | Bare Cu litz wires  |
| Insulation resistance           | ≥ 100 GΩ*km (at 20 °C)  |
| Conductor resistance            | max. 78 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 |
| 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                                    |
|                                 | 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 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |

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## Classifications

### UNSPSC

|              |          |
|--------------|----------|
| 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 |

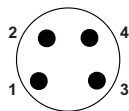
|     |
|-----|
| EAC |
|-----|

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

## Drawings

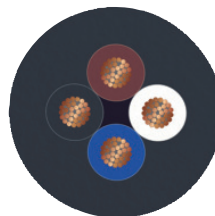
# Sensor/Actuator cable - SAC-4P-M 8MR/10,0-PUR - 1694156

Schematic diagram



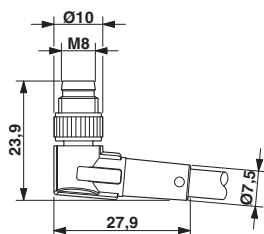
Pin assignment M8 plug, 4-pos., view male side

Cable cross section



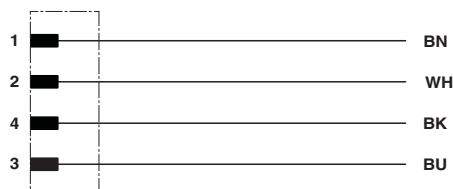
PUR halogen-free black [PUR]

Dimensional drawing



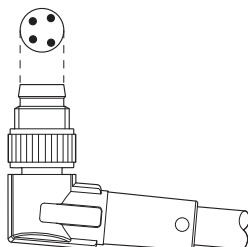
M8 x 1 male plug, angled version

Circuit diagram



Contact assignment of the M8 plug

Schematic diagram



Layout of connector pin assignments