

## Sensor/actuator cable - SAC-4P- 5,0-PUR/M12FS SH - 1682867

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Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket straight M12, coding: A, cable length: 5 m

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Reliable signal transmission – 360° shielding in environments with electromagnetic interference



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 017918 169176 |
| GTIN                                 | 4017918169176   |
| Weight per Piece (excluding packing) | 197.500 g   |
| Custom tariff number                 | 85444290  |
| Country of origin                    | Poland  |
| Sales Key                            | BF1CJA  |

### 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) |
|                                 | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |

#### General

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### Technical data

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 4 A                           |
| Rated voltage                | 48 V AC                       |
|                              | 60 V DC                       |
| Number of positions          | 4                             |
| 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                            |
| Degree of pollution          | 3                             |
| Insertion/withdrawal cycles  | ≥ 100                         |
| Torque                       | 0.4 Nm (M12 connector)        |

#### Material

|  |   |
|--|---|
| Flammability rating 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   |

#### Standards and Regulations

|  |                               |
|--|-------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-101 |
| Flammability rating according to UL 94 | HB                            |

#### Cable

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Cable type                         | PUR halogen-free black                |
| Cable type (abbreviation)          | PUR                                   |
| Cable abbreviation                 | Li9Y-V1-C-V1-11Y                      |
| UL AWM style                       | 20549 / 10493 (80°C/300 V)            |
| Conductor cross section            | 4x 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             |
| Overall twist                      | 4 wires, twisted                      |
| Shielding                          | Tinned copper braided shield          |
| Optical shield covering            | 80 %                                  |
| External sheath, color             | black-gray RAL 7021                   |

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#### Cable

|   |   |
|---|---|
| Outer sheath thickness                          | approx. 0.5 mm  |
| External cable diameter D                       | 4.95 mm $\pm$ 0.2 mm  |
| Minimum bending radius, fixed installation      | 5 x D   |
| Minimum bending radius, flexible installation   | 10 x D  |
| Number of bending cycles                        | 10000000  |
| Minimum bending radius, drag chain applications | 10 x D  |
| Traversing path                                 | 10 m  |
| Traversing rate                                 | 3 m/s   |
| Acceleration                                    | 10 m/s <sup>2</sup>   |
| Cable weight                                    | 36 kg/km  |
| Outer sheath, material                          | PUR   |
| Material conductor insulation                   | PP  |
| Conductor material                              | Bare Cu litz wires  |
| Insulation resistance                           | $\geq$ 100 G $\Omega$ *km (at 20 °C)  |
| Conductor resistance                            | max. 58 $\Omega$ /km (at 20 °C)   |
| Cable capacity                                  | $\leq$ 80 pF/m (Conductor-Conductor)<br>$\leq$ 135 pF/m (Wire/shield)   |
| Wave impedance                                  | $\geq$ 62 $\Omega$ (f = 10 MHz)   |
| Conductor inductance                            | approx. 0.75 mH/km (f = 1 kHz)  |
| Nominal voltage, cable                          | $\leq$ 300 V  |
| Test voltage, cable                             | $\geq$ 3000 V   |
| Special properties                              | Flexible cable conduit capable<br>Silicone-free<br>Free of substances which would hinder coating with paint or varnish<br>Low adhesion surface  |
| Other resistance                                | Highly resistant to acids, alkaline solutions and solvents<br>hydrolysis and microbe resistant<br>Resistant to salt water<br>partly UV-resistant in accordance with DIN EN ISO 4892-2-A<br>abrasion-resistant |
| Flame resistance                                | in accordance with UL 758/1581 FT2<br>DIN EN 60332-2-2 (20 s)   |
| 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   |
| Ambient temperature (operation)                 | -40 °C ... 80 °C (cable, fixed installation)<br>-25 °C ... 80 °C (cable, flexible installation)   |

#### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|------------|---|

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## Sensor/actuator cable - SAC-4P- 5,0-PUR/M12FS SH - 1682867

### Technical data

#### Environmental Product Compliance

|  |  |
|--|--|
|  | No hazardous substances above threshold values |
|--|--|

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