# SAC-5P-10,0-PUR/M12FS SH - Sensor/actuator cable



1500758

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded (Tinned copper braided shield), free cable end, on Socket straight M12, coding: A, cable length: 10 m

# Your advantages

- · Easy and safe: 100 % electrically tested plug-in components
- · Reliable signal transmission 360° shielding in environments with electromagnetic interference

# Commercial data

| Item number                          | 1500758             |
|--------------------------------------|---------------------|
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF03                |
| Product key                          | BF1CKA              |
| Catalog page                         | Page 204 (C-2-2019) |
| GTIN                                 | 4017918610791       |
| Weight per piece (including packing) | 463.5 g             |
| Weight per piece (excluding packing) | 433.2 g             |
| Customs tariff number                | 85444290            |
| Country of origin                    | CN                  |



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# Technical data

# Product properties

| Product type               | Sensor/actuator cable |  |
|----------------------------|-----------------------|--|
| Number of positions        | 5                     |  |
| Application                | Standard              |  |
| No. of cable outlets       | 1                     |  |
| Shielded                   | yes                   |  |
| Coding                     | A                     |  |
| Insulation characteristics |                       |  |
| Overvoltage category       | II                    |  |
| Degree of pollution        | 3                     |  |

# Material specifications

| Flammability rating according to UL 94 | HB  |
|--|---|
| Seal material                          | NBR   |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuSn  |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material for screw connection          | Zinc die-cast, nickel-plated                |

# **Electrical properties**

| Contact resistance             | ≤ 5 mΩ   |
|--------------------------------|----------|
| Insulation resistance          | ≥ 100 MΩ |
| Nominal voltage U <sub>N</sub> | 48 V AC  |
|                                | 60 V DC  |
| Nominal current I <sub>N</sub> | 4 A      |
| Protective circuit             | unwired  |

# Mechanical properties

|    | Mechanical data             |       |  |
|----|-----------------------------|-------|--|
|    | Insertion/withdrawal cycles | ≥ 100 |  |
| Si | Signaling                   |       |  |
|    | Status display              | No    |  |
|    | Status display present      | No    |  |
| Сс | onnection data              |       |  |
|    | Conductor connection        |       |  |

| Tightening torque 0.4 Nm (M12 connector) |
|--|
|--|



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# Connector

|                     | Connection 1        |
|---------------------|---------------------|
| free cable end      | Туре                |
|                     | Connection 2        |
| Socket straight M12 | Туре                |
| 5                   | Number of positions |
| A                   | Coding type         |
| 5                   | Number of positions |

# Cable/line

| Cable length | 10 m |
|--------------|------|
|              |      |

# PUR halogen-free black [PUR]

Dimensional drawing



| Cable weight                    | 43 kg/km                          |
|---------------------------------|-----------------------------------|
| UL AWM Style                    | 20549 / 10493 (80°C/300 V)        |
| Number of positions             | 5                                 |
| Shielded                        | yes                               |
| Cable type                      | PUR halogen-free black [PUR]      |
| Conductor structure signal line | 42x 0.10 mm                       |
| AWG signal line                 | 22                                |
| Conductor cross section         | 5x 0.34 mm² (Signal line)         |
| Wire diameter incl. insulation  | 1.27 mm ±0.02 mm (Signal line)    |
| External cable diameter         | 5.25 mm ±0.2 mm                   |
| Outer sheath, material          | PUR                               |
| External sheath, color          | black-gray RAL 7021               |
| Conductor material              | Bare Cu litz wires                |
| Material wire insulation        | PP                                |
| Single wire, color              | brown, white, blue, black, gray   |
| Thickness, insulation           | ≥ 0.21 mm                         |
| Thickness, outer sheath         | approx. 0.50 mm                   |
| Overall twist                   | 5 wires around filler to the core |
| Optical shield covering         | 80 %                              |
| Max. conductor resistance       | max. 57 Ω/km (at 20 °C)           |
| Insulation resistance           | 70 GΩ*km (at 20 °C)               |
| Nominal voltage, cable          | 300 V (at 20 °C)                  |



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| Test voltage Core/Core                        | 3000 V (at 20 °C)   |
|---|---|
| Smallest bending radius, fixed installation   | 26 mm   |
| Smallest bending radius, movable installation | 52 mm (up to +60 °C)  |
| Max. bending cycles                           | 1000000   |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                            |
|   | in accordance with DIN EN 50267-2-1                                 |
| Flame resistance                              | in accordance with UL 758/1581 FT2                                  |
|   | DIN EN 60332-2-2 (20 s)   |
| 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)        |
|   | abrasion-resistant  |
| Special properties                            | Flexible cable conduit capable                                      |
|   | Silicone-free   |
|   | Free of substances which would hinder coating with paint or varnish |
|   | Low adhesion surface  |
| Ambient temperature (operation)               | -40 °C 80 °C (cable, fixed installation)                            |
|   | -25 °C 80 °C (Cable, flexible installation)                         |

#### Environmental and real-life conditions

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

# Standards and regulations

| Standard designation     | M12 connector   |
|--------------------------|-----------------|
| Standards/specifications | IEC 61076-2-101 |

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