

## Sensor/actuator cable - SAC-8P-10,0-PUR/M12FS VA - 1412465

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, A-coded, cable length: 10 m

As illustrated but with VA knurl

RoHS

### Key Commercial Data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 1 pc                                                                                                    |
| Minimum order quantity | 50 pc                                                                                                   |
| GTIN                   | <br>4 046356 963305 |
| GTIN                   | 4046356963305                                                                                           |

### 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) |
|---------------------------------|----------------------------------|

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 2 A                           |
| Rated voltage                | 30 V AC                       |
|                              | 30 V DC                       |
| Number of positions          | 8                             |
| 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                            |

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## Technical data

### General

|                             |       |
|-----------------------------|-------|
| Degree of pollution         | 3     |
| Insertion/withdrawal cycles | ≥ 100 |

### Material

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | HB                                          |
| Contact material                       | CuZn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Material, knurls                       | Stainless steel                             |
| Sealing material                       | NBR                                         |

### Standards and Regulations

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

### 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                       | 8x 0.25 mm <sup>2</sup>                            |
| AWG signal line                               | 24                                                 |
| Conductor structure signal line               | 32x 0.10 mm                                        |
| Core diameter including insulation            | 1.17 mm ±0.02 mm                                   |
| Thickness, insulation                         | ≥ 0.21 mm                                          |
| Wire colors                                   | white, brown, green, yellow, gray, pink, blue, red |
| Overall twist                                 | 8 wires around filler to the core                  |
| External sheath, color                        | black-gray RAL 7021                                |
| Outer sheath thickness                        | approx. 0.8 mm                                     |
| External cable diameter D                     | 5.9 mm ±0.15 mm                                    |
| Minimum bending radius, fixed installation    | 8 x D                                              |
| Minimum bending radius, flexible installation | 10 x D                                             |
| Number of bending cycles                      | 4000000                                            |
| Bending radius                                | 59 mm                                              |
| Traversing path                               | 10 m                                               |
| Traversing rate                               | 3 m/s                                              |
| Acceleration                                  | 10 m/s <sup>2</sup>                                |
| Cable weight                                  | 46 kg/km                                           |
| Outer sheath, material                        | PUR                                                |
| Material, filler                              | PE                                                 |

## Sensor/actuator cable - SAC-8P-10,0-PUR/M12FS VA - 1412465

### Technical data

#### Cable

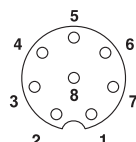
|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| Material conductor insulation   | PP                                                                  |
| Conductor material              | Bare Cu litz wires                                                  |
| Conductor resistance            | $\leq 78 \Omega/\text{km}$                                          |
| Cable capacity                  | $\leq 70 \text{ pF/m}$                                              |
| Wave impedance                  | $100 \Omega \pm 15 \%$ (with 1 MHz)                                 |
| Conductor inductance            | approx. 0.6 mH/km (with 1 MHz)                                      |
| Nominal voltage, cable          | $\leq 300 \text{ V}$                                                |
| Test voltage, cable             | $\geq 3000 \text{ V}$                                               |
| 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                                    |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
|                                 | Low adhesion                                                        |
|                                 | abrasion-resistant                                                  |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                        |
|                                 | -25 °C ... 80 °C (cable, flexible installation)                     |

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

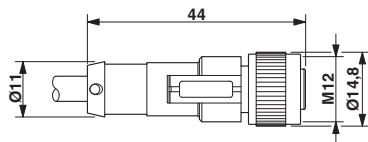
Cable cross section



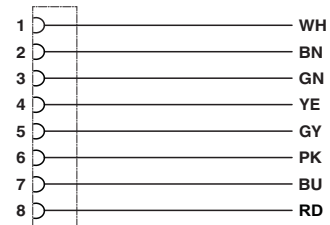
PUR halogen-free black [PUR]

## Sensor/actuator cable - SAC-8P-10,0-PUR/M12FS VA - 1412465

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 socket

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