

## Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FR BE - 1402083

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Socket angled M12, A-coded, Cable length: 5 m

### Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 50            |
| GTIN             | 4046356581356 |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 5 m |
|-----------------|-----|

#### Ambient conditions

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

#### General

|                             |              |
|-----------------------------|--------------|
| Rated current at 40°C       | 4 A          |
| Rated voltage               | 250 V        |
| Number of positions         | 3            |
| Contact resistance          | ≤ 5 mΩ       |
| Insulation resistance       | ≥ 100 MΩ     |
| Coding                      | A - standard |
| Status display              | No           |
| Surge voltage category      | II           |
| Pollution degree            | 3            |
| Insertion/withdrawal cycles | ≥ 100        |

#### 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 |

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## Technical data

### Material

|                  |                              |
|------------------|------------------------------|
| 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                                                               |
| Conductor cross section                       | 3x 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 (Core insulation)                                         |
| Thickness, insulation                         | approx. 0.8 mm (Outer cable sheath)                                 |
| Wire colors                                   | brown, blue, black                                                  |
| Overall twist                                 | 3 wires, twisted                                                    |
| External sheath, color                        | Black-gray RAL 7021                                                 |
| 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                                  | 10 m/s <sup>2</sup>                                                 |
| Cable weight                                  | 26 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. 58 Ω/km (at 20 °C)                                             |
| Nominal voltage, cable                        | ≤ 300 V                                                             |
| Test voltage, cable                           | ≥ 3000 V                                                            |
| Special properties                            | Flexible cable conduit capable                                      |
| Special properties                            | Silicone-free                                                       |
| Special properties                            | 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          |
| Other resistance                              | hydrolysis and microbe resistant                                    |

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#### Cable

|                                        |                                                            |
|----------------------------------------|------------------------------------------------------------|
| <b>Other resistance</b>                | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| <b>Ambient temperature (operation)</b> | -40 °C ... 80 °C (cable, fixed installation)               |
| <b>Ambient temperature (operation)</b> | -25 °C ... 80 °C (cable, flexible installation)            |

### classifications

#### eCl@ss

|                   |          |
|-------------------|----------|
| <b>eCl@ss 4.0</b> | 27060306 |
| <b>eCl@ss 4.1</b> | 27060306 |
| <b>eCl@ss 5.0</b> | 27061801 |
| <b>eCl@ss 5.1</b> | 27061801 |
| <b>eCl@ss 6.0</b> | 27279218 |
| <b>eCl@ss 7.0</b> | 27279218 |
| <b>eCl@ss 8.0</b> | 27279218 |

#### ETIM

|                 |          |
|-----------------|----------|
| <b>ETIM 3.0</b> | EC001855 |
| <b>ETIM 4.0</b> | EC001855 |
| <b>ETIM 5.0</b> | EC001855 |

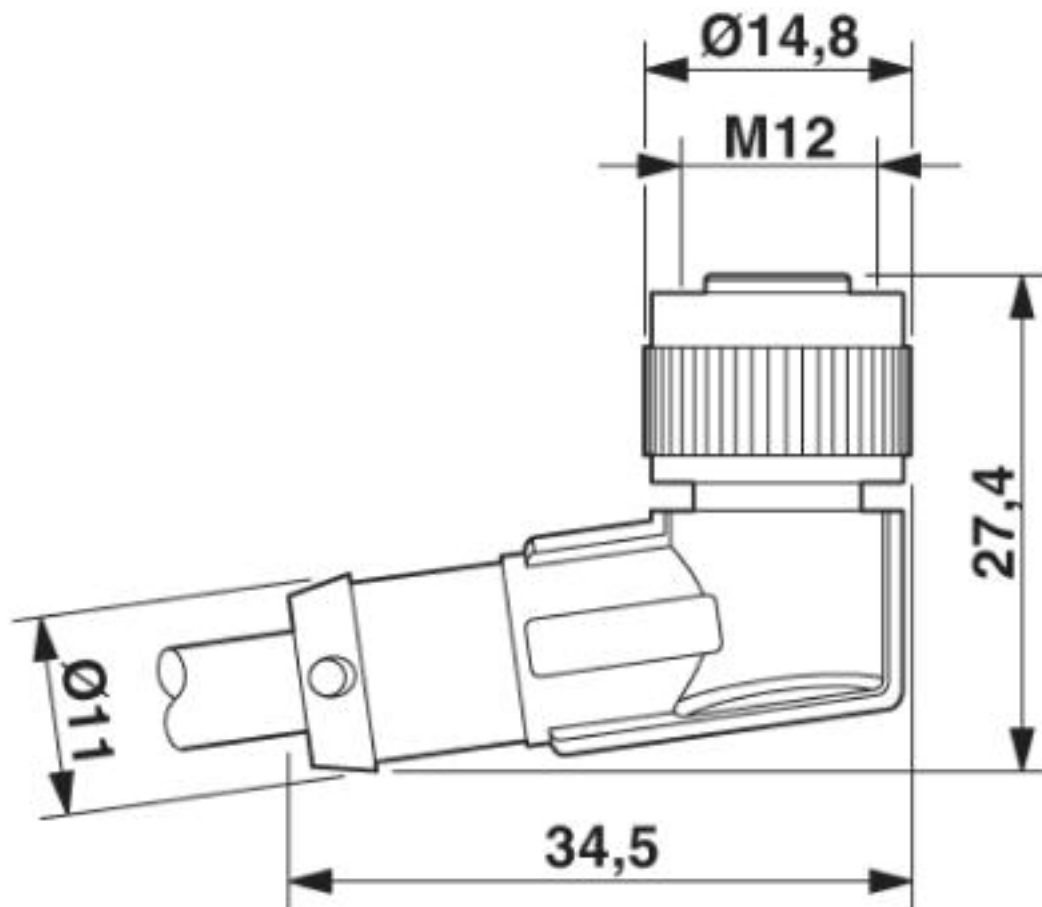
#### UNSPSC

|                      |          |
|----------------------|----------|
| <b>UNSPSC 6.01</b>   | 31251501 |
| <b>UNSPSC 7.0901</b> | 31251501 |
| <b>UNSPSC 11</b>     | 31251501 |
| <b>UNSPSC 12.01</b>  | 31251501 |
| <b>UNSPSC 13.2</b>   | 31251501 |

### Drawings

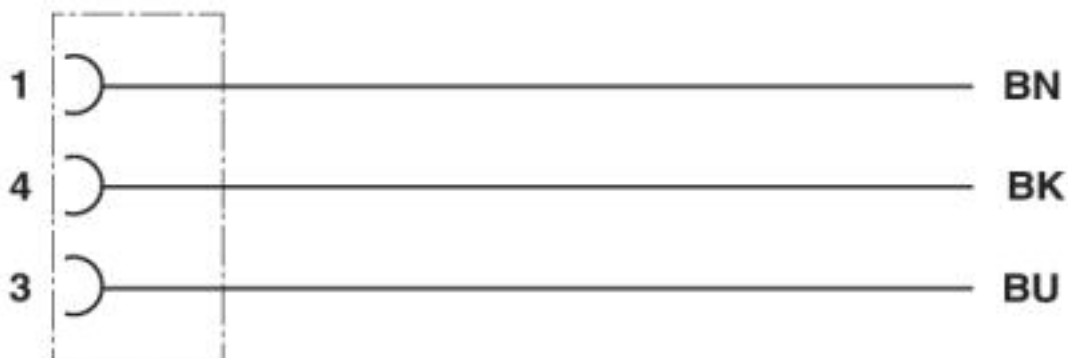
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Dimensioned drawing



M12 x 1 socket, angled

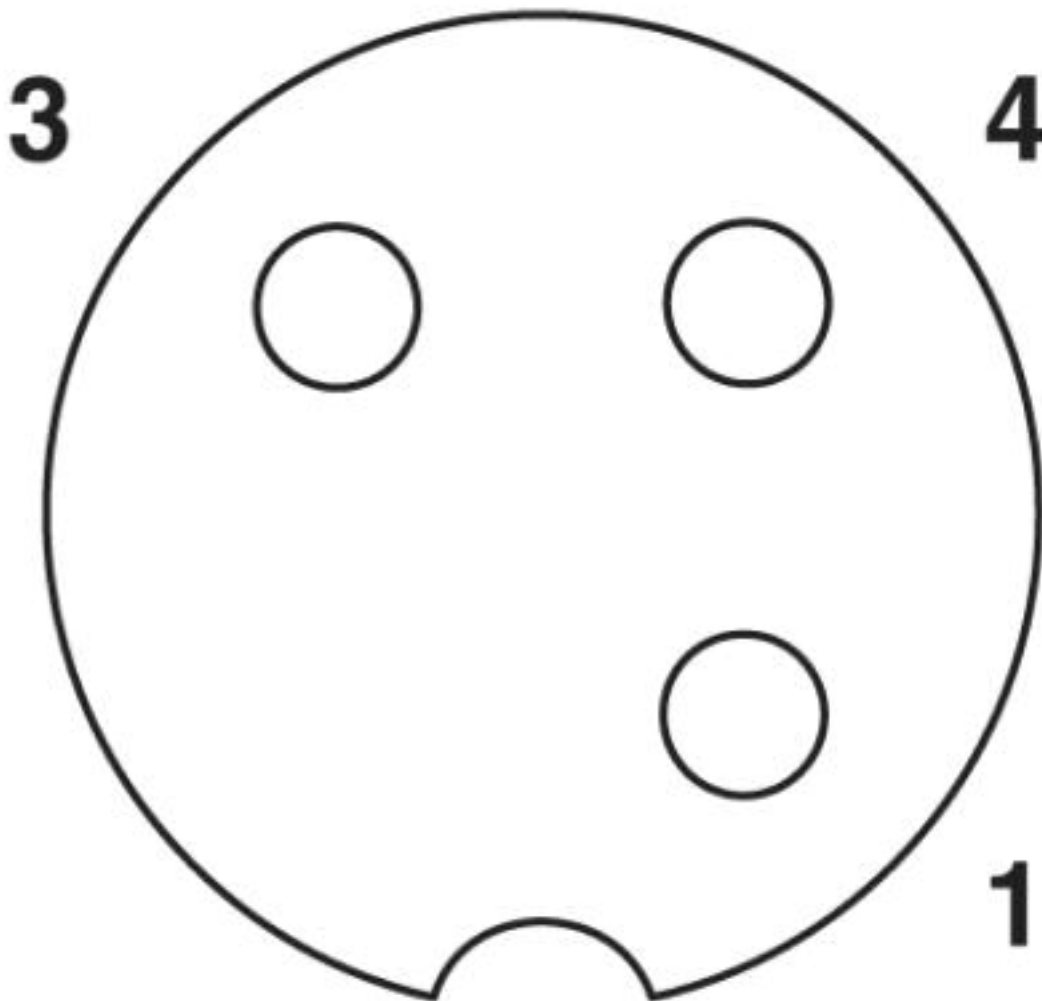
Circuit diagram



Contact assignment of the M12 socket

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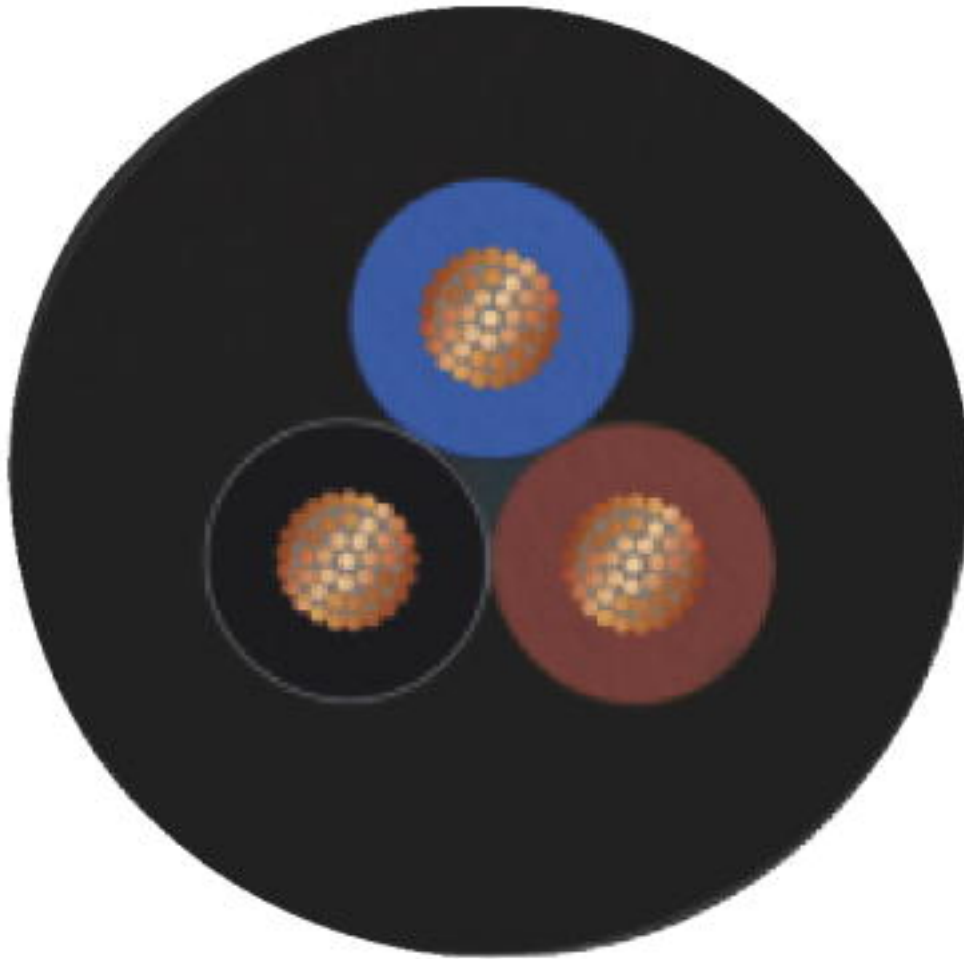
Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

## Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FR BE - 1402083

Cable cross section



PUR halogen-free black [PUR]

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