

## Sensor/actuator cable - SAC-4P-10,0-PUR/M12FS VA - 1515183

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Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, coding: A, cable length: 10 m

RoHS

### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| Minimum order quantity               | 5 pc                                                                                                    |
| GTIN                                 | <br>4 017918 925031 |
| GTIN                                 | 4017918925031                                                                                           |
| Weight per Piece (excluding packing) | 324.000 g                                                                                               |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### Technical data

#### Dimensions

|                                            |       |
|--------------------------------------------|-------|
| Length of cable                            | 10 m  |
| Stripping length of the free conductor end | 50 mm |

#### Ambient conditions

|                      |      |
|----------------------|------|
| Degree of protection | IP65 |
|                      | IP67 |
|                      | IP68 |

#### General

|                       |          |
|-----------------------|----------|
| Rated current at 40°C | 4 A      |
| Rated voltage         | 250 V AC |

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## Technical data

### General

|                             |                            |
|-----------------------------|----------------------------|
|                             | 250 V DC                   |
| Number of positions         | 4                          |
| Insulation resistance       | $\geq 100 \text{ M}\Omega$ |
| Coding                      | A - standard               |
| Status display              | No                         |
| Overvoltage category        | II                         |
| Degree of pollution         | 3                          |
| Insertion/withdrawal cycles | $\geq 100$                 |
| Torque                      | 0.4 Nm                     |

### 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                       | Stainless steel                             |
| Sealing material                       | NBR                                         |

### Standards and Regulations

|                                        |    |
|----------------------------------------|----|
| Flammability rating according to UL 94 | HB |
|----------------------------------------|----|

### Cable

|                                               |                            |
|-----------------------------------------------|----------------------------|
| Cable type                                    | PUR halogen-free black     |
| Cable type (abbreviation)                     | PUR                        |
| Cable abbreviation                            | Li9Y11Y-HF                 |
| UL AWM style                                  | 20549 / 10493 (80°C/300 V) |
| Conductor cross section                       | 4x 0.34 mm <sup>2</sup>    |
| AWG signal line                               | 22                         |
| Conductor structure signal line               | 42x 0.10 mm                |
| Core diameter including insulation            | 1.27 mm $\pm$ 0.02 mm      |
| Thickness, insulation                         | $\geq 0.21 \text{ mm}$     |
| Wire colors                                   | brown, white, blue, black  |
| Overall twist                                 | 4 wires, twisted           |
| External sheath, color                        | black-gray RAL 7021        |
| Outer sheath thickness                        | approx. 0.5 mm             |
| External cable diameter D                     | 4.2 mm $\pm$ 0.15 mm       |
| Minimum bending radius, fixed installation    | 5 x D                      |
| Minimum bending radius, flexible installation | 10 x D                     |

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### Technical data

#### Cable

|                                                 |                                                                     |
|-------------------------------------------------|---------------------------------------------------------------------|
| 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                                    | 30 kg/km                                                            |
| Outer sheath, material                          | PUR                                                                 |
| Material conductor insulation                   | PP                                                                  |
| Conductor material                              | Bare Cu litz wires                                                  |
| Insulation resistance                           | ≥ 1 GΩ*km                                                           |
| Conductor resistance                            | ≤ 58 Ω/km                                                           |
| 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 |
|                                                 | flexible                                                            |
| Flame resistance                                | in accordance with UL 758/1581 FT2                                  |
|                                                 | DIN EN 60332-2-2 (20 s)                                             |
| Halogen-free                                    | in accordance with DIN VDE 0472 part 815                            |
|                                                 | in accordance with DIN EN 50267-2-1                                 |
| 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)                     |

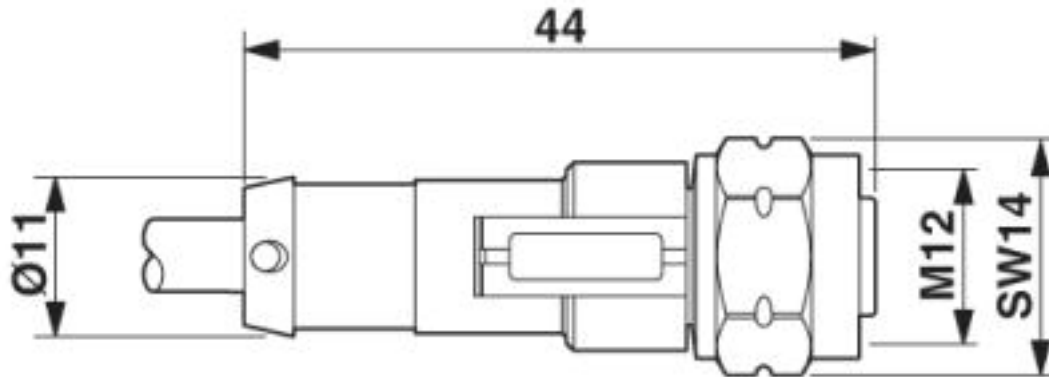
#### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

### Drawings

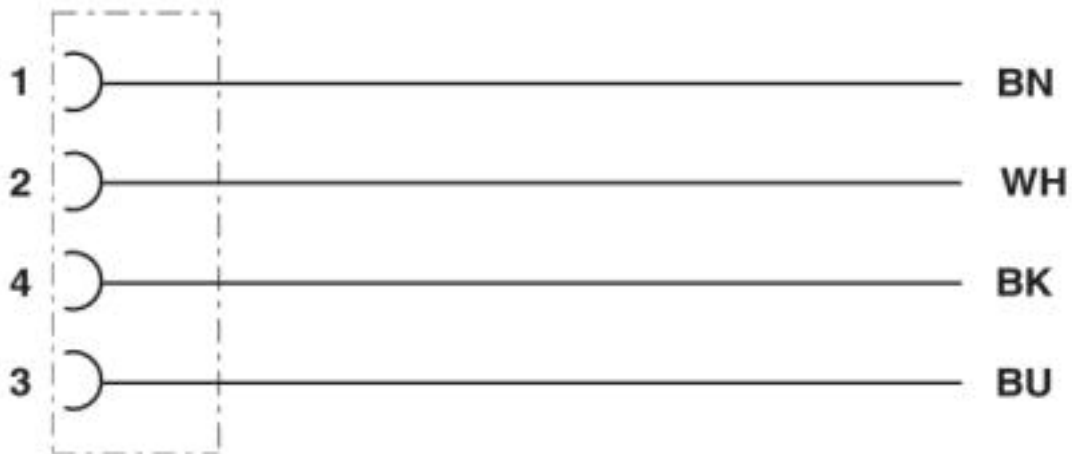
## Sensor/actuator cable - SAC-4P-10,0-PUR/M12FS VA - 1515183

Dimensional drawing



M12 x 1 socket, straight

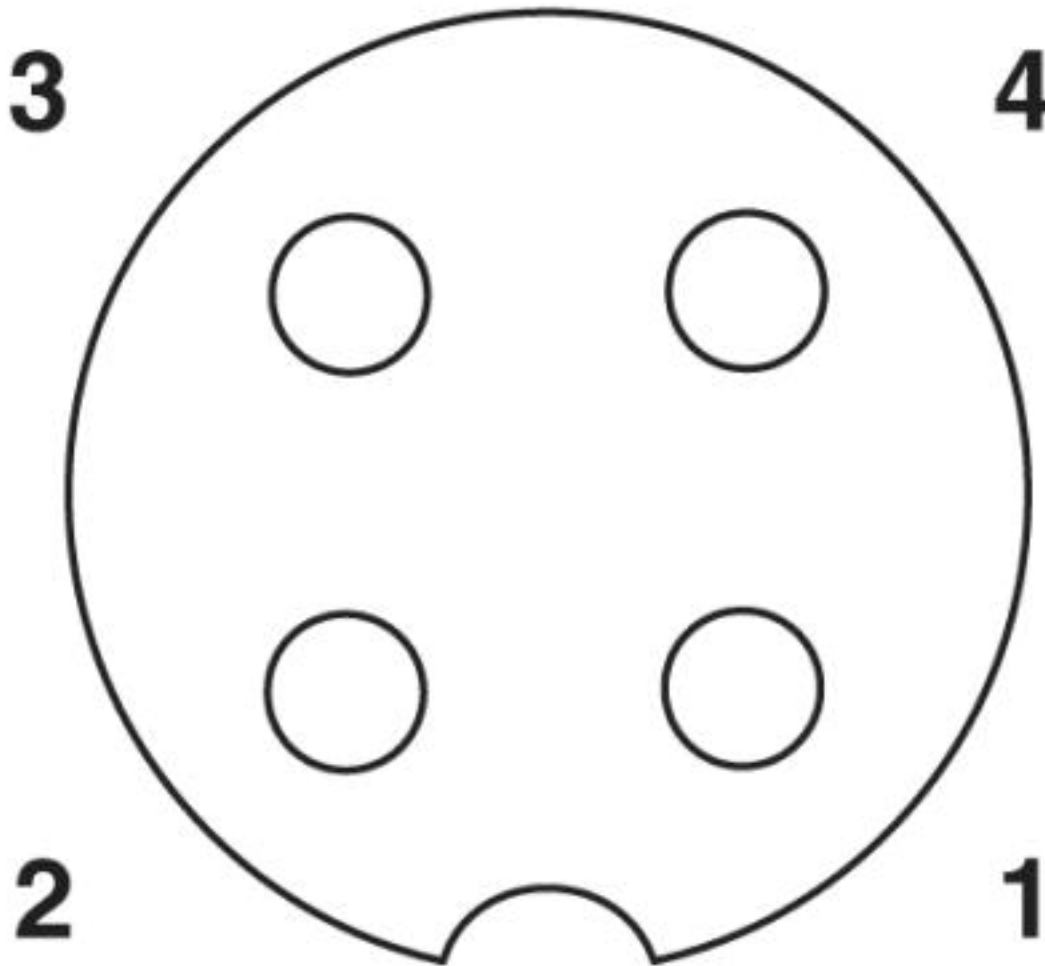
Circuit diagram



Contact assignment of the M12 socket

## Sensor/actuator cable - SAC-4P-10,0-PUR/M12FS VA - 1515183

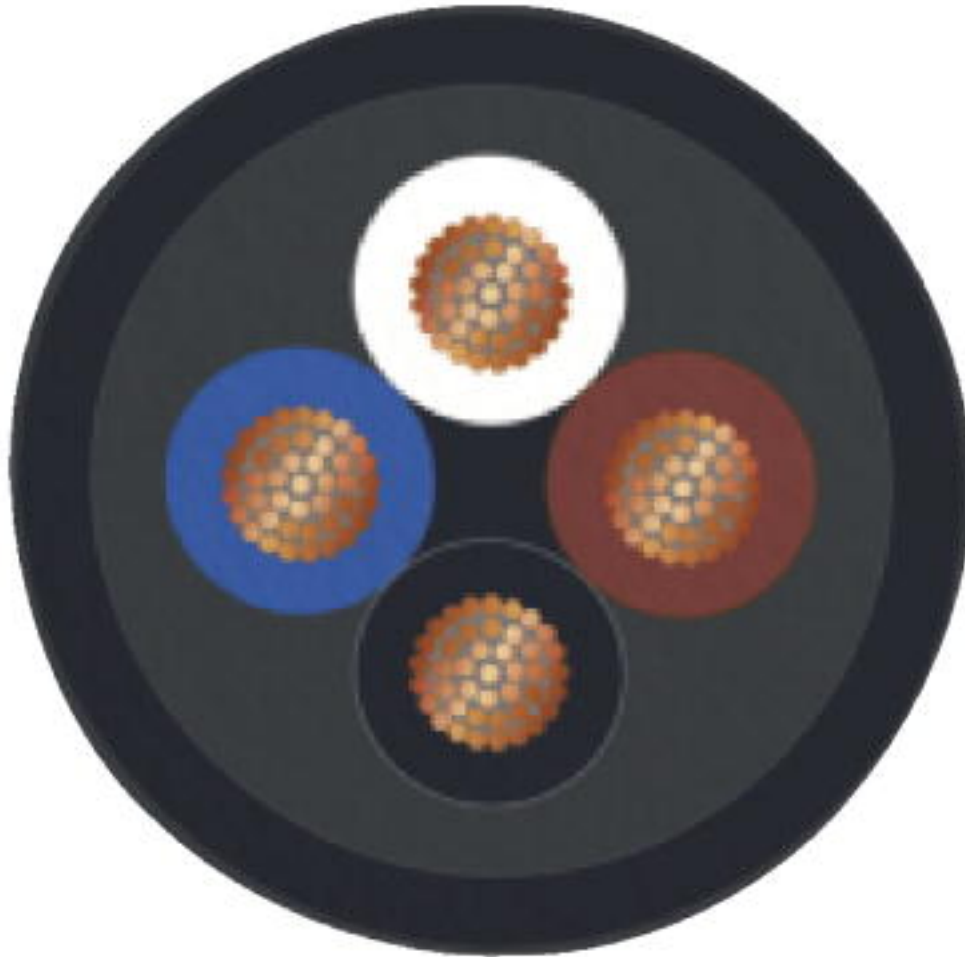
Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

## Sensor/actuator cable - SAC-4P-10,0-PUR/M12FS VA - 1515183

Cable cross section



PUR halogen-free black [PUR]

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060300 |
| eCl@ss 4.1 | 27060300 |
| eCl@ss 5.0 | 27061800 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

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### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 9.0 | 27060311 |
|------------|----------|

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

### Approvals

#### Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

#### Approval details

|                    |                                                                                     |                                                                                                                                                         |               |
|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed          |  | <a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
| Nominal voltage UN | 300 V                                                                               |                                                                                                                                                         |               |
| Nominal current IN | 4 A                                                                                 |                                                                                                                                                         |               |

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### Approvals

|                    |                                                                                   |                                                                                                                                                       |               |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Listed         |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
| Nominal voltage UN |                                                                                   | 300 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                   | 4 A                                                                                                                                                   |               |

|     |                                                                                   |                          |
|-----|-----------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.AI30.B.01102 |
|-----|-----------------------------------------------------------------------------------|--------------------------|

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