

## Sensor/Actuator cable - SAC-4P- 1,0-PUR/M12FS - 1400420

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Sensor/Actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, A-coded, Cable length: 1 m



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Minimum order quantity               | 25 pc    |
| Weight per Piece (excluding packing) | 60.0 g   |
| Custom tariff number                 | 85444290 |
| Country of origin                    | Germany  |

### Technical data

#### Dimensions

|  |       |
|--|-------|
| Length of cable                            | 1 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        |
| Number of positions   | 4            |
| Insulation resistance | ≥ 100 MΩ     |
| Coding                | A - standard |
| Status display        | No           |
| 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                       | 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

|  |    |
|--|----|
| 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 ±0.02 mm           |
| Thickness, insulation                           | ≥ 0.21 mm                  |
| Wire colors                                     | brown, white, blue, black  |
| Overall twist                                   | 4 wires, twisted           |
| External sheath, color                          | black-gray RAL 7021        |
| Outer sheath thickness                          | approx. 0.8 mm             |
| External cable diameter D                       | 4.7 mm ±0.15 mm            |
| Smallest bending radius, fixed installation     | 23.5 mm                    |
| Smallest bending radius, movable installation   | 47 mm                      |
| Minimum bending radius, fixed installation      | 5 x D                      |
| Minimum bending radius, flexible installation   | 10 x D                     |
| Number of bending cycles                        | 4000000                    |
| Bending radius                                  | 47 mm                      |
| Minimum bending radius, drag chain applications | 10 x D                     |
| Traversing path                                 | 10 m                       |
| Traversing rate                                 | 3 m/s                      |

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### Technical data

#### Cable

|                                 |   |
|---------------------------------|---|
| 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                | according to UL 758/1581 (horizontal)                               |
|                                 | in accordance with UL 758/1581 FT2                                  |
| 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)                     |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27279218 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

#### Approvals submitted

### Approval details

|                    |       |
|--------------------|-------|
| UL Listed          |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 125 V |

|                    |     |
|--------------------|-----|
| cUL Listed         |     |
| Nominal current IN | 4 A |

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## Approvals

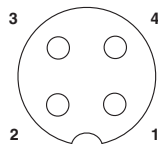
|                    |       |
|--------------------|-------|
| Nominal voltage UN | 125 V |
|--------------------|-------|

|     |
|-----|
| EAC |
|-----|

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

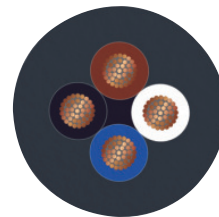
## Drawings

Schematic diagram



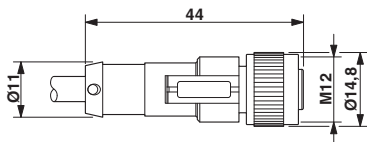
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



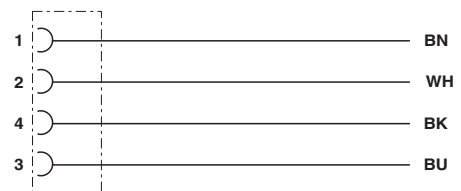
PUR halogen-free black [PUR]

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket