

## Sensor/Actuator cable - SAC-5P-M12MS/10,0-PUR/M12FS - 1403889

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Sensor/Actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 10 m



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 STK    |
| Weight per Piece (excluding packing) | 360.0 g  |
| Custom tariff number                 | 85444290 |
| Country of origin                    | Germany  |

### Technical data

#### Dimensions

|                 |      |
|-----------------|------|
| Length of cable | 10 m |
|-----------------|------|

#### Ambient conditions

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

#### General

|                       |              |
|-----------------------|--------------|
| Rated current at 40°C | 4 A          |
| Rated voltage         | 60 V         |
| Number of positions   | 5            |
| 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                                 |
| UL AWM style                                  | 20549 / 10493 (80°C/300 V)              |
| Conductor cross section                       | 5x 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                               |
| Wire colors                                   | brown, white, blue, black, green-yellow |
| Overall twist                                 | 5 wires around filler to the core       |
| External sheath, color                        | black-gray RAL 7021                     |
| Outer sheath thickness                        | approx. 0.7 mm                          |
| External cable diameter D                     | 5 mm ±0.15 mm                           |
| Smallest bending radius, fixed installation   | 25 mm                                   |
| Smallest bending radius, movable installation | 50 mm                                   |
| Number of bending cycles                      | 4000000                                 |
| Bending radius                                | 50 mm                                   |
| Traversing path                               | 10 m                                    |
| Traversing rate                               | 3 m/s                                   |
| Acceleration                                  | 10 m/s <sup>2</sup>                     |
| Cable weight                                  | 35 kg/km                                |
| Outer sheath, material                        | PUR                                     |

# Sensor/Actuator cable - SAC-5P-M12MS/10,0-PUR/M12FS - 1403889

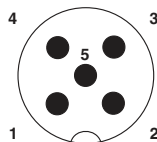
## Technical data

### Cable

|                                 |   |
|---------------------------------|---|
| Material conductor insulation   | PP  |
| Conductor material              | Bare Cu litz wires  |
| Insulation resistance           | $\geq 16 \text{ G}\Omega \cdot \text{km}$ (at 20 °C)                |
| Conductor resistance            | max. 58 $\Omega/\text{km}$ (at 20 °C)                               |
| 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 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                                    |
|                                 | Resistant to salt water   |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                        |
|                                 | -25 °C ... 80 °C (cable, flexible installation)                     |

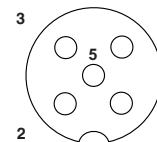
## Drawings

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



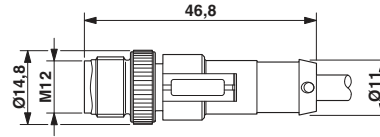
Pin assignment M12 socket, 5-pos., A-coded, socket side view

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Cable cross section



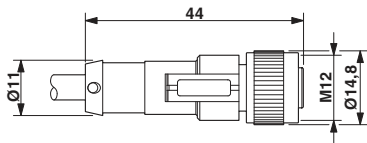
Dimensional drawing



PUR halogen-free black [PUR]

M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

## 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 |
| eCl@ss 9.0 | 27060311 |

ETIM

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

UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 6.01 | 31251501 |
|-------------|----------|

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### Classifications

#### UNSPSC

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