

## Sensor/Actuator cable - SAC-4P-M12MS/10,0-186/M12FS - 1509571

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Sensor/Actuator cable, 4-position, PUR, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 10 m

### Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ High-performance: connectors and cables with a large conductor cross section for power supply

RoHS

### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 STK   |
| GTIN                                 | <br>4 017918 899219 |
| GTIN                                 | 4017918899219   |
| Weight per Piece (excluding packing) | 584.100 g   |
| Custom tariff number                 | 85444290  |
| Country of origin                    | Poland  |

### Technical data

#### Dimensions

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

#### Ambient conditions

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

#### General

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## Technical data

### 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           |
| Protective circuit/component | Unwired      |
| Overvoltage category         | II           |
| 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 POWER 0.75 mm <sup>2</sup> black |
| Cable type (abbreviation)                     | 186                                  |
| Cable abbreviation                            | LiY11Y                               |
| UL AWM style                                  | 20549 / 1061 (80°C/300 V)            |
| Conductor cross section                       | 4x 0.75 mm <sup>2</sup> (power line) |
| AWG signal line                               | 18                                   |
| Conductor structure signal line               | 42x 0.15 mm                          |
| Core diameter including insulation            | 1.75 mm ±0.05 mm                     |
| Thickness, insulation                         | ≥ 0.23 mm (Core insulation)          |
|   | ≥ 0.76 mm (Outer cable sheath)       |
| Wire colors                                   | brown, white, blue, black            |
| Overall twist                                 | 4 wires, twisted                     |
| External sheath, color                        | black-gray RAL 7021                  |
| External cable diameter D                     | 5.9 mm ±0.15 mm                      |
| Smallest bending radius, movable installation | 59 mm                                |

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## Technical data

### Cable

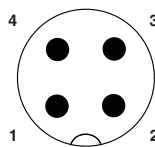
|   |  |
|---|--|
| Minimum bending radius, fixed installation    | 5 x D  |
| Minimum bending radius, flexible installation | 10 x D   |
| Number of bending cycles                      | 2000000  |
| Bending radius                                | 59 mm  |
| Traversing path                               | 5 m  |
| Traversing rate                               | 3 m/s  |
| Acceleration                                  | 5 m/s <sup>2</sup>                             |
| Cable weight                                  | 57 kg/km                                       |
| Outer sheath, material                        | PUR  |
| Material conductor insulation                 | PVC  |
| Conductor material                            | Bare Cu litz wires                             |
| Insulation resistance                         | ≥ 1 MΩ*km (at 20 °C)                           |
| Conductor resistance                          | max. 26 Ω/km (at 20 °C)                        |
| Nominal voltage, cable                        | ≤ 300 V  |
| Test voltage, cable                           | ≥ 3000 V                                       |
| Flame resistance                              | according to UL 758/1581 (horizontal)          |
|   | in accordance with UL 758/1581 FT2             |
| Resistance to oil                             | According to DIN EN 60811-2-1, 168 h at 100°C  |
| Other resistance                              | hydrolysis and microbe resistant               |
|   | Low adhesion                                   |
|   | abrasion-resistant                             |
|   | Resistant to salt water                        |
| Ambient temperature (operation)               | -25 °C ... 80 °C (cable, fixed installation)   |
|   | -5 °C ... 80 °C (cable, flexible installation) |

### Environmental Product Compliance

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

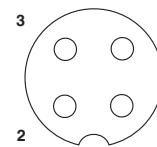
## Drawings

Schematic diagram



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

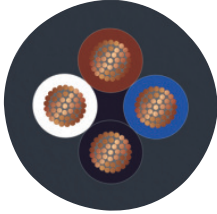
Schematic diagram



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

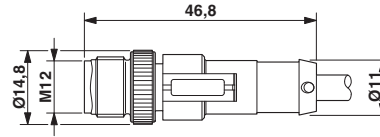
# Sensor/Actuator cable - SAC-4P-M12MS/10,0-186/M12FS - 1509571

Cable cross section



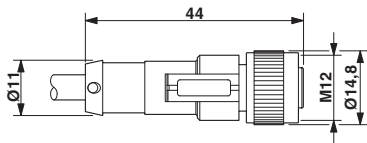
PUR POWER 0.75 mm<sup>2</sup> black [186]

Dimensional drawing



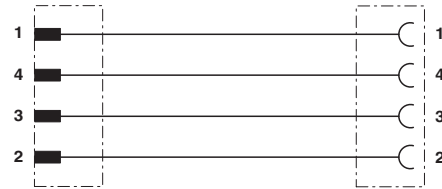
M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

### Approval details

|   |       |
|---|-------|
| UL 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 current I <sub>N</sub>  | 4 A   |
| Nominal voltage U <sub>N</sub>  | 300 V |

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cULus Listed 