

## Sensor/Actuator cable - SAC-5P-M12MS/10,0-170/M12FS SH - 1545315

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

RoHS

### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 STK                                                                                                   |
| GTIN                                 | <br>4 046356 122320 |
| GTIN                                 | 4046356122320                                                                                           |
| Weight per Piece (excluding packing) | 520.000 g                                                                                               |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | Poland                                                                                                  |

### Technical data

#### Dimensions

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

#### Ambient conditions

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

#### General

|                       |              |
|-----------------------|--------------|
| Rated current at 40°C | 4 A          |
| Rated voltage         | 60 V         |
| Number of positions   | 5            |
| Insulation resistance | ≥ 100 MΩ     |
| Coding                | A - standard |

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## Technical data

### General

|                             |       |
|-----------------------------|-------|
| Status display              | No    |
| 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 halogen-free black                |
| Cable type (abbreviation)                     | PUR                                   |
| Cable abbreviation                            | LiF9YC11Y                             |
| UL AWM style                                  | 20549                                 |
| 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, gray       |
| Overall twist                                 | 5 wires around filler to the core     |
| Shielding                                     | Tinned copper braided shield          |
| Optical shield covering                       | 85 %                                  |
| External sheath, color                        | black-gray RAL 7021                   |
| External cable diameter D                     | 5.9 mm ±0.2 mm                        |
| Smallest bending radius, fixed installation   | 29.5 mm                               |
| Smallest bending radius, movable installation | 59 mm (up to +60°C)                   |
| Number of bending cycles                      | 4000000                               |
| Bending radius                                | 59 mm                                 |
| Traversing path                               | 10 m                                  |
| Traversing rate                               | 3 m/s                                 |

# Sensor/Actuator cable - SAC-5P-M12MS/10,0-170/M12FS SH - 1545315

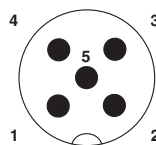
## Technical data

### Cable

|                                 |                                                            |
|---------------------------------|------------------------------------------------------------|
| Acceleration                    | 10 m/s <sup>2</sup>                                        |
| Cable weight                    | 48 kg/km                                                   |
| Outer sheath, material          | PUR                                                        |
| Material conductor insulation   | PP                                                         |
| Conductor material              | Bare Cu litz wires                                         |
| Insulation resistance           | 70 GΩ*km (at 20 °C)                                        |
| Conductor resistance            | max. 57 Ω/km (at 20 °C)                                    |
| Nominal voltage, cable          | 300 V (at 20 °C)                                           |
| Test voltage Core/Core          | 3000 V (at 20 °C)                                          |
| Special properties              | Flexible cable conduit capable                             |
| Flame resistance                | in acc. with UL FT-2                                       |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                   |
| Other resistance                | hydrolysis and microbe resistant                           |
|                                 | 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)            |

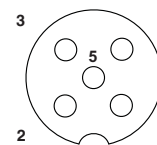
## Drawings

Schematic diagram



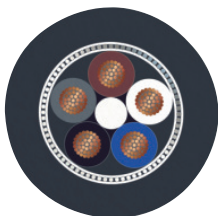
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



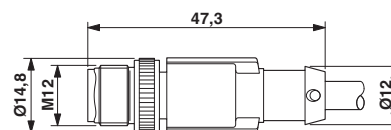
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



PUR halogen-free black [PUR]

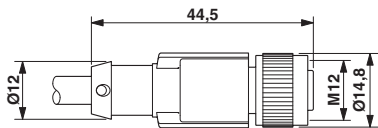
Dimensional drawing



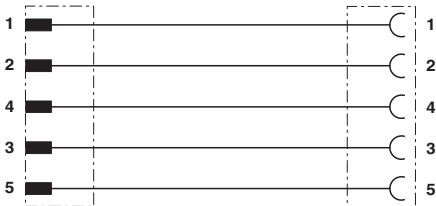
Plug, M12 x 1, straight, shielded

Sensor/Actuator cable - SAC-5P-M12MS/10,0-170/M12FS SH - 1545315

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight, shielded

Contact assignment of M12 connector/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 IN |                                                                                     | 4 A                                                                                                                                                   |               |
| Nominal voltage UN |                                                                                     | 125 V                                                                                                                                                 |               |

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

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

