

## Sensor/Actuator cable - SAC-5P- 3,0-PUR/M12FS - 1669835

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Sensor/Actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, A-coded, Cable length: 3 m

### Product Features

- Easy and safe: 100% electrically tested plug-in components
- Our standard: robust halogen-free PUR cable



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 116.0 g  |
| Custom tariff number                 | 85444290 |
| Country of origin                    | India    |

### Technical data

#### Dimensions

|                                            |       |
|--------------------------------------------|-------|
| Length of cable                            | 3 m   |
| Stripping length of the free conductor end | 50 mm |

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| 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 |

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### Technical data

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | Unwired                       |
| Overvoltage category         | II                            |
| Degree of pollution          | 3                             |
| Insertion/withdrawal cycles  | ≥ 100                         |
| Torque                       | 0.4 Nm (M12 connector)        |

#### 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

|                                        |                 |
|----------------------------------------|-----------------|
| Standard designation                   | M12 connector   |
| Standards/regulations                  | IEC 61076-2-101 |
| 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                                   |

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### Technical data

#### Cable

|                                               |                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|
| 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                                                                 |
| Material conductor insulation                 | PP                                                                  |
| Conductor material                            | Bare Cu litz wires                                                  |
| Insulation resistance                         | ≥ 16 GΩ*km (at 20 °C)                                               |
| Conductor resistance                          | max. 58 Ω/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)                     |

### 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 |

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### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 8.0 | 27279218 |
|------------|----------|

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| 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

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Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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Ex Approvals

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Approvals submitted

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#### Approval details

|                                                                                               |       |
|-----------------------------------------------------------------------------------------------|-------|
| UL Listed  |       |
| Nominal current I <sub>N</sub>                                                                | 4 A   |
| Nominal voltage U <sub>N</sub>                                                                | 125 V |

Sensor/Actuator cable - SAC-5P- 3,0-PUR/M12FS - 1669835

Approvals

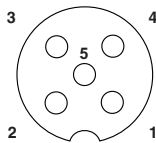
|                                                                                              |       |
|----------------------------------------------------------------------------------------------|-------|
| cUL Listed  |       |
| Nominal current IN                                              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

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

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

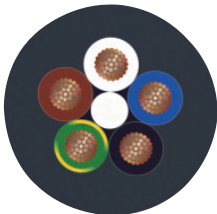
Drawings

Schematic diagram



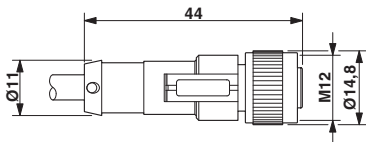
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



PUR halogen-free black [PUR]

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 sockets