

## Sensor/Actuator cable - SAC-3P- 3,0-PUR/M 8FR-2L - 1671072

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Sensor/Actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket angled M8, with 2 LEDs, Cable length: 3 m

### Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics



### Key commercial data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 017918 134921 |
| Weight per Piece (excluding packing) | 77.9 GRM                                                                                                |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | Poland                                                                                                  |

### 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

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### Technical data

#### General

|                              |                              |
|------------------------------|------------------------------|
| Rated current at 40°C        | 4 A                          |
| Rated voltage                | 24 V                         |
| Number of positions          | 3                            |
| Contact resistance           | ≤ 5 mΩ                       |
| Insulation resistance        | ≥ 100 MΩ                     |
| Coding                       | A - standard                 |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| Status display               | 2 LEDs                       |
| Protective circuit/component | Unwired                      |
| Surge voltage category       | II                           |
| Pollution degree             | 3                            |
| Insertion/withdrawal cycles  | ≥ 100                        |
| Torque                       | 0.2 Nm (M8 connectors)       |

#### Material

|                                         |                                             |
|-----------------------------------------|---------------------------------------------|
| Inflammability class 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                                         |

#### Cable

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Cable type                         | PUR halogen-free black                |
| Cable type (abbreviation)          | PUR                                   |
| Cable abbreviation                 | Li9Y11Y-HF                            |
| UL AWM style                       | 20549                                 |
| Conductor cross section            | 3x 0.25 mm <sup>2</sup> (signal line) |
| AWG signal line                    | 24                                    |
| Conductor structure signal line    | 32x 0.10 mm                           |
| Core diameter including insulation | 1.17 mm ±0.02 mm (signal line)        |
| Thickness, insulation              | ≥ 0.38 mm (Core insulation)           |
|                                    | approx. 0.9 mm (Outer cable sheath)   |
| Wire colors                        | brown, blue, black                    |
| Overall twist                      | 3 wires, twisted                      |
| Length of twist, overall twist     | 40 mm                                 |
| External sheath, color             | black-gray RAL 7021                   |

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### Technical data

#### Cable

|                                               |                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|
| External cable diameter D                     | 4.4 mm ±0.15 mm                                                     |
| Smallest bending radius, fixed installation   | 22 mm                                                               |
| Smallest bending radius, movable installation | 44 mm                                                               |
| Number of bending cycles                      | 4000000                                                             |
| Bending radius                                | 44 mm                                                               |
| Traversing path                               | 10 m                                                                |
| Traversing rate                               | 3 m/s                                                               |
| Acceleration                                  | 10 m/s <sup>2</sup>                                                 |
| Cable weight                                  | 24 kg/km                                                            |
| Outer sheath, material                        | PUR                                                                 |
| Material conductor insulation                 | PP                                                                  |
| Conductor material                            | Bare Cu litz wires                                                  |
| Insulation resistance                         | ≥ 100 GΩ*km (at 20 °C)                                              |
| Conductor resistance                          | ≤ 78 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 |
| 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                              | hydrolysis and microbe resistant                                    |
|                                               | Highly resistant to acids, alkaline solutions and solvents          |
|                                               | 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 |

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27061801 |

#### 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

#### Approvals

UL Listed / cUL Listed / GOST / cULus Listed

#### Ex Approvals

#### Approvals submitted

### Approval details

|                                                                                               |      |
|-----------------------------------------------------------------------------------------------|------|
| UL Listed  |      |
| Nominal current I <sub>N</sub>                                                                | 4 A  |
| Nominal voltage U <sub>N</sub>                                                                | 24 V |

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## Approvals

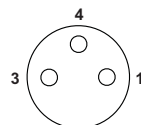
|                                                                                              |      |
|----------------------------------------------------------------------------------------------|------|
| cUL Listed  |      |
| Nominal current I <sub>N</sub>                                                               | 4 A  |
| Nominal voltage U <sub>N</sub>                                                               | 24 V |

|                                                                                        |
|----------------------------------------------------------------------------------------|
| GOST  |
|----------------------------------------------------------------------------------------|

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

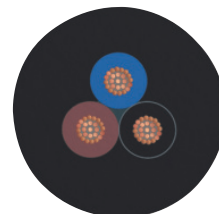
## Drawings

Schematic diagram



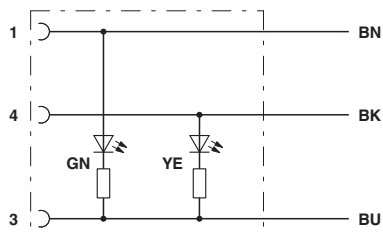
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



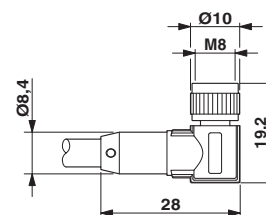
PUR halogen-free black [PUR]

Circuit diagram



Contact assignment of M8 socket with 2 LEDs

Dimensioned drawing



Socket M8 x 1, angled, with LED

