

## Sensor/actuator cable - SAC-3P-M 8MS/10,0-PUR/M 8FS - 1693322

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, on Socket straight M8, cable length: 10 m

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 017918 438746 |
| GTIN         | 4017918438746                                                                                           |
| Sales Key    | 02                                                                                                      |

### 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

|                       |              |
|-----------------------|--------------|
| Rated current at 40°C | 4 A          |
| Rated voltage         | 48 V AC      |
|                       | 60 V DC      |
| Number of positions   | 3            |
| Insulation resistance | ≥ 100 MΩ     |
| Coding                | A - standard |
| Status display        | No           |
| Overvoltage category  | II           |
| Degree of pollution   | 3            |

## Sensor/actuator cable - SAC-3P-M 8MS/10,0-PUR/M 8FS - 1693322

### Technical data

#### 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-HF                  |
| UL AWM style                                  | 20549                       |
| Conductor cross section                       | 3x 0.25 mm <sup>2</sup>     |
| AWG signal line                               | 24                          |
| Conductor structure signal line               | 32x 0.10 mm                 |
| Core diameter including insulation            | 1.17 mm ±0.02 mm            |
| Thickness, insulation                         | ≥ 0.21 mm (Core insulation) |
| Wire colors                                   | brown, blue, black          |
| Overall twist                                 | 3 wires, twisted            |
| Length of twist, overall twist                | 40 mm                       |
| External sheath, color                        | black-gray RAL 7021         |
| Outer sheath thickness                        | approx. 0.5 mm              |
| External cable diameter D                     | 3.6 mm ±0.15 mm             |
| Smallest bending radius, fixed installation   | 18 mm                       |
| Smallest bending radius, movable installation | 36 mm                       |
| Number of bending cycles                      | 10000000                    |
| Bending radius                                | 44 mm                       |
| Traversing path                               | 10 m                        |
| Traversing rate                               | 3 m/s                       |
| Acceleration                                  | 10 m/s <sup>2</sup>         |
| Cable weight                                  | 18 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                    |

# Sensor/actuator cable - SAC-3P-M 8MS/10,0-PUR/M 8FS - 1693322

## Technical data

### Cable

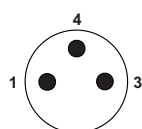
|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| Special properties              | Flexible cable conduit capable                                      |
|                                 | Silicone-free                                                       |
|                                 | Free of substances which would hinder coating with paint or varnish |
| Flame resistance                | in accordance with UL 758/1581 FT2                                  |
|                                 | DIN EN 60332-2-2 (20 s)                                             |
| 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)                     |

### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

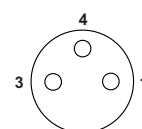
## Drawings

Schematic diagram



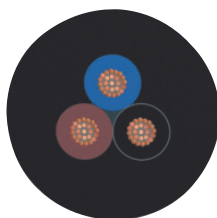
Pin assignment M8 plug, 3-pos., view male side

Schematic diagram



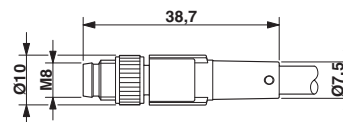
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



PUR halogen-free black [PUR]

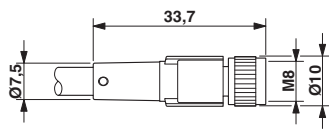
Dimensional drawing



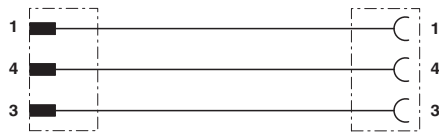
M8 x 1 male plug, straight version

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Dimensional drawing



Circuit diagram



Socket M8 x 1, straight

Contact assignment of M8 plugs/sockets

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 voltage UN |                                                                                     | 60 V                                                                                                                                                  |               |
| Nominal current IN |                                                                                     | 4 A                                                                                                                                                   |               |

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 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 voltage UN |                                                                                     | 60 V                                                                                                                                                  |               |
| Nominal current IN |                                                                                     | 4 A                                                                                                                                                   |               |

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

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