

## Sensor/actuator cable - SAC-3P-M 8MS/ 3,0-PUR/M 8SIFS - 1417701

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

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Save time, thanks to installation with snap-in rapid interlock system
- ✓ Our standard: robust halogen-free PUR cable

RoHS

### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 055626 123356 |
| GTIN                                 | 4055626123356   |
| Weight per Piece (excluding packing) | 61.520 g  |
| Custom tariff number                 | 85444290  |
| Country of origin                    | Germany   |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 3 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 |

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## Technical data

### General

|                              |                              |
|------------------------------|------------------------------|
|                              | 60 V DC                      |
| Number of positions          | 3                            |
| Insulation resistance        | ≥ 100 MΩ                     |
| Coding                       | A - standard                 |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| 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

|  |                 |
|--|-----------------|
| Standard designation                   | M8 connector    |
| Standards/regulations                  | IEC 61076-2-104 |
| 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                       |

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## Technical data

### Cable

|   |   |
|---|---|
| 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  |
| 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)                     |

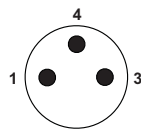
### Environmental Product Compliance

|            |   |
|------------|---|
| 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

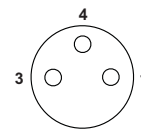
# Sensor/actuator cable - SAC-3P-M 8MS/ 3,0-PUR/M 8SIFS - 1417701

Schematic diagram



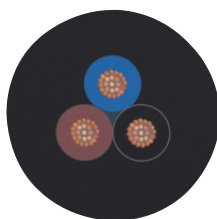
Pin assignment M8 plug, 3-pos., view male side

Schematic diagram



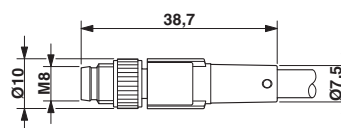
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



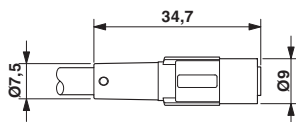
PUR halogen-free black [PUR]

Dimensional drawing



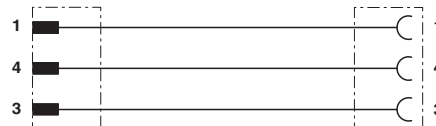
M8 x 1 male plug, straight version

Dimensional drawing



M8 snap-in sockets

Circuit diagram



Contact assignment of M8 plugs/sockets

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 31251501 |
|-------------|----------|

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## 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 |
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| Nominal current IN |  | 4 A   |               |

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

## Accessories

### Accessories

#### Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

## Sensor/actuator cable - SAC-3P-M 8MS/ 3,0-PUR/M 8SIFS - 1417701

### Accessories

Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

### Marker carrier cable

Conductor marker carrier - PATO 2/15 - 1013122



Conductor marker carrier, transparent, unlabeled, mounting type: clip on, cable diameter range: 2.8 - 4.4 mm, lettering field size: 4 x 15 mm

Conductor marker carrier - PATO 3/15 - 1013135



Conductor marker carrier, transparent, unlabeled, mounting type: clip on, cable diameter range: 4.4 - 6.7 mm, lettering field size: 4 x 15 mm

Conductor marker carrier - PATO 4/15 - 1013148



Conductor marker carrier, transparent, unlabeled, mounting type: clip on, cable diameter range: 6.7 - 10 mm, lettering field size: 4 x 15 mm

### Marker pen

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### Accessories

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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