

## Sensor/actuator cable - SAC-3P-M12MS/5,0-PUR/ M12FR2LBK - 1555457

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Sensor/actuator cable, 3-position, PUR/PVC, black RAL 9005, Plug straight M12, A-coded, on Socket angled M12, A-coded, with 2 LEDs, cable length: 5 m

RoHS

### Key Commercial Data

|                        |                                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------|
| Packing unit           | 5 pc                                                                                                   |
| Minimum order quantity | 50 pc                                                                                                  |
| GTIN                   | <br>4 046356 165617 |
| GTIN                   | 4046356165617                                                                                          |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 5 m |
|-----------------|-----|

#### Ambient conditions

|                      |      |
|----------------------|------|
| Degree of protection | IP65 |
|                      | IP67 |
|                      | IP68 |

#### General

|                             |              |
|-----------------------------|--------------|
| Rated current at 40°C       | 4 A          |
| Rated voltage               | 24 V         |
|                             | 24 V DC      |
| Number of positions         | 3            |
| Insulation resistance       | ≥ 100 MΩ     |
| Coding                      | A - standard |
| Status display              | 2 LEDs       |
| Overvoltage category        | II           |
| Degree of pollution         | 3            |
| Insertion/withdrawal cycles | ≥ 100        |

#### Material

|                                        |      |
|----------------------------------------|------|
| Flammability rating according to UL 94 | HB   |
| Contact material                       | CuSn |

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### Technical data

#### Material

|                          |                                             |
|--------------------------|---------------------------------------------|
| 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/PVC black                                                |
| Cable type (abbreviation)                     | 350                                                          |
| Cable abbreviation                            | LiYY-11Y                                                     |
| UL AWM style                                  | 20549 / 1729                                                 |
| Conductor cross section                       | 0.34 mm <sup>2</sup>                                         |
| Conductor structure signal line               | 42x 0.10 mm                                                  |
| Core diameter including insulation            | 1.5 mm ±0.05 mm                                              |
| Thickness, insulation                         | ≥ 0.23 mm (Core insulation)                                  |
| Wire colors                                   | brown, blue, black                                           |
| Overall twist                                 | 3 wires, twisted                                             |
| Length of twist, overall twist                | 55 mm                                                        |
| External sheath, color                        | black-gray RAL 7021                                          |
| Inner sheath thickness                        | approx. 0.5 mm                                               |
| Outer sheath thickness                        | ≥ 0.38 mm (Outer cable sheath)                               |
| External cable diameter D                     | 5.2 mm ±0.2 mm                                               |
| Smallest bending radius, fixed installation   | 26 mm                                                        |
| Smallest bending radius, movable installation | 52 mm                                                        |
| Cable weight                                  | 37 kg/km                                                     |
| Outer sheath, material                        | PUR                                                          |
| Material, inner sheath                        | PVC                                                          |
| Material conductor insulation                 | PVC                                                          |
| Conductor material                            | Bare Cu litz wires                                           |
| Insulation resistance                         | ≥ 100 MΩ*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 use, however not recommended for use in drag chains |
| Flame resistance                              | according to UL 758/1581 (horizontal)                        |
|                                               | in accordance with UL 758/1581 FT2                           |
|                                               | According to DIN EN 60332-2-2 (20 s)                         |

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### Technical data

#### Cable

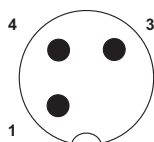
|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Other resistance                | hydrolysis and microbe resistant                |
|                                 | Low adhesion                                    |
|                                 | abrasion-resistant                              |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -20 °C ... 80 °C (cable, flexible installation) |

#### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

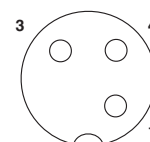
### Drawings

Schematic diagram



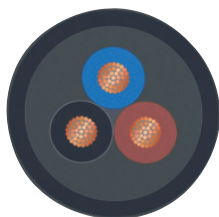
Pin assignment M12 plug, 3-pos., A-coded, view male side

Schematic diagram



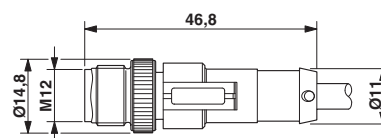
Pin assignment M12 socket, 3-pos., A-coded, view female side

Cable cross section



PUR/PVC black [350]

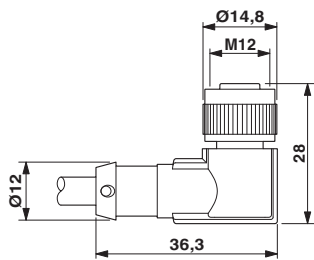
Dimensional drawing



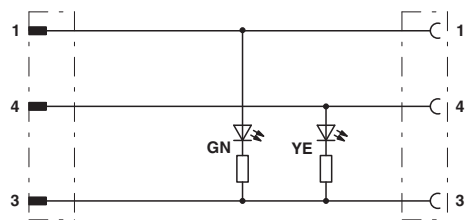
Plug, M12 x 1, straight, shielded

Sensor/actuator cable - SAC-3P-M12MS/5,0-PUR/  
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Dimensional drawing



Circuit diagram



Socket M12 x 1, angled, with LED

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 | 24 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 | 24 V |                                                                                     |                                                                                                                                                       |               |
| Nominal current IN | 4 A  |                                                                                     |                                                                                                                                                       |               |

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

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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

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