

## Sensor/Actuator cable - SAC-3P-M12Y/2X3,0-PUR/M 8FS - 1671360

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Sensor/Actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M8 and Socket straight M8, A-coded, Cable length: 3 m



### Key commercial data

|                                      |  |
|--------------------------------------|--|
| Packing unit                         | 1 pc   |
| GTIN                                 | <br>4 017918 135195 |
| Weight per Piece (excluding packing) | 159.1 g  |
| Custom tariff number                 | 85444290   |
| Country of origin                    | Poland   |

### 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         | 60 V                          |
| Number of positions   | 3                             |
| Contact resistance    | ≤ 5 mΩ                        |
| Insulation resistance | ≥ 100 MΩ                      |
| Coding                | A - standard                  |
| Standards/regulations | M12 connector IEC 61076-2-101 |
|                       | M8 connector IEC 61076-2-104  |
| Status display        | No                            |

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## Technical data

### General

|                             |                        |
|-----------------------------|------------------------|
| Surge voltage category      | II                     |
| Pollution degree            | 3                      |
| Insertion/withdrawal cycles | ≥ 100                  |
| Torque                      | 0.4 Nm (M12 connector) |
|                             | 0.2 Nm (M8 connectors) |

### Material

|   |                              |
|---|------------------------------|
| Inflammability class according to UL 94 | HB                           |
| Contact material                        | CuSn                         |
| Contact surface material                | Ni/Au                        |
| Material, knurls                        | Zinc die-cast, nickel-plated |

### 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                   |
| 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                               |

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## Technical data

### Cable

|                                 |   |
|---------------------------------|---|
| 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 |
| eCl@ss 7.0 | 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

# Sensor/Actuator cable - SAC-3P-M12Y/2X3,0-PUR/M 8FS - 1671360

## Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

## Approval details

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

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

EAC

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

## Accessories

Accessories

Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

## Sensor/Actuator cable - SAC-3P-M12Y/2X3,0-PUR/M 8FS - 1671360

### Accessories

Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, unlabeled, can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

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Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, unlabeled, can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

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### Marker carrier cable

Conductor marker carrier - PATO 2/15 - 1013122



Conductor marker carrier, transparent, unlabeled, Mounting type: clip on, Cable diameter: 2.8-4.4 mm, Lettering field: 4 x 15 mm

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Conductor marker carrier - PATO 3/15 - 1013135



Conductor marker carrier, transparent, unlabeled, Mounting type: clip on, Cable diameter: 4.4-6.7 mm, Lettering field: 4 x 15 mm

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Conductor marker carrier - PATO 4/15 - 1013148



Conductor marker carrier, transparent, unlabeled, Mounting type: clip on, Cable diameter: 6.7-10 mm, Lettering field: 4 x 15 mm

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### Marker pen

## Sensor/Actuator cable - SAC-3P-M12Y/2X3,0-PUR/M 8FS - 1671360

### 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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### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets



### Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988



### Screwdriver tools

Tool - SAC BIT M8-D10 - 1208461



Nut for assembling sensor/actuator cables with M8 connector and for M8 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

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## Sensor/Actuator cable - SAC-3P-M12Y/2X3,0-PUR/M 8FS - 1671360

### Accessories

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

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Torque tool

Torque screwdriver - TSD 02 SAC - 1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

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Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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Torque screwdriver - TSD-M 1,2NM - 1212224



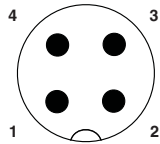
Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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Drawings

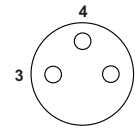
# Sensor/Actuator cable - SAC-3P-M12Y/2X3,0-PUR/M 8FS - 1671360

Schematic diagram



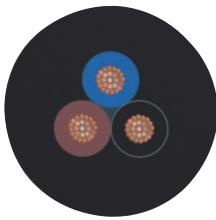
Pin assignment M12 Y plug, 4-pos., A-coded, view plug side

Schematic diagram



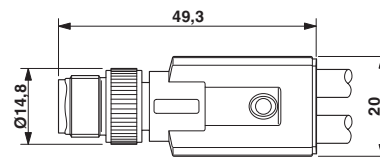
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



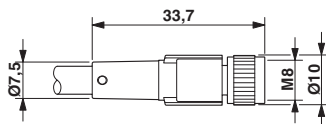
PUR halogen-free black [PUR]

Dimensioned drawing



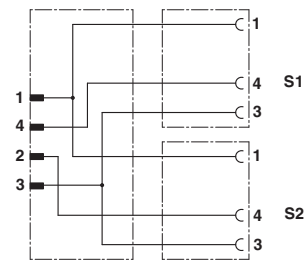
Plug M12 x 1, Y distributor

Dimensioned drawing



Socket M8 x 1, straight

Circuit diagram



Contact assignment of M12 plugs / M8 sockets