

## Sensor/Actuator cable - SAC-3P-M12Y/2X1,5-PUR/M 8FS - 1671357

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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: 1.5 m



### Key commercial data

|                      |  |
|----------------------|--|
| Packing unit         | 1 PCE  |
| GTIN                 | <br>4 017918 135188 |
| Custom tariff number | 85444290   |
| Country of origin    | POLAND   |

### Technical data

#### General data

|                                 |                                  |
|---------------------------------|----------------------------------|
| Rated current at 40°C           | 4 A                              |
| Rated voltage                   | 60 V                             |
| Number of positions             | 3                                |
| Volume resistance               | ≤ 5 mΩ                           |
| Insulation resistance           | ≥ 100 MΩ                         |
| Length of cable                 | 1.5 m                            |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |

#### General characteristics

|                        |                                       |
|------------------------|---------------------------------------|
| Standards/regulations  | M12 plug-in connector IEC 61076-2-101 |
| Standards/regulations  | M8 plug-in connector IEC 61076-2-104  |
| Coding                 | A - standard                          |
| Surge voltage category | II                                    |
| Pollution degree       | 3                                     |
| Degree of protection   | IP65                                  |

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### Technical data

#### General characteristics

|                             |   |
|-----------------------------|---|
| Degree of protection        | IP67  |
| Degree of protection        | IP68  |
| Insertion/withdrawal cycles | ≥ 100                                       |
| Torque                      | 0.4 Nm (M12 plug-in connector)              |
| Torque                      | 0.2 Nm (M8 plug-in connectors)              |
| 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   |
| Status display              | No  |

#### Conductor data

|   |                                       |
|---|---------------------------------------|
| 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)           |
| Thickness, 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                                   |

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### Technical data

#### Conductor data

|                                 |   |
|---------------------------------|---|
| Material conductor insulation   | PP  |
| Conductor material              | Bare Cu litz wires  |
| Insulation resistance           | $\geq 100 \text{ G}\Omega\cdot\text{km}$ (at 20 °C)                 |
| Conductor resistance            | $\leq 78 \text{ }\Omega/\text{km}$ (at 20 °C)                       |
| Nominal voltage, conductor      | $\leq 300 \text{ V}$  |
| Test voltage, conductor         | $\geq 3000 \text{ V}$   |
| Special properties              | Flexible cable conduit capable                                      |
| Special properties              | Silicone-free   |
| Special properties              | 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                                    |
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents          |
| Other resistance                | Resistant to salt water   |
| Other resistance                | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                        |
| Ambient temperature (operation) | -25 °C ... 80 °C (cable, flexible installation)                     |

### Classifications

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |

## Approvals

### Approvals

#### Approvals

UL Listed / GOST / cUL Listed / GOST / cULus Listed

#### Ex Approvals

#### Approvals submitted

## Approval details

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

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

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

## Sensor/Actuator cable - SAC-3P-M12Y/2X1,5-PUR/M 8FS - 1671357

### Approvals

GOST 

cULus Listed 

### Accessories

#### Accessories

##### Fuse

Fuse clip - SAC-M12-EXCLIP-M - 1558988



Fuse clip for the pin side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

### 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

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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### Accessories

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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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 - 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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Protection and sealing elements

## Sensor/Actuator cable - SAC-3P-M12Y/2X1,5-PUR/M 8FS - 1671357

### Accessories

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



### Tools

Torque screwdriver - TSD 02 SAC - 1208487



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

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

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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## Accessories

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



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

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

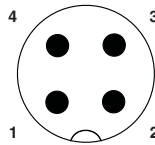
Tool - SAC BIT M12-D15 - 1208432



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

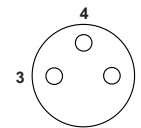
## Drawings

Schematic diagram



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

Schematic diagram

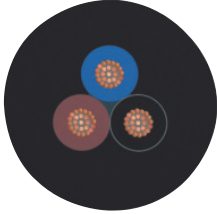


Pin assignment M8 socket, 3-pos., view female side



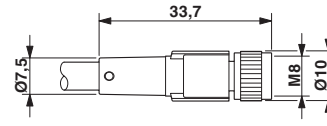
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Cable cross section



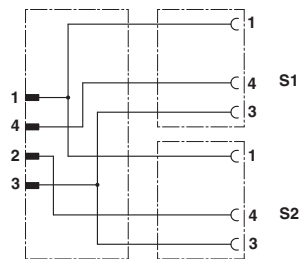
PUR halogen-free black [PUR]

Dimensioned drawing



Socket M8 x 1, straight

Circuit diagram



Contact assignment of M12 plugs / M8 sockets

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Dimensioned drawing

