

## Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-V - 1443200

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Valve connector BI (11 mm), with 1 LED, connected with Varistor, Cable length: 5 m

### Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Robust valve connector with varistor as protective circuit
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics
- ✓ Our standard: robust halogen-free PUR cable



### Key commercial data

|                      |          |
|----------------------|----------|
| Packing unit         | 1 1      |
| Custom tariff number | 85444290 |
| Country of origin    | Poland   |

### Technical data

#### Dimensions

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

#### Ambient conditions

|                                 |                               |
|---------------------------------|-------------------------------|
| Ambient temperature (operation) | -20 °C ... 85 °C (valve plug) |
| Degree of protection            | IP65                          |
|                                 | IP67                          |
|                                 | IP68                          |

#### General

|                       |        |
|-----------------------|--------|
| Rated current at 40°C | 4 A    |
| Rated voltage         | 24 V   |
| Number of positions   | 3      |
| Contact resistance    | ≤ 5 mΩ |

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### Technical data

#### General

|                              |                          |
|------------------------------|--------------------------|
| Insulation resistance        | ≥ 100 MΩ                 |
| Status display               | 1 LED                    |
| Protective circuit/component | Varistor                 |
| Surge voltage category       | III                      |
| Pollution degree             | 3                        |
| Torque                       | 0.6 Nm (Valve connector) |

#### Material

|   |                   |
|---|-------------------|
| Inflammability class according to UL 94 | V0                |
| Valve plug contact material             | CuSn              |
| Valve plug contact surface material     | Sn                |
| Valve plug contact insert material      | PA 66             |
| Material housing valve plug             | TPU               |
| Sealing material                        | TPU (Seal molded) |

#### Cable

|   |                                |
|---|--------------------------------|
| Cable type                                  | PUR halogen-free black         |
| Cable type (abbreviation)                   | PUR                            |
| Cable abbreviation                          | Li9Y11Y-HF                     |
| UL AWM style                                | 20549                          |
| Conductor cross section                     | 3x 0.5 mm <sup>2</sup>         |
| AWG signal line                             | 20                             |
| Conductor structure signal line             | 28x 0.15 mm                    |
| Core diameter including insulation          | 1.5 mm ±0.05 mm (signal line)  |
| Wire colors                                 | Black 1, black 2, green/yellow |
| Overall twist                               | 3 wires, twisted               |
| External sheath, color                      | Black-gray RAL 7021            |
| External cable diameter D                   | 4.5 mm ± 0.2 mm                |
| Smallest bending radius, fixed installation | 22.5 mm                        |
| Number of bending cycles                    | 15000000                       |
| Bending radius                              | 50 mm                          |
| Traversing path                             | 0.9 m                          |
| Traversing rate                             | 5 m/s                          |
| Acceleration                                | 30 m/s <sup>2</sup>            |
| Outer sheath, material                      | PUR                            |
| Material conductor insulation               | PP                             |
| Conductor material                          | Bare Cu litz wires             |
| Insulation resistance                       | min. 20 MΩ*km                  |

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### Technical data

#### Cable

|                                 |  |
|---------------------------------|--|
| Conductor resistance            | 39 Ω/km (at 20 °C)   |
| Nominal voltage, cable          | ≤ 300 V  |
| Test voltage, cable             | ≥ 1200 V   |
| Flame resistance                | According to DIN VDE 0482                                  |
|                                 | According to DIN EN 50265-2-1                              |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                   |
| Other resistance                | Largely oil-resistant                                      |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)               |
|                                 | -20 °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 | 27279218 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

#### 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- 5,0-PUR/BI-1L-V - 1443200

### Approvals

Approvals

GOST

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Ex Approvals

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Approvals submitted

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### Approval details

GOST 

### 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

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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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## Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-V - 1443200

### 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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### Cutting tools

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

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### Marker carrier cable

Conductor marker carrier - PATG 2/15 - 1013038



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 2-4 mm, Lettering field: 4 x 15 mm

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Conductor marker carrier - PATG 3/15 - 1013041



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 4-7 mm, Lettering field: 4 x 15 mm

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Conductor marker carrier - PATG 4/15 - 1013054



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 6-10 mm, Lettering field: 4 x 15 mm

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### Accessories

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#### Marker pen

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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#### Mounting material

Screw - SAC-V-SCREW-M3-29 KNURL - 1403779



Fillister head screw with plastic knurl, M3 x 40

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#### Screwdriver tools

Screw insert - SF-BIT-PH 1-70 - 1212582



Screw bit, PH crosshead, E6.3-1/4" drive, size: PH 1 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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#### Stripping tool

Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from  $\varnothing$  of 4.4 to 7 mm, any stripping length

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## Accessories

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

## Torque tool

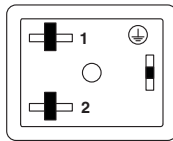
Torque screwdriver - TSD-M 1,2NM - 1212224



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

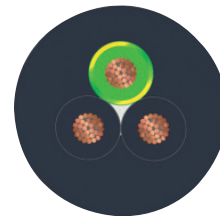
## Drawings

Schematic diagram



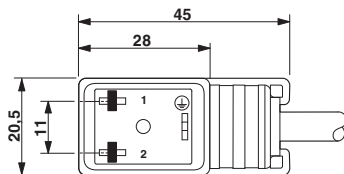
Valve connector pin assignment, type BI

Cable cross section



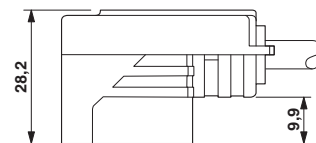
PUR halogen-free black [PUR]

Dimensioned drawing



Valve connector, type BI

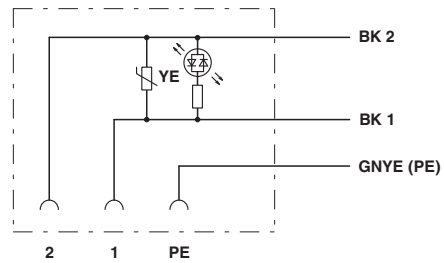
Dimensioned drawing



Valve connector, type BI, side view

## Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-V - 1443200

Circuit diagram



Contact assignment of the valve plug