

## Sensor/actuator cable - SAC-3P- 5,0-PUR/C-1L-Z - 1435551

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector C (8 mm), with 1 LED, connected with Z diode, cable length: 5 m

### Your advantages

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

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 046356 413824 |
| GTIN         | 4046356413824                                                                                           |

### Technical data

#### Dimensions

|                                            |             |
|--------------------------------------------|-------------|
| Length of cable                            | 5 m         |
| Stripping length of the free conductor end | 50 mm       |
| Central screw valve connector              | M2,5 x 27,5 |

#### Ambient conditions

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

#### General

|                       |         |
|-----------------------|---------|
| Rated current at 40°C | 4 A     |
| Rated voltage         | 24 V AC |
|                       | 24 V DC |

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## Technical data

### General

|                              |                                               |
|------------------------------|-----------------------------------------------|
| Number of positions          | 3                                             |
| Color handle area            | black                                         |
| Insulation resistance        | $\geq 100 \text{ M}\Omega$                    |
| Standards/regulations        | Valve connector EN 175301-803                 |
| Status display               | 1 LED                                         |
| Protective circuit/component | Z diode                                       |
| Pulse power $W_{\text{max}}$ | 40 W (at 100 $\mu\text{s}$ square-wave pulse) |
| Terminal voltage             | 70 V (at 2 mA constant current)               |
| Reverse voltage              | 50 V                                          |
| Overvoltage category         | III                                           |
| Degree of pollution          | 3                                             |
| Torque                       | 0.6 Nm (Valve connector)                      |

### Material

|                                        |                   |
|----------------------------------------|-------------------|
| Flammability rating according to UL 94 | V0                |
| Valve plug contact material            | CuSn              |
| Valve plug contact surface material    | Sn                |
| Valve plug contact insert material     | PA 6.6            |
| Material housing valve plug            | TPU               |
| Sealing material                       | TPU (Seal molded) |

### Standards and Regulations

|                                        |                               |
|----------------------------------------|-------------------------------|
| Standards/specifications               | Valve connector EN 175301-803 |
| Flammability rating according to UL 94 | V0                            |

### 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 $\pm 0.05$ 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 $\pm 0.2$ mm                |
| Smallest bending radius, fixed installation | 22.5 mm                            |
| Number of bending cycles                    | 15000000                           |
| Bending radius                              | 50 mm                              |
| Traversing path                             | 0.9 m                              |

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### Technical data

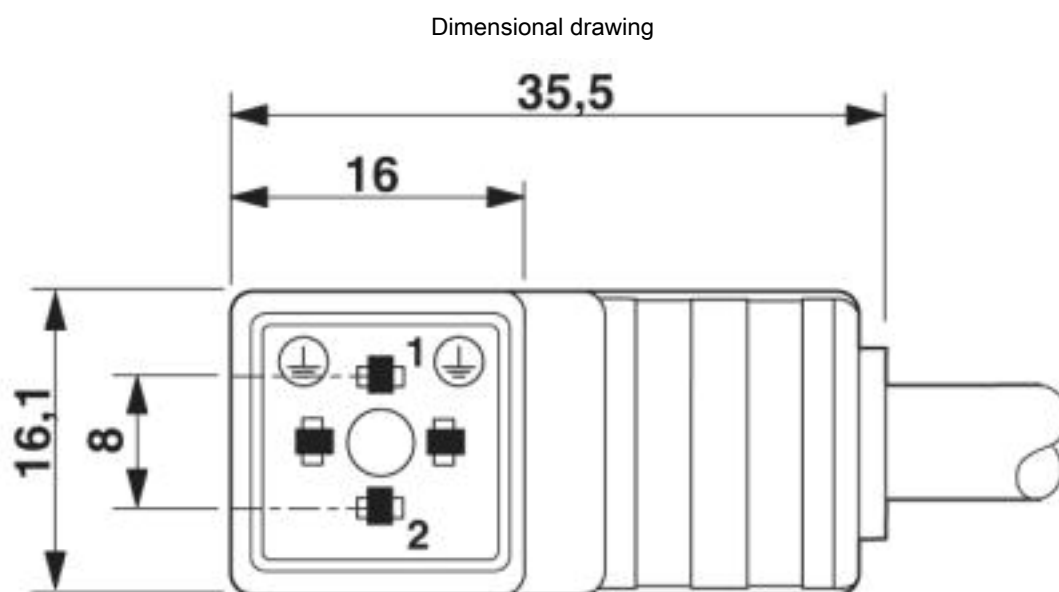
#### Cable

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

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

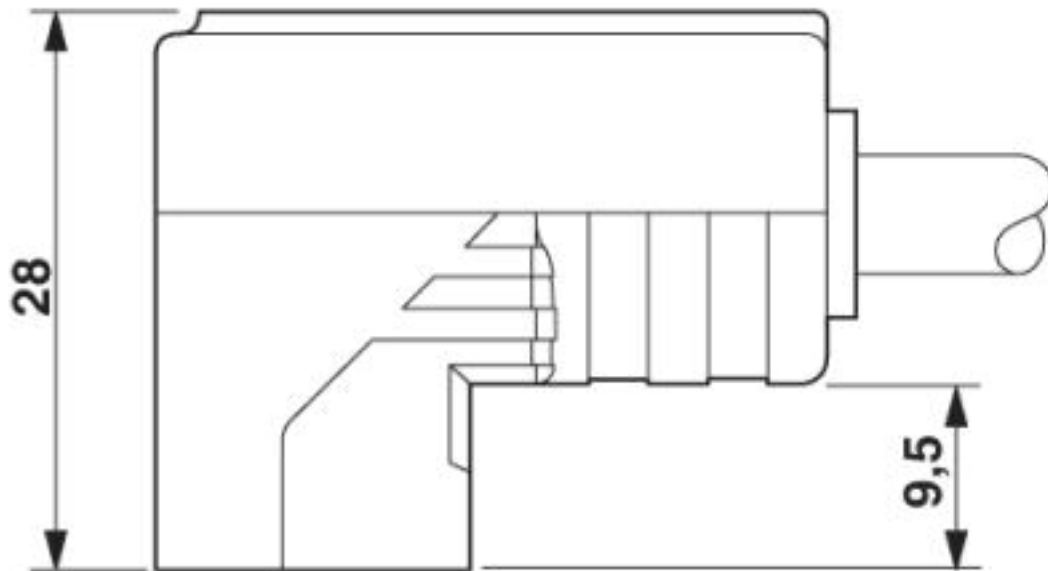
### Drawings



Valve connector, type C

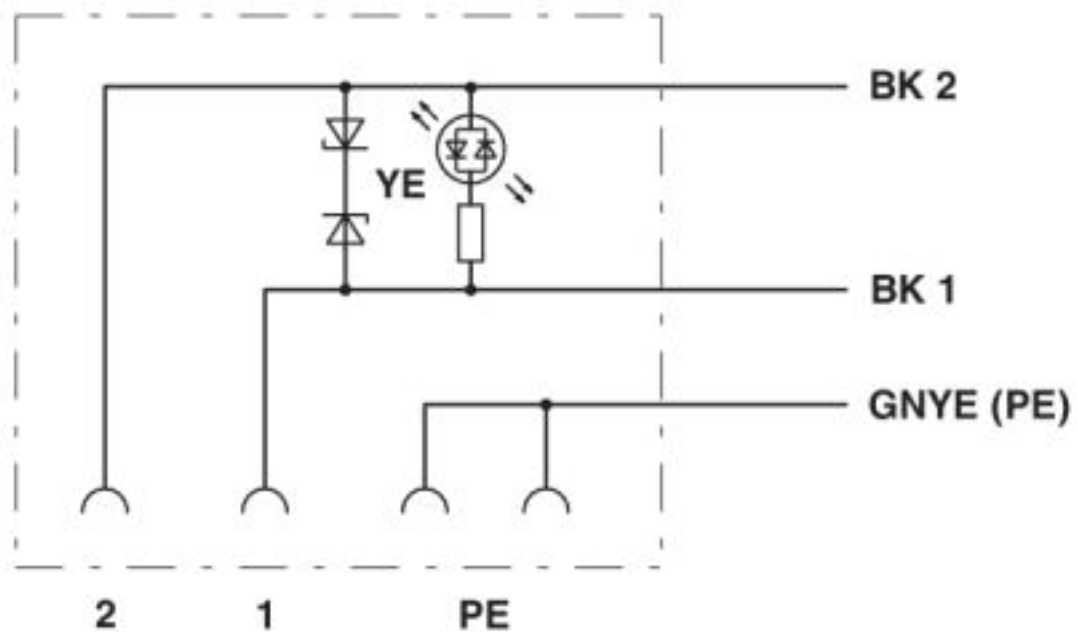
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Dimensional drawing



Valve connector, type C, side view

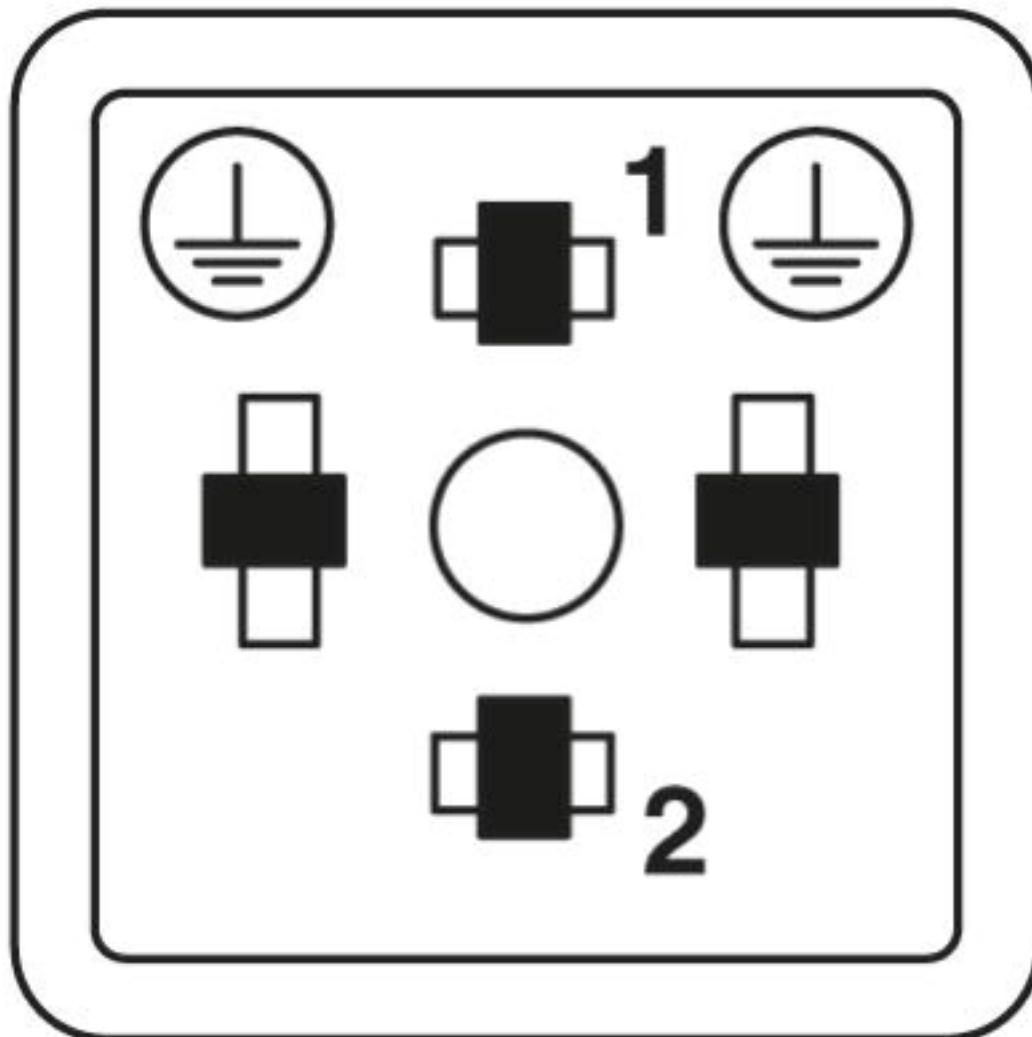
Circuit diagram



Contact assignment of the valve plug

## Sensor/actuator cable - SAC-3P- 5,0-PUR/C-1L-Z - 1435551

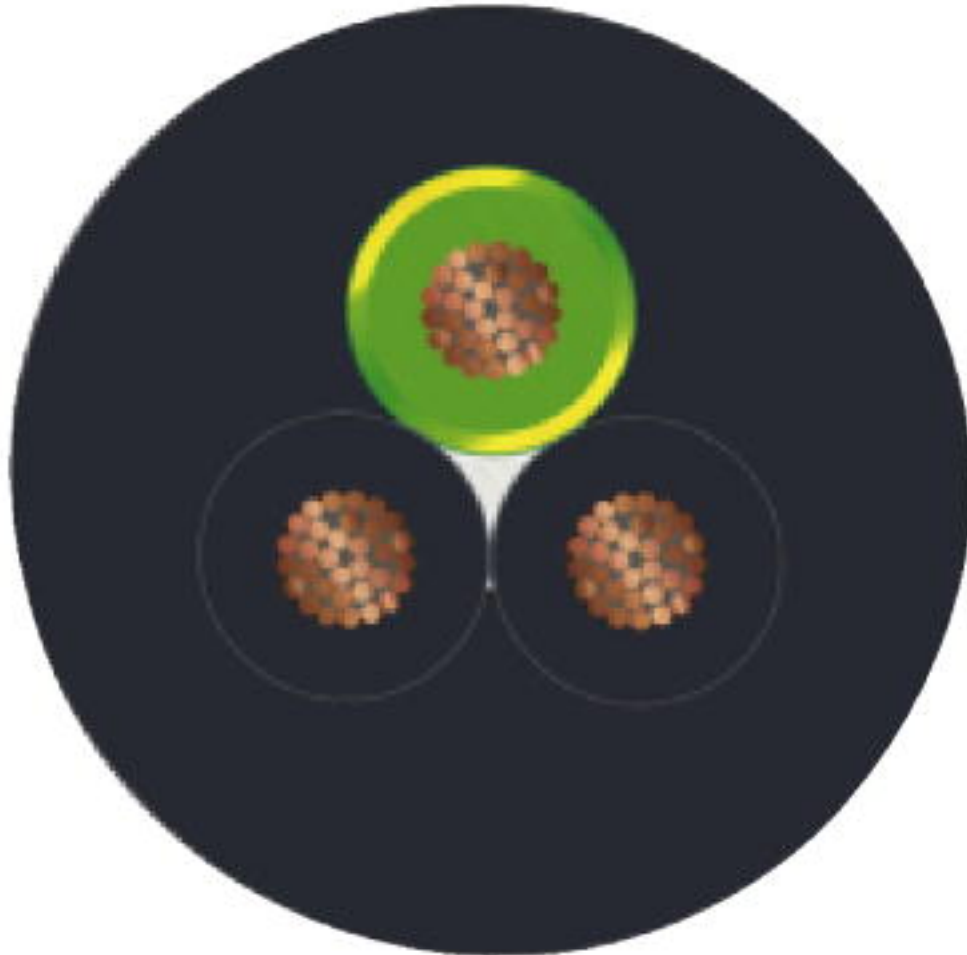
Schematic diagram



Valve connector connector pin assignment, type C

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Cable cross section



PUR halogen-free black [PUR]

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27060312 |
| eCl@ss 4.0    | 27060300 |
| eCl@ss 4.1    | 27060300 |
| eCl@ss 5.0    | 27061800 |
| eCl@ss 5.1    | 27061800 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 8.0    | 27279218 |
| eCl@ss 9.0    | 27060312 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

## Approvals

### Approvals

#### Approvals

#### CSAus

#### Ex Approvals

### Approval details

|                    |                                                                                     |                                                                                                                                         |       |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSAus              |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
| Nominal voltage UN |                                                                                     | 24 V                                                                                                                                    |       |
| Nominal current IN |                                                                                     | 6 A                                                                                                                                     |       |

## Accessories

### Accessories

### Conductor marking

## Sensor/actuator cable - SAC-3P- 5,0-PUR/C-1L-Z - 1435551

### Accessories

Insert label - PABA WH/23 - 1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

Insert label - PABA YE/23 - 1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

### Corrugated pipe

Protective hose - WP-PA HF 13,0 BK - 3240681



Polyamide protective hose, inflammability class V0, UV resistant

Protective hose - WP-PA HF-HB 13,0 BK - 3240839



Polyamide protective hose, inflammability class HB, UV resistant

### Cutting tools

Diagonal cutter - CUTFOX-S VDE - 1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

### 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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### Screwdriver tools

Screw insert - SF-BIT-PH 2-70 - 1212583



Screw bit, PH crosshead, E6.3-1/4" drive, size: PH 2 x 70 mm, suitable for holder according to DIN 3126-F6.3/ISO 1173

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### Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

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Stripping tool - WIREFOX SAC - 1212623



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

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Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

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### Torque tool

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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

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Protective hose adapter - WP-CTA POM 13,0 BK - 1422884



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

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