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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector A, with 1 LED, connected with Damping diode, cable length: 3 m

### Your advantages

- ☑ Easy and safe: 100% electrically tested plug-in components
- ☑ Robust valve connector with freewheeling diode as protective circuit
- ☑ Convenient: increased machine availability thanks to quick and easy diagnostics



## **Key Commercial Data**

| Packing unit                         | 1 pc            |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 510318 |
| GTIN                                 | 4046356510318   |
| Weight per Piece (excluding packing) | 120.000 g       |
| Custom tariff number                 | 85444290        |
| Country of origin                    | Poland          |

## Technical data

#### **Dimensions**

| Length of cable               | 3 m     |
|-------------------------------|---------|
| Central screw valve connector | M3 x 29 |

#### Ambient conditions

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



## Technical data

### Ambient conditions

|                              | IP67                          |
|------------------------------|-------------------------------|
| General                      |                               |
| Rated current at 40°C        | 2 A                           |
| Rated voltage                | 24 V DC                       |
| Number of positions          | 3                             |
| Color handle area            | black                         |
| Insulation resistance        | $\geq$ 100 M $\Omega$         |
| Standards/regulations        | Valve connector EN 175301-803 |
| Status display               | 1 LED                         |
| Protective circuit/component | Damping diode                 |
| Overvoltage category         | III                           |
| Degree of pollution          | 3                             |
| Torque                       | 0.6 Nm (Valve connector)      |

## Material

| Flammability rating according to UL 94 | НВ                |
|--|-------------------|
| 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

| Standard designation                   | Valve connector |
|--|-----------------|
| Standards/regulations                  | EN 175301-803   |
| Flammability rating according to UL 94 | НВ              |

### 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 mm²                     |
| 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               |



## Technical data

## Cable

| 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/s²  |
| 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)                |

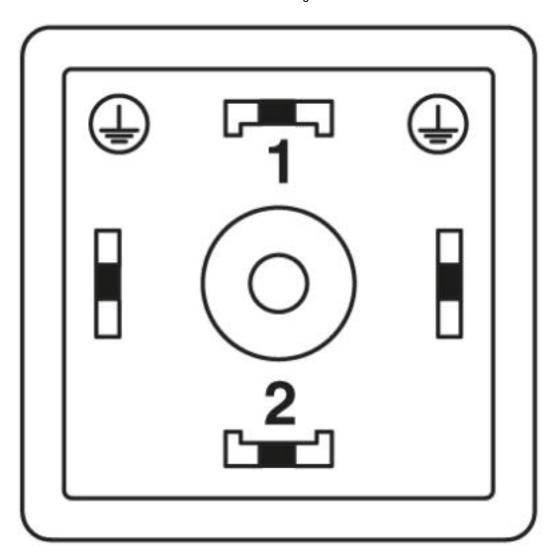
## **Environmental Product Compliance**

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

## Drawings



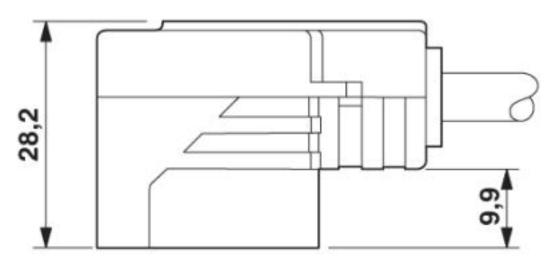
Schematic diagram



Valve connector pin assignment, type A

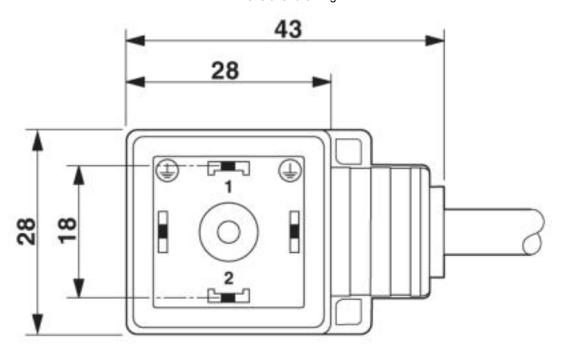


## Dimensional drawing



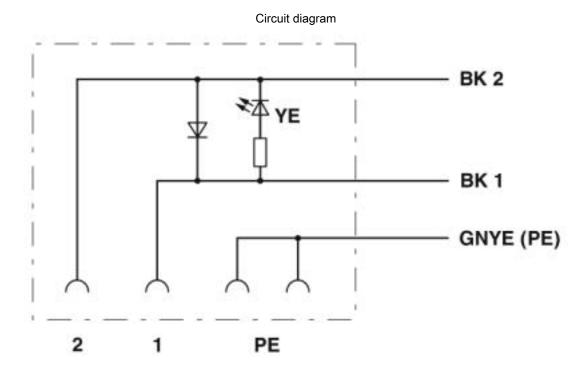
Valve connector, type A, side view

## Dimensional drawing



Valve connector, type A

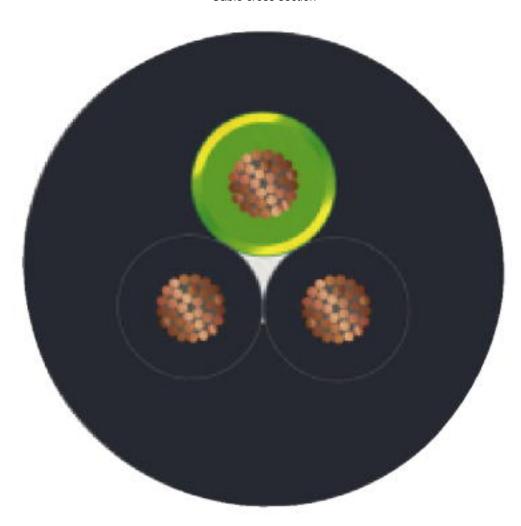




Contact assignment of the valve plug



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 |



## Classifications

## eCl@ss

| eCl@ss 8.0 | 27279218 |
|------------|----------|
| eCl@ss 9.0 | 27060312 |

## **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

CSA / CSAus / cCSAus

Ex Approvals

## Approval details

| CSA                | <b>(1)</b> | http://www.csagroup.org/services-industries/product-listing/ 13631 |      | 13631 |
|--------------------|------------|--|------|-------|
|                    |            |  |      |       |
| Nominal voltage UN |            |  | 24 V |       |
| Nominal current IN |            |  | 2 A  |       |



## Approvals

| CSAus              | <b>∰</b> °<br>US | http://www.csa | http://www.csagroup.org/services-industries/product-listing/ 13631 |  |
|--------------------|------------------|----------------|--|--|
|                    |                  |                |  |  |
| Nominal voltage UN |                  |                | 24 V   |  |
| Nominal current IN |                  |                | 2 A  |  |

| cCSAus | C Us |  |  |  |
|--------|------|--|--|--|
|--------|------|--|--|--|

### Accessories

#### Accessories

Conductor marking

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:  $1.5 \dots 35$  mm, lettering field size:  $23 \times 4$  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



## Accessories

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

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

## Mounting material

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



Fillister head screw with plastic knurl, M3 x 40

## Screwdriver tools



### Accessories

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

#### Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757



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

Stripping tool - WIREFOX SAC - 1212623



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

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

#### 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



## Accessories

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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