# SAC-3P-10,0-PUO/A-1L-Z OD - Sensor/actuator cable

1407290

https://www.phoenixcontact.com/us/products/1407290

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Sensor/actuator cable, 3-position, PUR halogen-free, black RAL 9005, free cable end, on Valve connector A, with 1 LED, Wiring: Z diode, cable length: 10 m, for outdoor applications, with stainless steel central screw and additional silicone seal (red)

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Stainless steel type 1.4404 used to provide corrosion protection for all exposed metal parts
- Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -20 °C ... +85 °C
- Convenient: increased machine availability thanks to quick and easy diagnostics

## Commercial data

| | |
|---|---|
| Item number | 1407290 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF07 |
| Product key | AF1DAA |
| GTIN | 4046356774086 |
| Weight per piece (including packing) | 461.9 g |
| Weight per piece (excluding packing) | 461.9 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Sensor/actuator cable with valve connector |
| Application | External areas |
| Number of positions | 3 |
| No. of cable outlets | 1 |
| Shielded | no |

### Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |
| Degree of pollution | 3 |

## Connection data

### Conductor connection

| | |
|---|---|
| Tightening torque | 0.6 Nm ... 0.8 Nm (0.8 Nm for IP66K) |

## Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Material grommet GRP | TPU (Seal molded) |
| | Silicon (Seal snapped in) |
| Material housing valve plug | TPU |
| Contact material | CuSn |
| Valve plug contact insert material | PA 6.6 |
| Contact surface material | Sn |

## Electrical properties

| | |
|---|---|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 24 V AC |
| | 24 V DC |
| Nominal current $I_N$ | 4 A |

### Valve connector characteristics

| | |
|---|---|
| Fixing screws | M3 x 29 |

## Signaling

| | |
|---|---|
| Status display | 1 LED |
| Status display present | yes |

## Connector

### Connection 1

| | |
|---|---|
| Type | free cable end |

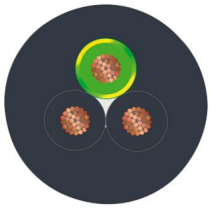
### Connection 2

| | |
|---|---|
| Type | Valve connector A |
| Number of positions | 3 |
| Material | CuSn (Contact) |
| | Sn (Contact surface) |
| | PA 6.6 (Contact carrier) |
| | TPU (Housing) |
| Protective circuit | Z diode |

## Cable/line

| | |
|---|---|
| Cable length | 10 m |

PUR halogen-free black [PUO]

| | |
|---|---|
| Dimensional drawing |  |
| Number of positions | 3 |
| Shielded | no |
| Cable type | PUR halogen-free black [PUO] |
| Conductor structure signal line | 16x 0.20 mm |
| AWG signal line | 20 |
| Conductor cross-section | 3x 0.5 mm² |
| Wire diameter incl. insulation | 2 mm ±0.05 mm |
| External cable diameter | 5.90 mm ±0.1 mm |
| Outer sheath, material | PUR |
| External sheath, color | black RAL 9005 |
| Conductor material | Tin-plated Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | black 1, black 2, green/yellow |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | ≤ 40.1 Ω/km |
| Insulation resistance | 70 GΩ*km |
| Nominal voltage, cable | 300 V |
| Test voltage Core/Core | 3000 V (Spark test) |
| Minimum bending radius, fixed installation | 10 x D |
| Minimum bending radius, flexible installation | 15 x D |
| Smallest bending radius, fixed installation | 59 mm |
| Smallest bending radius, movable installation | 89 mm |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | in accordance with EN 50267-2-1 |

| | |
|---|---|
| Resistance to oil | According to DIN EN 50306 |
| | According to DIN EN 60811-2-1, 138 h at 100°C |
| Other resistance | UV resistant |
| | hydrolysis and microbe resistant |
| | Good resistance to aggressive media |
| Ambient temperature (operation) | -40 °C ... 105 °C (cable, fixed installation) |
| | -15 °C ... 105 °C (Cable, flexible installation) |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP66K (Observe tightening torque) |
| | IP67 |
| | IP68 |
| Ambient temperature (operation) (Valve connector) | -40 °C ... 85 °C (Valve connector) |

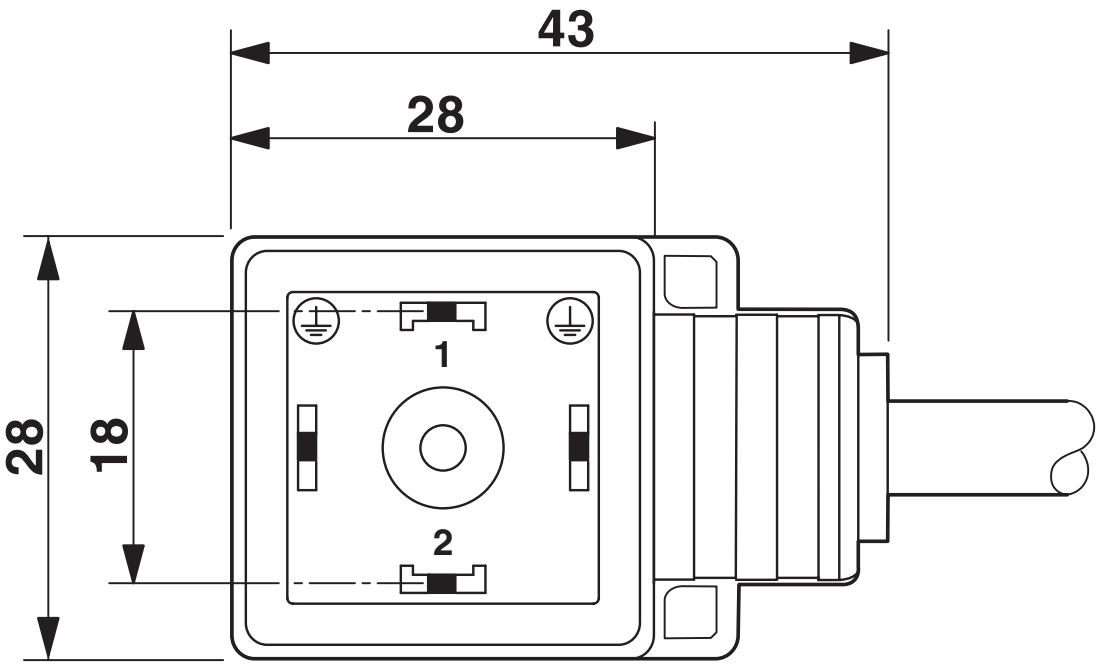
## Standards and regulations

Valve connector

| | |
|---|---|
| Standard designation | Valve connector |
| Standards/specifications | EN 175301-803 |

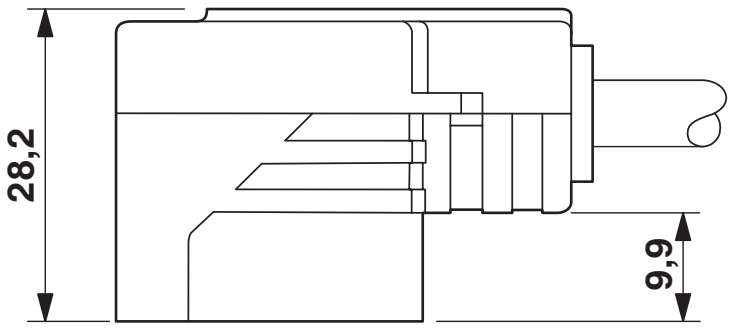
## Drawings

Dimensional drawing



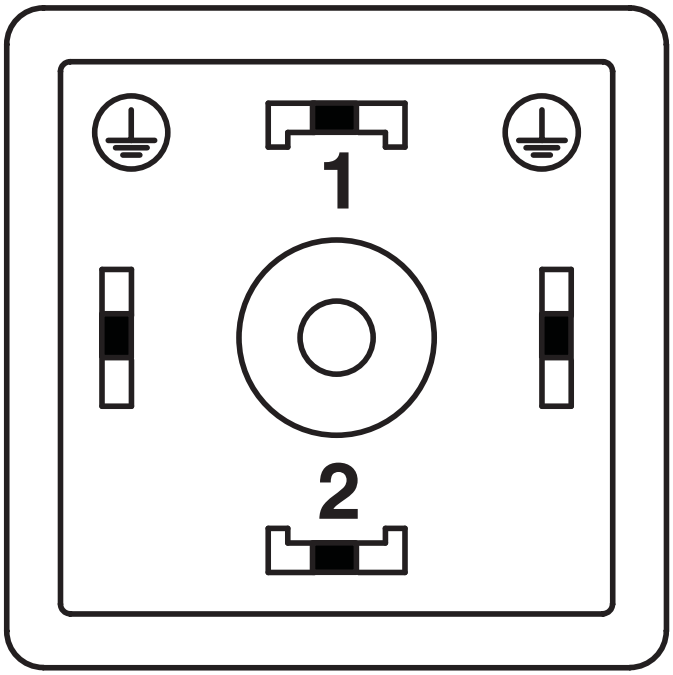

Valve connector, type A

Dimensional drawing



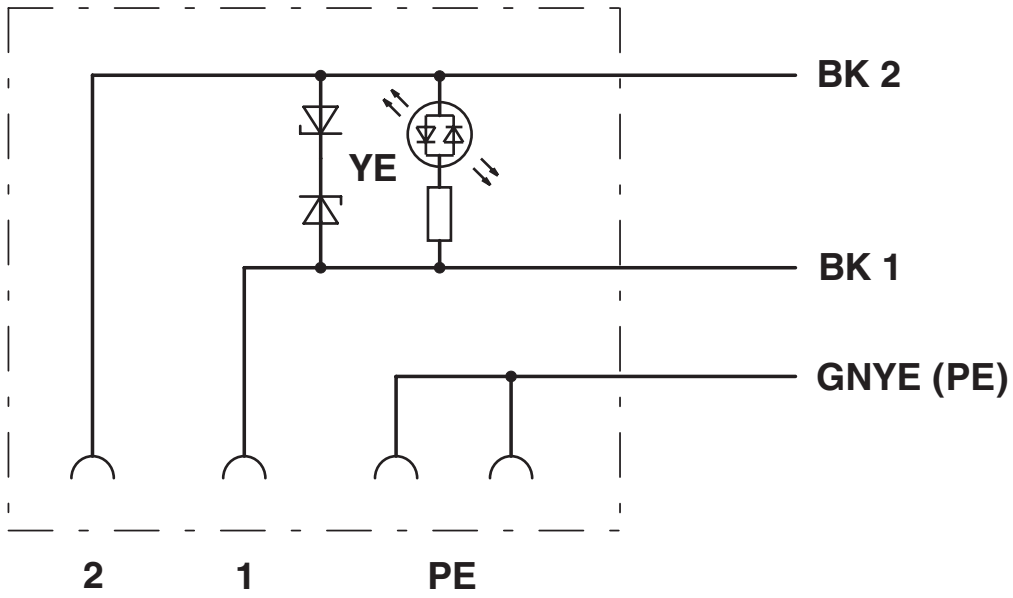

Valve connector, type A, side view

Schematic diagram




Valve connector pin assignment, type A

Circuit diagram




Contact assignment of the valve plug

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1407290

**EAC-RoHS**
Approval ID: RU D-DE.HB35.B.00387

**CSAus**
Approval ID: 13631

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 24 V | 4 A | - | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-15.0 | 27060312 |
| ECLASS-13.0 | 27060312 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001855 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 31251500 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1) |
| SCIP | f20c2e09-be54-4622-a861-7b0a8575f734 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 6.211 kg CO2e |

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