

SAC-3P-10,0-PUR/BI-1L-R-ES - Sensor/actuator cable



1401359

<https://www.phoenixcontact.com/us/products/1401359>

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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, Wiring: Freewheeling diode with holding current limiting device, cable length: 10 m, with holding current limiting device for energy reduction

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1401359 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | AF1DDA |
| GTIN | 4046356924627 |
| Weight per piece (including packing) | 320.6 g |
| Weight per piece (excluding packing) | 311 g |
| Country of origin | DE |

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Technical data

Product properties

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

Material specifications

| | |
|------------------------------------|--------|
| Seal material | TPU |
| Material housing valve plug | TPU |
| Contact material | CuSn |
| Valve plug contact insert material | PA 6.6 |
| Contact surface material | Ag |

Electrical properties

| | |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 24 V DC $\pm 20 \%$ |
| Nominal current I_N | 1 A |

Valve connector characteristics

| | |
|---------------------|---|
| Switch-over time | approx. 200 ms (Initial operating time) |
| Clock frequency | approx. 2500 Hz (Holding current limiting device) |
| Switching frequency | max. 5 Hz (Connected valve) |
| Fixing screws | M3 x 28 |

Signaling

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

Connector

Connection 1

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

Connection 2

| | |
|---------------------|---|
| Type | Valve connector BI (11 mm) |
| Number of positions | 3 |
| Material | CuSn (Contact) |
| | Ag (Contact surface) |
| | PBT (Contact carrier) |
| | TPU (Housing) |
| Protective circuit | Freewheeling diode with holding current limiting device |

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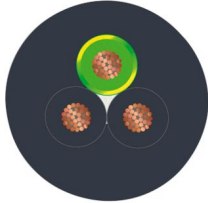
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Cable/line

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

PUR halogen-free black [PUR]

| | |
|---|---|
| Dimensional drawing |  |
| Cable weight | 30 kg/km |
| UL AWM Style | 20549 |
| Number of positions | 3 |
| Shielded | no |
| Cable type | PUR halogen-free black [PUR] |
| Conductor structure signal line | 28x 0.15 mm |
| AWG signal line | 20 |
| Conductor cross-section | 3x 0.5 mm ² |
| Wire diameter incl. insulation | 1.5 mm ±0.05 mm (Signal line) |
| External cable diameter | 4.50 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | black-gray RAL 7021 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | black 1, black 2, green/yellow |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | 39 Ω/km (at 20 °C) |
| Insulation resistance | min. 20 MΩ*km |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage | ≥ 1200 V |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 22.5 mm |
| Smallest bending radius, movable installation | 45 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 15000000, Bending radius: 50 mm, Traversing path: 0.9 m, Traversing rate: 5 m/s, Acceleration: 30 m/s ² |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Flame resistance | according to DIN VDE 0482 According to DIN EN 50265-2-1 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | largely oil-resistant |

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

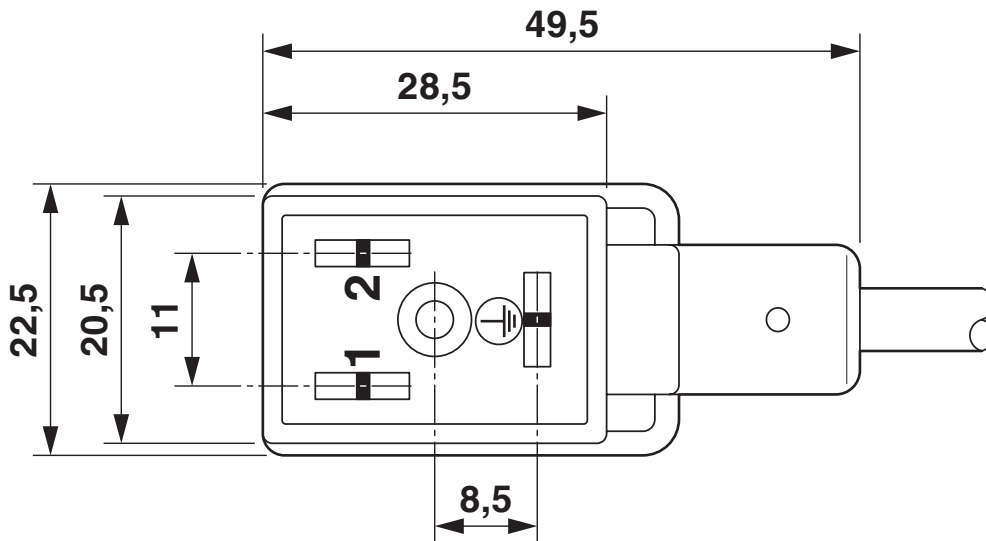
Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------------------------|
| Degree of protection | IP67 |
| Ambient temperature (operation) (Valve connector) | -25 °C ... 80 °C (Valve connector) |

Drawings

Dimensional drawing



Valve connector, type BI

Dimensional drawing



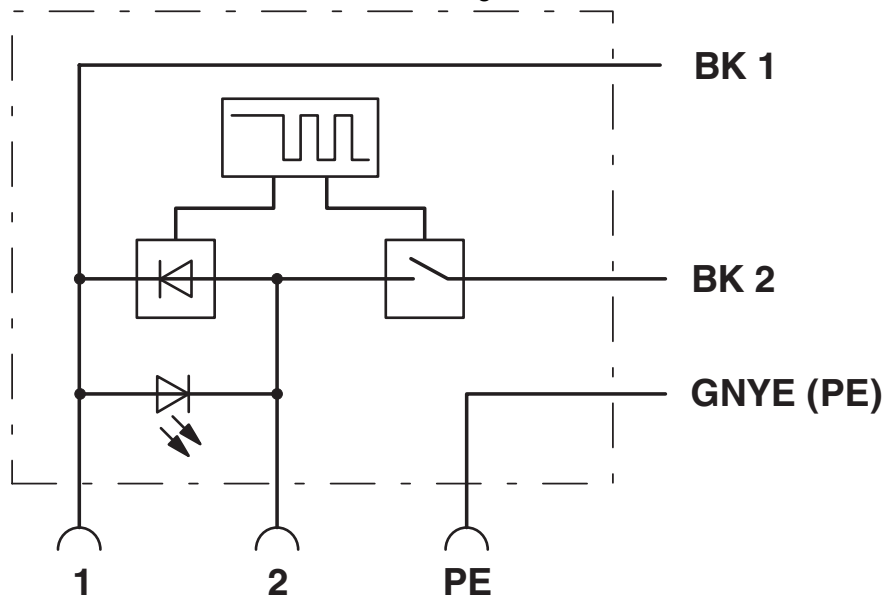
Valve connector, type BI, side view

Schematic diagram



Valve connector pin assignment, type BI

Circuit diagram



Contact assignment of the valve plug

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Classifications

ECLASS

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

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

UNSPSC

| | |
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| UNSPSC 21.0 | 31251500 |
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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com