

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



1413118

<https://www.phoenixcontact.com/us/products/1413118>

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

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1413118 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | AF1DAA |
| GTIN | 4046356995481 |
| Weight per piece (including packing) | 337.9 g |
| Weight per piece (excluding packing) | 316 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 A |
| Number of positions | 3 |
| Material | CuSn (Contact) |
| | Ag (Contact surface) |
| | PBT (Contact carrier) |
| | TPU (Housing) |
| Protective circuit | Freewheeling diode with holding current limiting device |

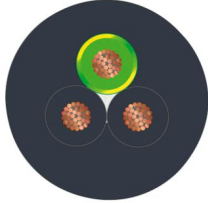
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Cable/line

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

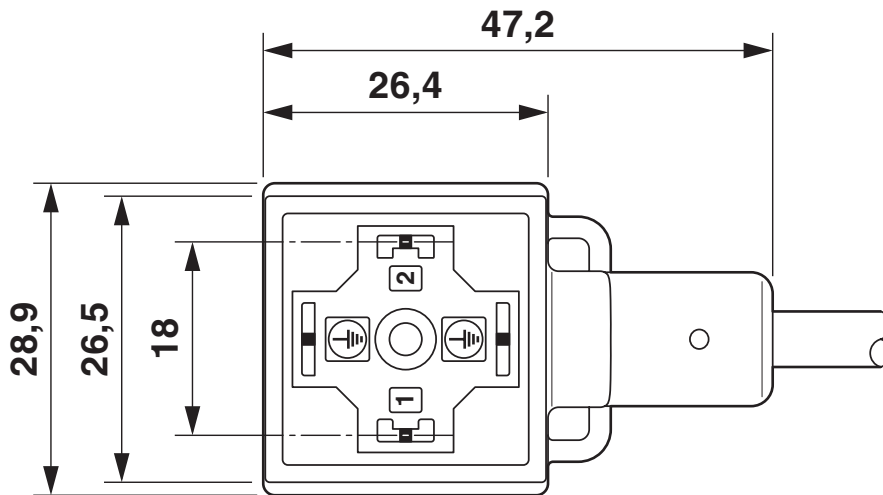
Standards and regulations

Valve connector

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

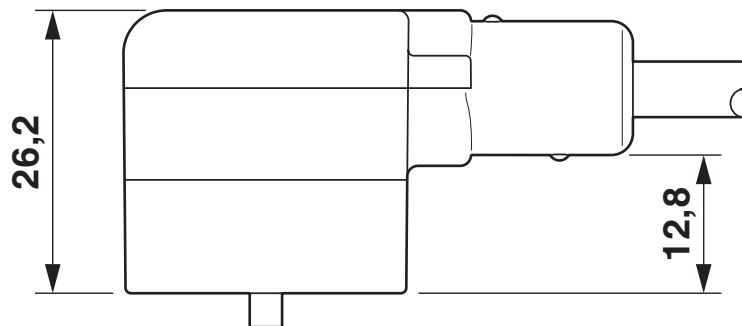
Drawings

Dimensional drawing



Valve connector, type A

Dimensional drawing

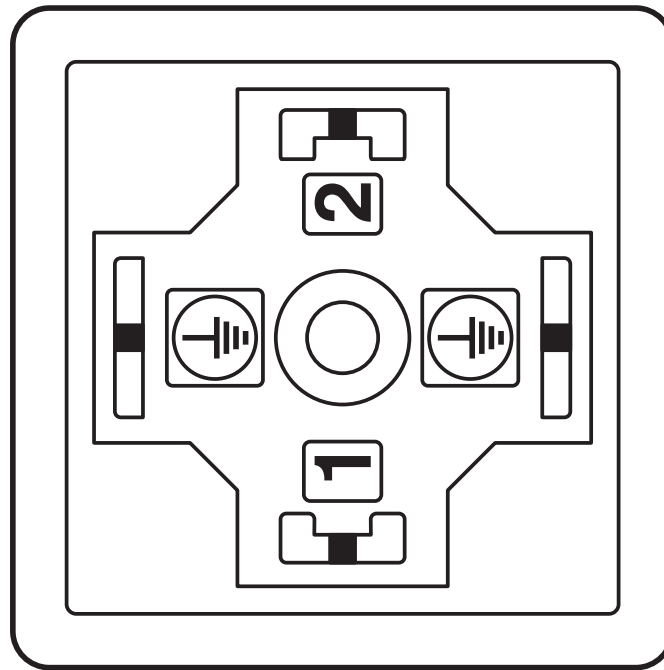


Valve connector, type A, side view

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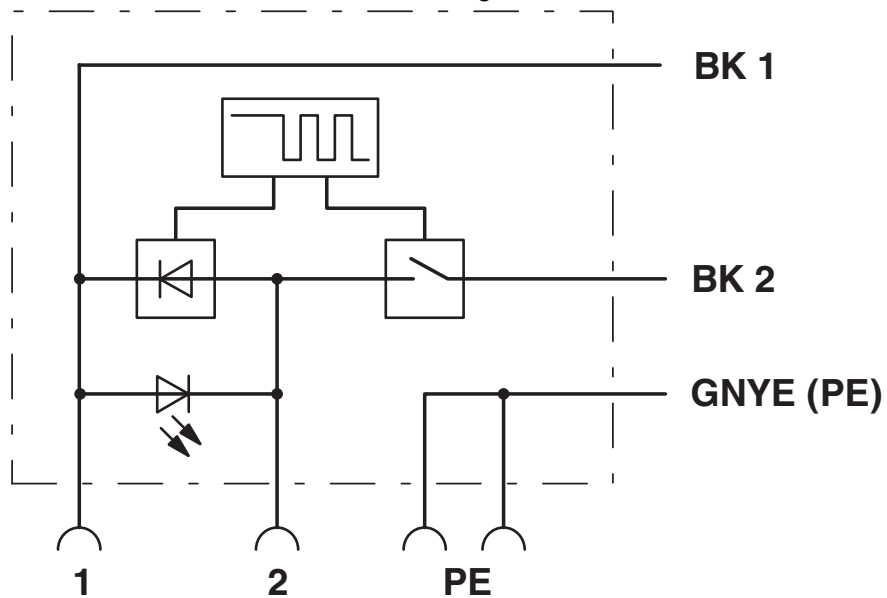
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Schematic diagram



Valve connector pin assignment, type A

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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