

SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable



1400620
<https://www.phoenixcontact.com/us/products/1400620>

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Sensor/actuator cable, 3-position, PUR halogen-free, irradiated, highly flexible, orange RAL 2003, Plug straight M12, coding: A, with 1 LED, on Valve connector A, with 1 LED, Wiring: Z diode, cable length: 1 m

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1400620 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF07 |
| Product key | AF1DJA |
| GTIN | 4046356509275 |
| Weight per piece (including packing) | 64.5 g |
| Weight per piece (excluding packing) | 64.5 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

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Technical data

Product properties

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

Insulation characteristics

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

Connection data

Conductor connection

| | |
|-------------------|--------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
| | 0.6 Nm (Valve connector) |

Material specifications

| | |
|--|------------------------------|
| Flammability rating according to UL 94 | HB |
| Seal material | TPU |
| Material housing valve plug | TPU |
| Material of grip body | TPU |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Contact material | CuSn |
| Valve plug contact insert material | PA 6.6 |
| Contact surface material | Sn |
| Material for screw connection | Zinc die-cast, nickel-plated |

Electrical properties

| | |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 24 V AC |
| | 24 V DC |
| Nominal current I_N | 4 A |

Mechanical properties

Mechanical data

| | |
|-----------------------------|----------------------------|
| Insertion/withdrawal cycles | ≥ 100 (M12 connector) |
|-----------------------------|----------------------------|

Signaling

| | |
|----------------|-------|
| Status display | 1 LED |
|----------------|-------|

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| | |
|------------------------|-----|
| Status display present | yes |
|------------------------|-----|

Connector

Connection 1

| | |
|---------------------|-------------------|
| Type | Plug straight M12 |
| Number of positions | 3 |
| Coding type | A |

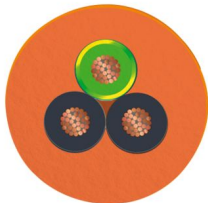
Connection 2

| | |
|---------------------|--------------------------|
| 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 | 1 m |
|--------------|-----|

PUR irradiated halogen-free orange [150]

| | |
|---------------------------------|--|
| Dimensional drawing |  |
| Cable weight | 31 kg/km |
| Number of positions | 3 |
| Shielded | no |
| Cable type | PUR irradiated halogen-free orange [150] |
| Conductor structure signal line | 28x 0.15 mm |
| AWG signal line | 20 |
| Conductor cross section | 3x 0.5 mm ² (Signal line) |
| Wire diameter incl. insulation | 1.46 mm ±0.02 mm (Signal line) |
| External cable diameter | 4.50 mm ±0.15 mm |
| Outer sheath, material | PUR |
| External sheath, color | orange RAL 2003 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | TPE-E |
| Single wire, color | black 1, black 2, green/yellow |
| Thickness, insulation | ≥ 0.21 mm (Core insulation) |

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| | |
|---|--|
| | approx. 0.60 mm (Outer cable sheath) |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | max. 39 Ω /km (at 20 °C) |
| Insulation resistance | $\geq 100 \text{ M}\Omega \cdot \text{km}$ (at 20 °C) |
| Nominal voltage, cable | $\leq 300 \text{ V}$ |
| Test voltage | $\geq 3000 \text{ V}$ |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 23 mm |
| Smallest bending radius, movable installation | 45 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 5000000, Bending radius: 45 mm, Traversing path: 10 m, Traversing rate: 3 m/s |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Flame resistance | in accordance with DIN UL-Style 20549 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Special properties | Silicone-free |
| | Irradiated |
| Ambient temperature (operation) | -25 °C ... 80 °C (cable, fixed installation) |
| | -5 °C ... 80 °C (Cable, flexible installation) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------------------------|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket) |
| Ambient temperature (operation) (Valve connector) | -20 °C ... 85 °C (Valve connector) |

Standards and regulations

M12

| | |
|--------------------------|-----------------|
| Standard designation | M12 connector |
| Standards/specifications | IEC 61076-2-101 |

Valve connector

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

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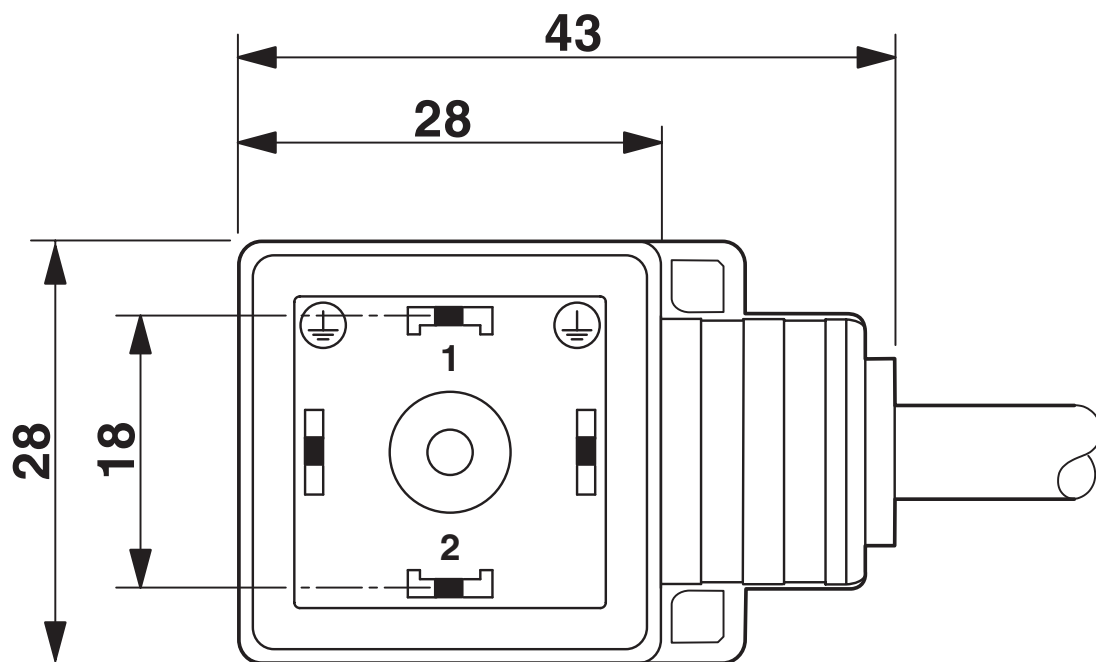
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing

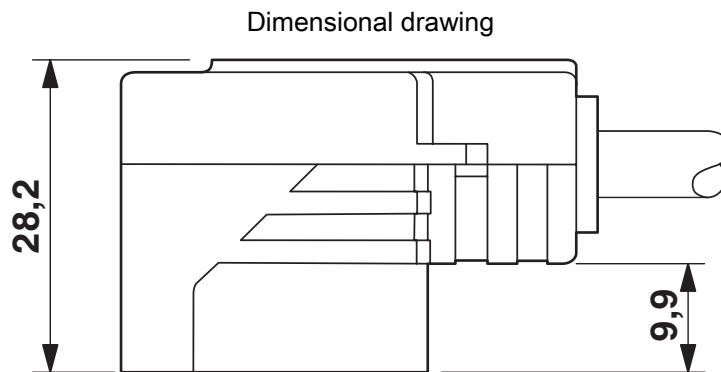


Valve connector, type A

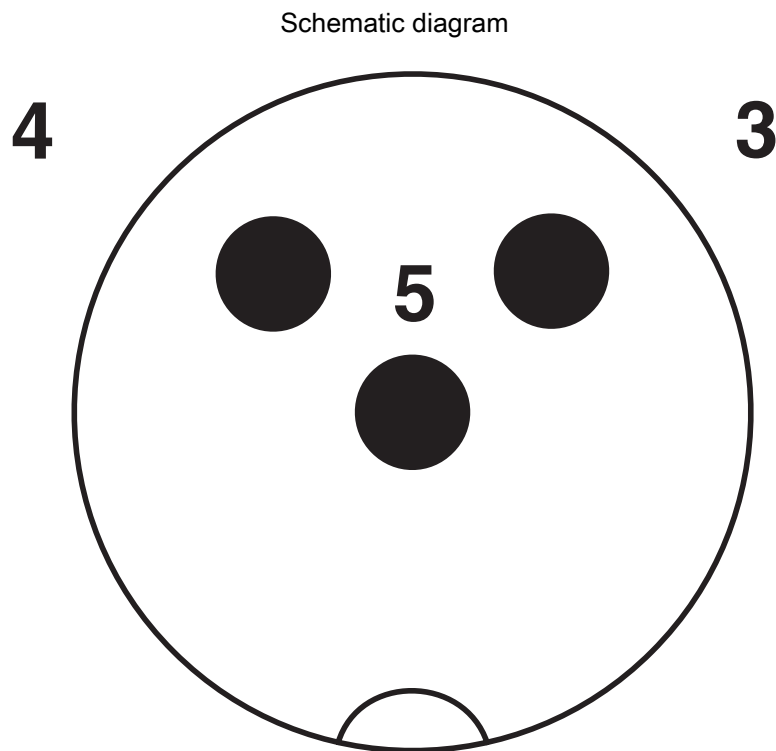
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Valve connector, type A, side view



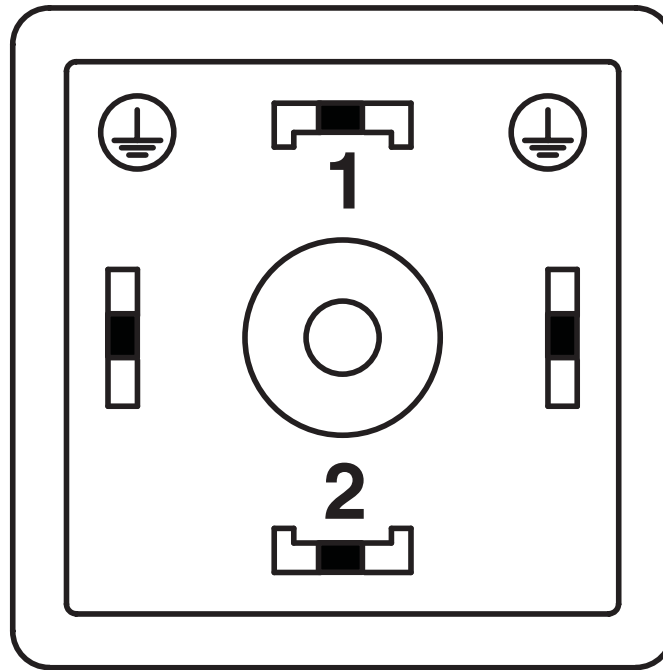
Pin assignment M12 plug, 3-pos., valve connector

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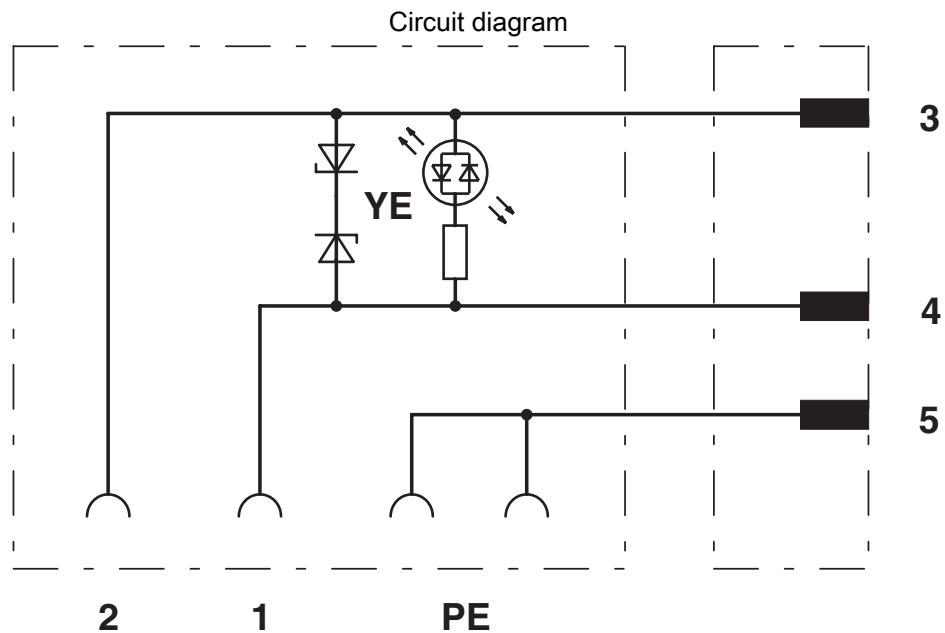
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Schematic diagram



Valve connector pin assignment, type A



Contact assignment of M12 plug and valve connector

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Classifications

ECLASS

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

UNSPSC

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|-------------|----------|
| UNSPSC 21.0 | 31251501 |
|-------------|----------|

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