

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



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)
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### 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
Nominal current $I_N$	24 V DC 4 A

### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	$\geq 100$ (M12 connector)

### Signaling

Status display	1 LED
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Status display present	yes
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## Connector

### Connection 1

Type	Plug straight M12
Number of positions	3
Coding type	A

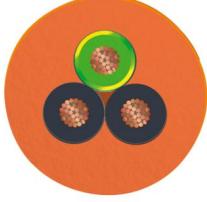
### Connection 2

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
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### 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 <sup>2</sup> (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 $\Omega$ /km (at 20 °C)
Insulation resistance	$\geq 100 \text{ M}\Omega\text{-km}$ (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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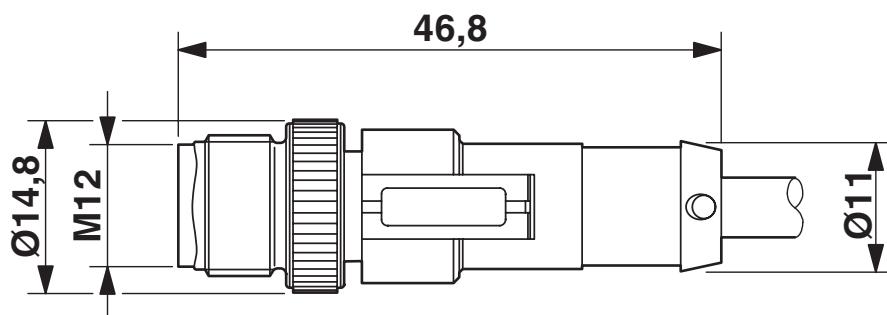


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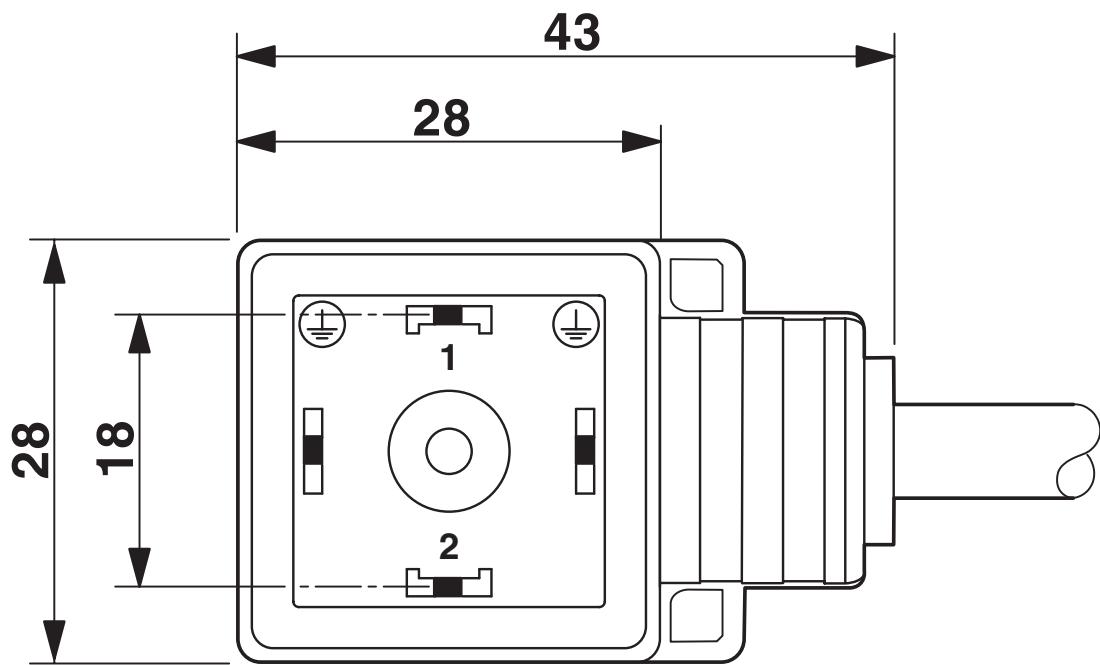
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Valve connector, type A

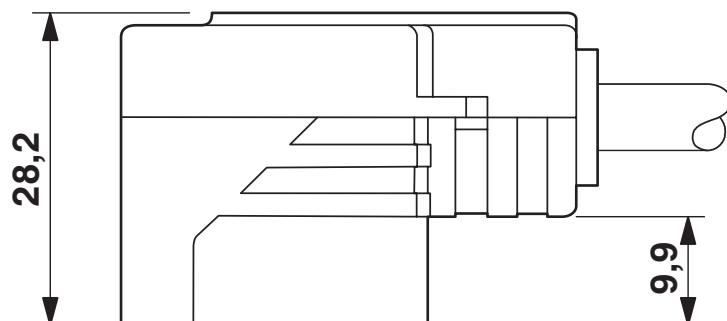
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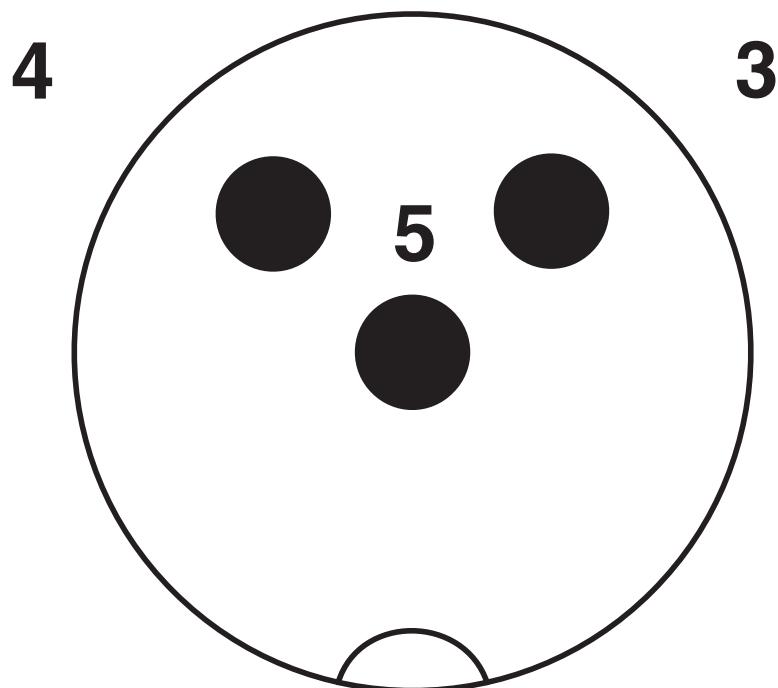
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Dimensional drawing



Valve connector, type A, side view

Schematic diagram



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

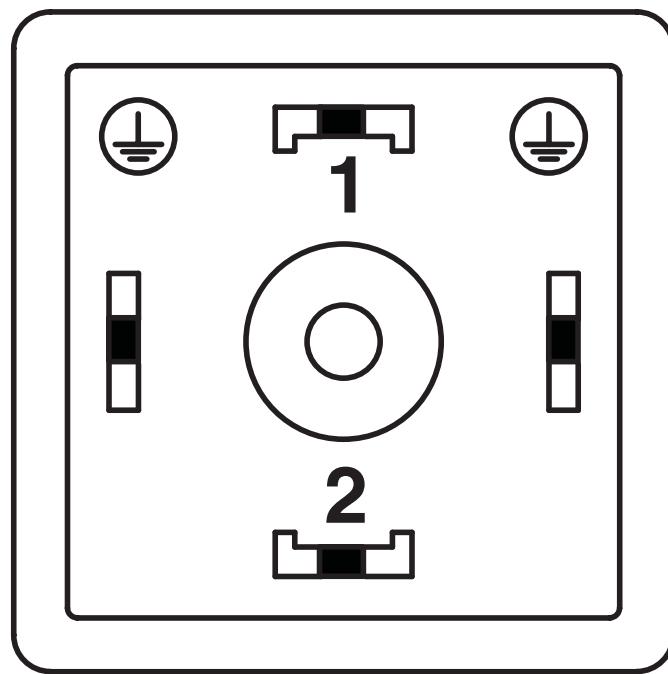
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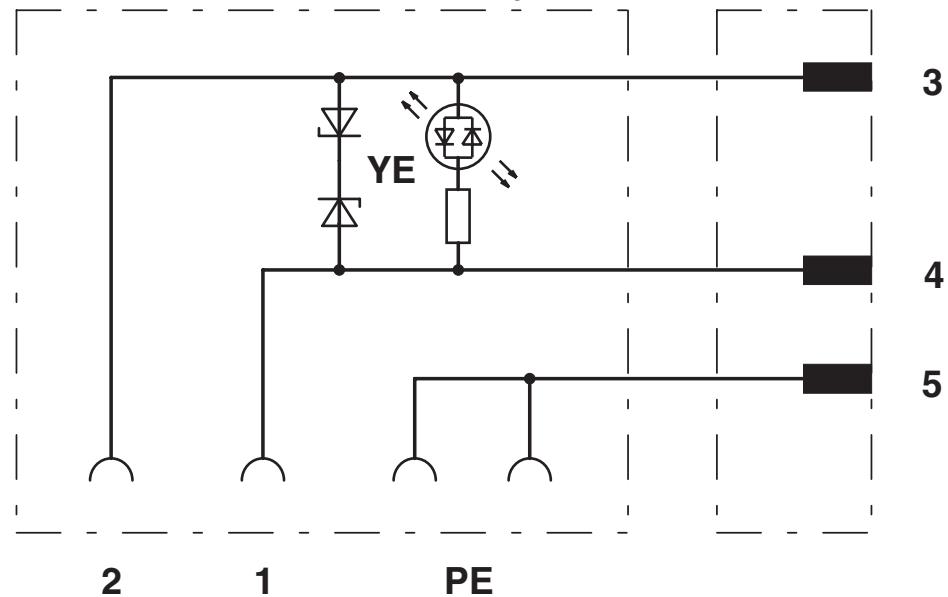
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Schematic diagram



Valve connector pin assignment, type A

Circuit diagram



Contact assignment of M12 plug and valve connector

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## Classifications

### ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

### UNSPSC

UNSPSC 21.0	31251501
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