

# SAC-3P-M8MS/0,45-PUR/BI-1L-Z - Sensor/actuator cable



1420744

<https://www.phoenixcontact.com/us/products/1420744>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, coding: A, on Valve connector BI (11 mm), with 1 LED, Wiring: Z diode, cable length: 0.45 m

## Commercial data

Item number	1420744
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	AF1DNA
GTIN	4055626233925
Weight per piece (including packing)	38.2 g
Weight per piece (excluding packing)	38.2 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Sensor/actuator cable with valve connector
Application	Standard
Number of positions	3
Shielded	no
Coding	A

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Material specifications

Flammability rating according to UL 94	HB
Seal material	TPU
Material housing valve plug	TPU
Material of grip body	TPU, hardly inflammable, self-extinguishing
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

Nominal voltage $U_N$	24 V AC
	24 V DC
Nominal current $I_N$	4 A

### Signaling

Status display	1 LED
Status display present	yes

### Connector

#### Connection 1

Type	Plug straight M8
Coding type	A

#### Connection 2

Type	Valve connector BI (11 mm)
Material	CuSn (Contact)
	Sn (Contact surface)

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	PA 6.6 (Contact carrier)
	TPU (Housing)
Protective circuit	Z diode

## Cable/line

Cable length	0.45 m
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PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	23 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross-section	3x 0.34 mm <sup>2</sup> (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
External cable diameter	3.85 mm ±0.15 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	brown, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation) approx. 0.50 mm (Outer cable sheath)
Overall twist	3 wires, twisted
Max. conductor resistance	max. 58 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Smallest bending radius, fixed installation	19 mm
Smallest bending radius, movable installation	38 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 38 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥5000000, Torsional frequency: 35 cycles/min.

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Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2 DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents hydrolysis and microbe resistant partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable Silicone-free Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -25 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65 IP67
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## Standards and regulations

### M8

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

### Valve connector

Standard designation	Valve connector
Standards/specifications	EN 175301-803

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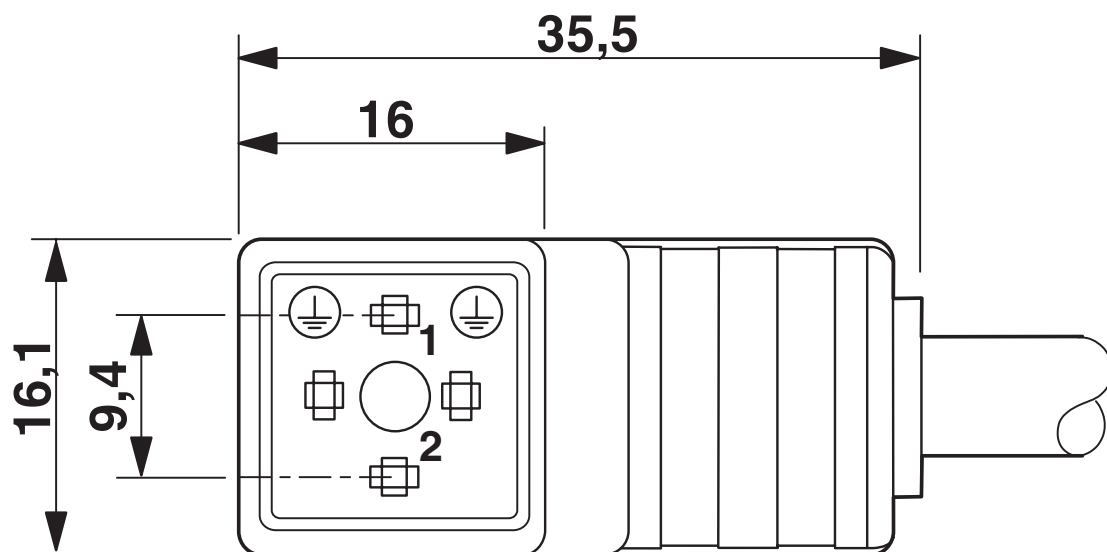
## Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



Valve connector, type BI

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Schematic diagram



Pin assignment M8 male connector, 3-pos.

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## Classifications

### ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

### UNSPSC

UNSPSC 21.0	31251501
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