

## Sensor/actuator cable - SAC-2P-M8MS/1,5-PUR/BI-1L-Z180 - 1237023

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Sensor/actuator cable, 2-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, on Valve connector BI (11 mm), with 1 LED, connected with Z diode, cable length: 1.5 m, 180° version

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Robust valve connector with Zener diode as protective circuit
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics
- ✓ Flexible solutions - configurable materials with variable cable types and cable lengths



### Key Commercial Data

Packing unit	1
GTIN	 4 063151 344573
GTIN	4063151344573
Custom tariff number	85444290

### Technical data

#### Dimensions

Length of cable	1.5 m
Central screw valve connector	M3 x 29

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 85 °C (valve plug)
	-25 °C ... 90 °C (Plug / socket)
Degree of protection	IP65

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## Technical data

### Ambient conditions

	IP67
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### General

Rated current at 40°C	4 A
Rated voltage	24 V AC
	24 V DC
Number of positions	2
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M8 connector IEC 61076-2-104
	Valve connector EN 175301-803
Status display	1 LED
Protective circuit/component	Z diode
Pulse power $W_{max}$	40 W (at 100 μs square-wave pulse)
Terminal voltage	70 V (at 2 mA constant current)
Reverse voltage	50 V
Insertion/withdrawal cycles	≥ 100 (M8 connectors)

### Material

Flammability rating according to UL 94	HB
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU, hardly inflammable, self-extinguishing
Valve plug contact material	CuSn
Valve plug contact surface material	Sn
Valve plug contact insert material	PA 6.6
Material housing valve plug	TPU
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	TPU (Seal molded)

### Standards and Regulations

Standards/specifications	M8 connector IEC 61076-2-104
	Valve connector EN 175301-803
Flammability rating according to UL 94	HB

### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR

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### Technical data

#### Cable

Cable abbreviation	Li9Y11Y
UL AWM style	20549
Conductor cross section	3x 0.34 mm <sup>2</sup> (Signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
	approx. 0.5 mm (Outer cable sheath)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
External sheath, color	black-gray RAL 7021
External cable diameter D	3.85 mm ±0.15 mm
Smallest bending radius, fixed installation	19 mm
Smallest bending radius, movable installation	38 mm
Number of bending cycles	10000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	23 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Conductor resistance	max. 58 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
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
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	in accordance with DIN EN 60811-2-1

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## Technical data

### Cable

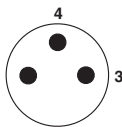
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (cable, flexible installation)

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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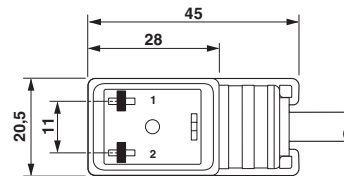
## Drawings

Schematic diagram



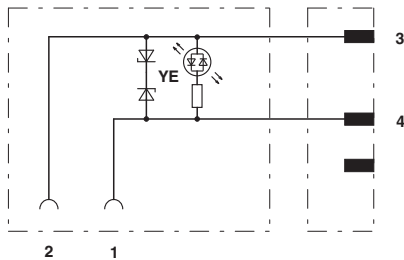
Pin assignment M8 plug, 3-pos., view male side

Dimensional drawing



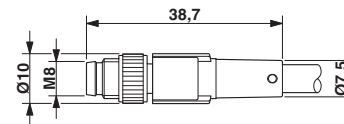
Valve connector, type BI

Circuit diagram



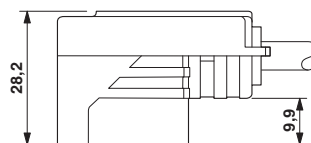
Contact assignment of the M8 plug and the valve connector

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



Valve connector, type BI, side view

## Sensor/actuator cable - SAC-2P-M8MS/1,5-PUR/BI-1L-Z180 - 1237023

### Classifications

eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 11.0	27060311
eCl@ss 9.0	27060311