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Sensor/actuator cable - SAC-3P-M12MS/5,0-PUR/BI-1L-Z

1438477

https://www.phoenixcontact.com/gb/products/1438477

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on Valve connector BI (11 mm), with 1 LED, connected with Z diode, cable length: 5 m

Commercial Data

Item number	1438477
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	BF1DMA
Product Key	BF1DMA
GTIN	4046356496599
Weight per Piece (including packing)	177.3 g
Weight per Piece (excluding packing)	169.7 g
Customs tariff number	85444290
Country of origin	PL

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Technical Data

Product properties

Number of positions	3
No. of cable outlets	1
Shielded	no
Coding	A - standard

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	24 V AC
	24 V DC
Nominal current I_N	4 A
Protective circuit	Z diode

LED signaling

Status display	1 LED
Status display present	yes

Material specifications

Flammability rating according to UL 94	HB
Sealing material	TPU (Seal molded)
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
Cable gland material	Zinc die-cast, nickel-plated

Connector

Insertion/withdrawal cycles	≥ 100

Header 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	A

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Head 2

Head design	Valve connector
Head thread type	BI (11 mm)
Status indicator head	1 LED

Cable / line

Cable length	5 m
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 mm²
Wire diameter incl. insulation	1.5 mm ±0.05 mm (Signal line)
External cable diameter	4.5 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
Smallest bending radius, fixed installation	22.5 mm
Max. bending cycles	15000000
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
	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)

Cable structure

Cable type	PUR halogen-free black
External cable diameter	4.50 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires

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Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Single wire, color	black 1, black 2, green/yellow
Overall twist	3 concentrically twisted wires

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 85 °C (valve plug)
	-40 °C ... 80 °C (cable, fixed installation)
	-15 °C ... 80 °C (Cable, flexible installation)

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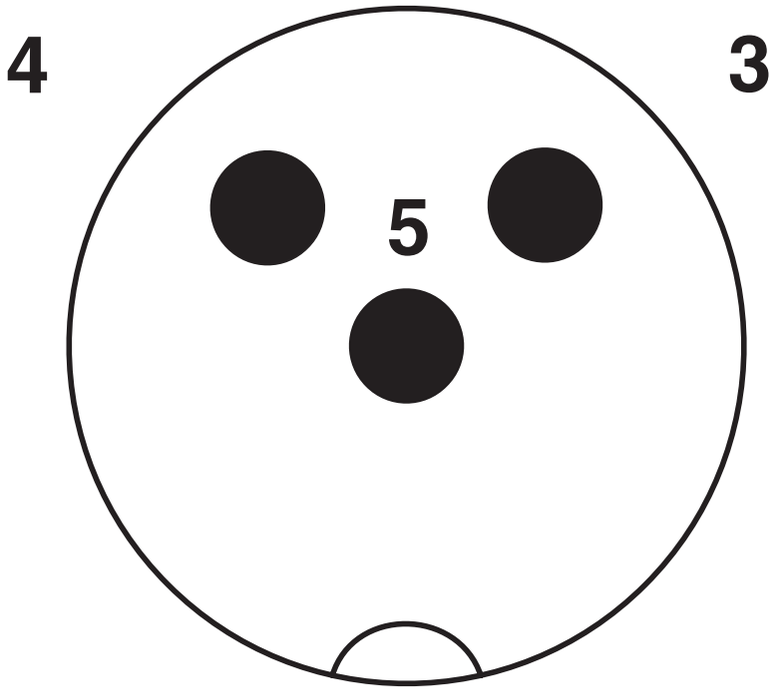
Sensor/actuator cable - SAC-3P-M12MS/5,0-PUR/BI-1L-Z

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Drawings

Schematic diagram



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

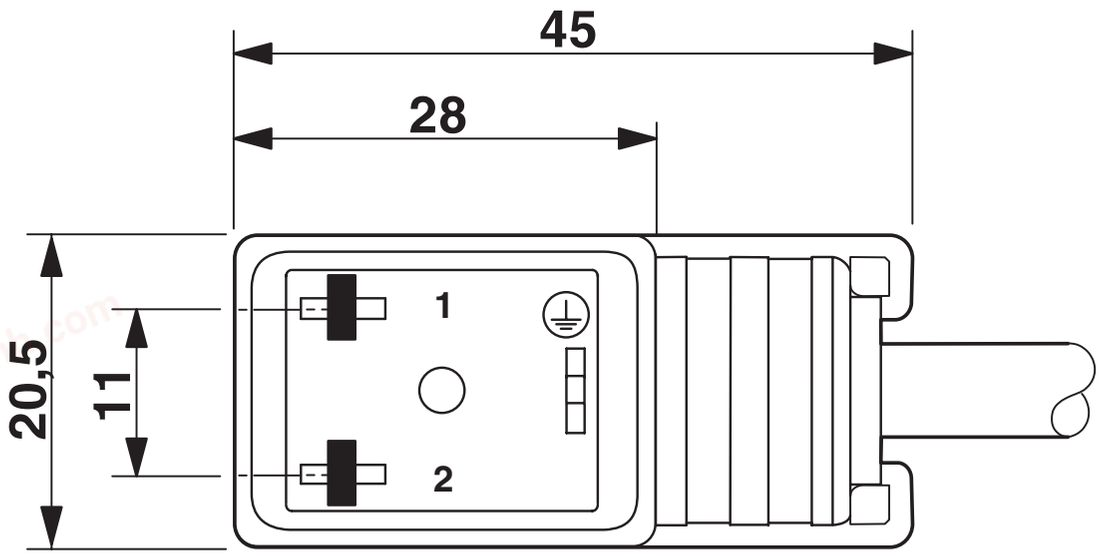
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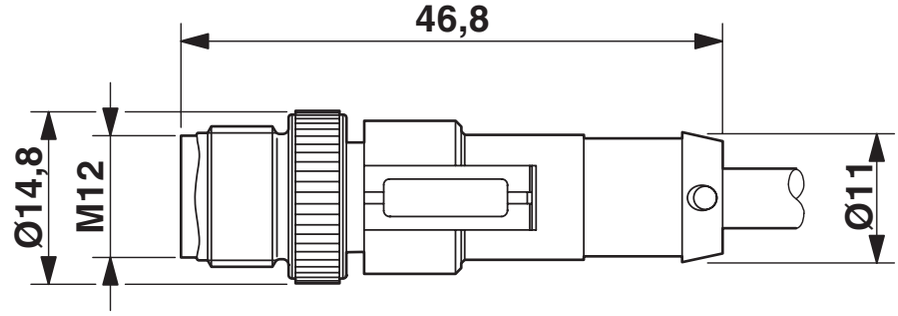
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Dimensional drawing



Valve connector, type BI

Dimensional drawing



Plug, M12 x 1, straight, shielded

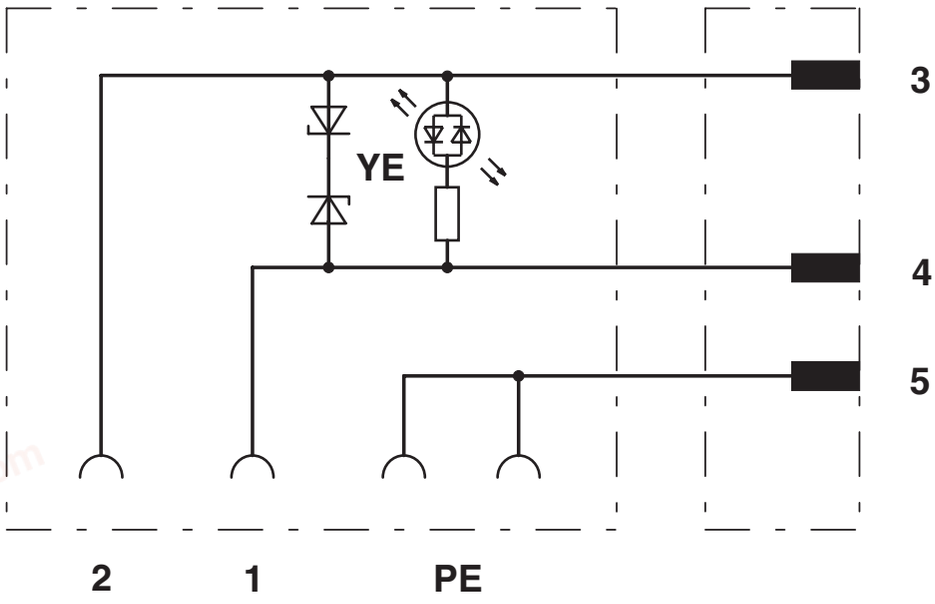
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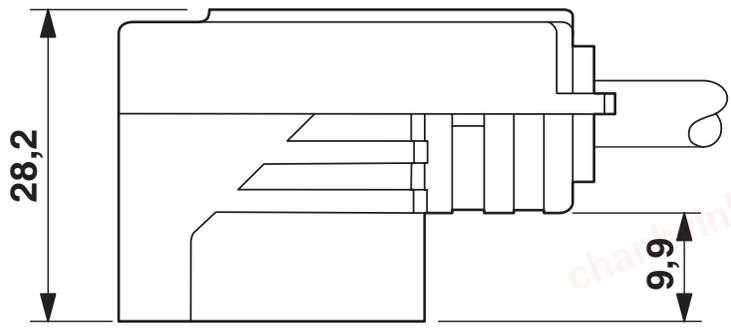
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Circuit diagram



Contact assignment of M12 plug and valve connector

Dimensional drawing



Valve connector, type BI, side view

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Approvals

EAC

CSAus

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	24 V	4 A	-	-

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Classifications

ECLASS

ECLASS-9.0	27060312
ECLASS-10.0.1	27060312
ECLASS-11.0	27060312

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	31251500

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Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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Accessories

Screw

Screw - SAC-V-SCREW-M3-29 KNURL - 1403779

https://www.phoenixcontact.com/gb/products/1403779



Fillister head screw with plastic knurl, M3 x 40

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