

SAC-3P-M12MS/0,6-PUR/B-1L-Z180 - Sensor/actuator cable



1400686

<https://www.phoenixcontact.com/us/products/1400686>

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Sensor/actuator cable, 3-position, Plug straight M12, coding: A, with 1 LED, on Valve connector B (10 mm), with 1 LED, Wiring: Z diode, cable length: 0.6 m, Customer version, 180° version

Commercial data

Item number	1400686
Packing unit	1 pc
Minimum order quantity	5 pc
Note	Made to order (non-returnable)
Sales key	BF07
Product key	AF1DLA
GTIN	4046356511773
Weight per piece (including packing)	47.8 g
Weight per piece (excluding packing)	45.4 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
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Seal material	TPU
Material housing valve plug	PBT
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	PBT
Contact surface material	Ag
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
Protective circuit	Surge protection

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Signaling

Status display	1 LED
Status display present	yes

Connector

Connection 1

Type	Plug straight M12
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Number of positions	3
Coding type	A

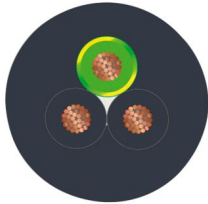
Connection 2

Type	Valve connector B (10 mm)
Number of positions	3
Material	CuSn (Contact)
	Ag (Contact surface)
	PBT (Contact carrier)
	PBT (Housing)
Protective circuit	Z diode

Cable/line

Cable length	0.6 m
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PUR halogen-free black [PUR]

Dimensional drawing	
Shielded	no
UL AWM Style	20549
Cable weight	30 kg/km
Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
External cable diameter	4.50 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross-section	3x 0.5 mm ²
Material wire insulation	PP
Wire diameter incl. insulation	1.5 mm ±0.05 mm (Signal line)
Single wire, color	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 1200 V
Cable resistance	39 Ω/km (at 20 °C)
Cable insulation resistance	min. 20 MΩ*km
Minimum bending radius, fixed installation	5 x D

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Minimum bending radius, flexible installation	10 x D
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s ²
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	in accordance with DIN EN 60811-2-1
Flame resistance	according to DIN VDE 0482 According to DIN EN 50265-2-1
Other resistance	largely oil-resistant partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Ambient temperature (operation)	-20 °C ... 80 °C (Cable, flexible installation) -40 °C ... 80 °C (cable, fixed installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket) -20 °C ... 80 °C (Valve connector) -30 °C ... 80 °C (cable, fixed installation) -5 °C ... 70 °C (Cable, flexible installation)

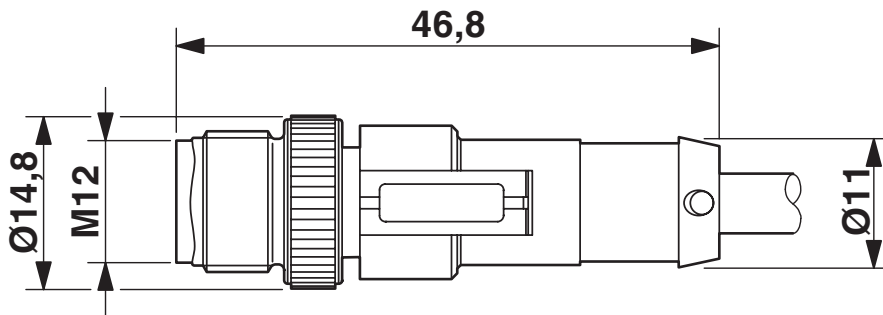
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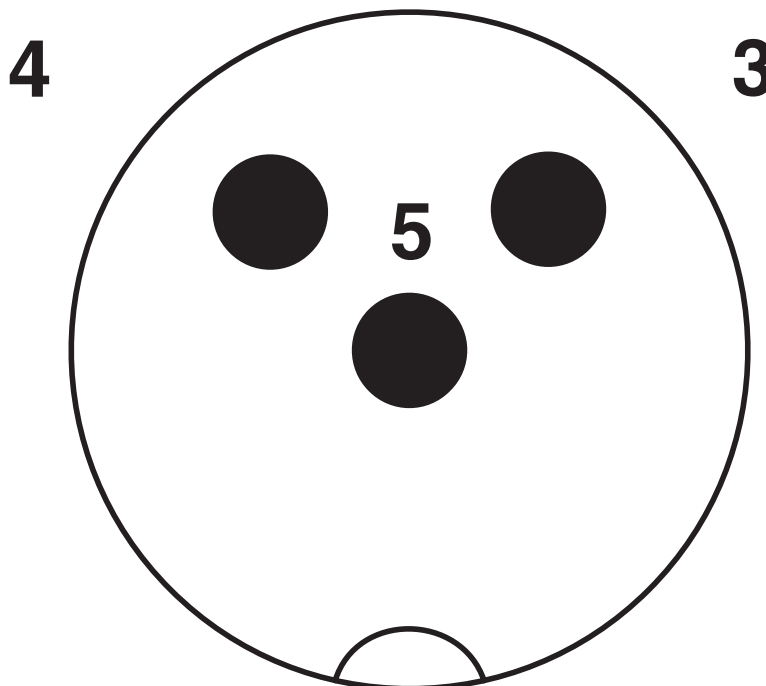
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram

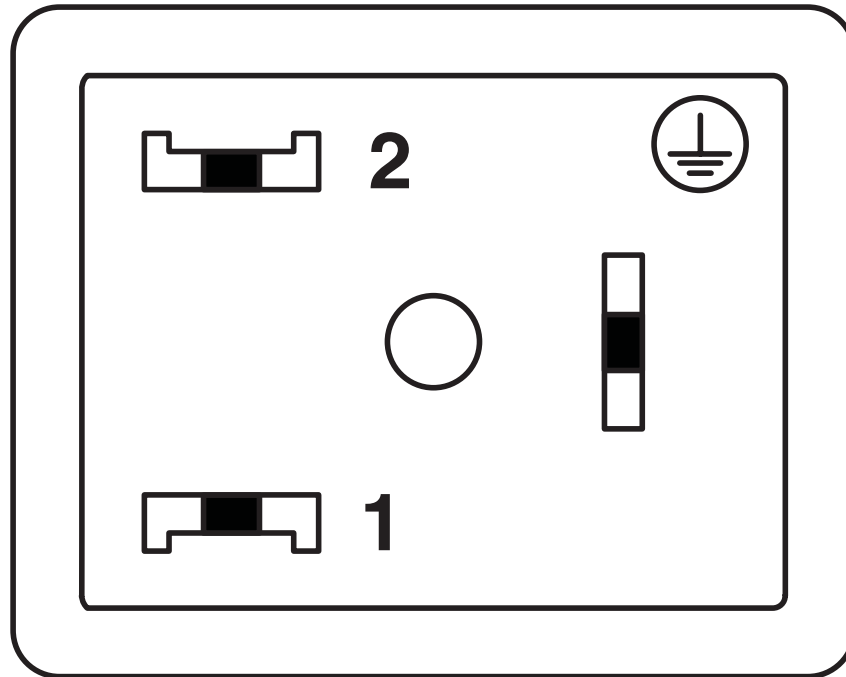


Pin assignment M12, 3-pos.

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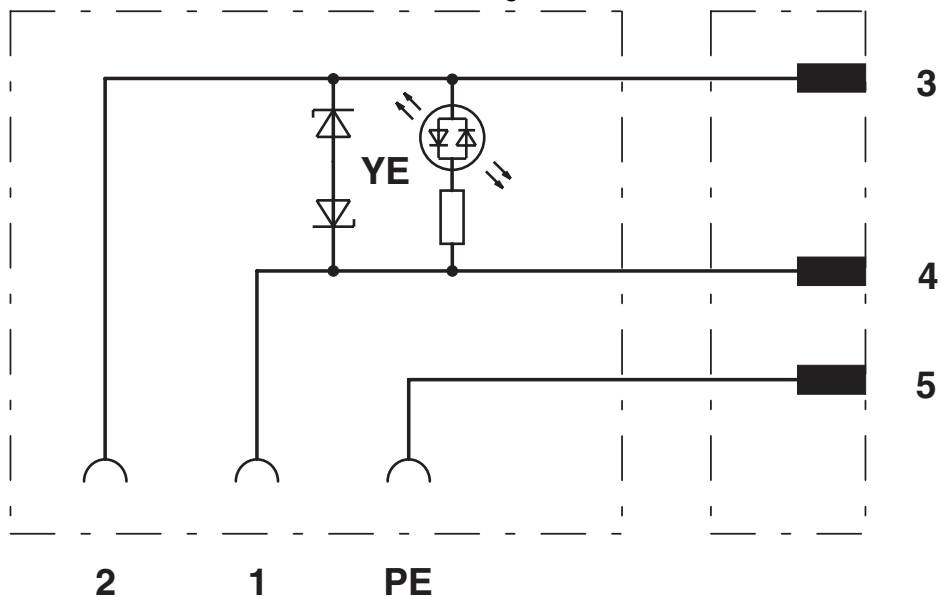
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Schematic diagram



Valve connector pin assignment, type B

Circuit diagram



Contact assignment

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1400686>

 UL Listed Approval ID: FILE E 221474				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	60 V	4 A	-	-

 cUL Listed Approval ID: FILE E 221474				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	60 V	4 A	-	-

 EAC-RoHS Approval ID: RU D-DE.HB35.B.00387	
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Classifications

ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

ETIM

ETIM 10.0	EC001855
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UNSPSC

UNSPSC 21.0	31251500
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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