

# Sensor/actuator cable - SAC-3P-M12MS/1,5-PUR/A-1L-S VW



1694004

<https://www.phoenixcontact.com/us/products/1694004>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on Valve connector A, with 1 LED, connected with Z diode, cable length: 1.5 m

## Commercial Data

Item number	1694004
Packing unit	1 pc
Minimum order quantity	5 pc
Note	Made to Order (non-returnable)
Sales Key	00
Product Key	BF1DJA
GTIN	4017918481667
Weight per Piece (including packing)	113.9 g
Weight per Piece (excluding packing)	113.9 g
Customs tariff number	85444290
Country of origin	DE

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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 - standard

### Material specifications

Sealing material	TPU (Flat gasket valve plug)
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

### Electrical properties

Rated voltage (III/3)	24 V AC/DC
Nominal voltage $U_N$	24 V AC
	24 V DC
Nominal current $I_N$	4 A

### LED signaling

Status display	1 LED
Status display present	yes

### Connector

Insertion/withdrawal cycles	$\geq 100$
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#### Connection 1

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

#### Connection 2

Head design	Valve connector
Head thread type	A
Status indicator head	1 LED

### Cable / line

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Cable length	1.5 m
PUR halogen-free black [PUR]	
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 mm <sup>2</sup>
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
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
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)

## Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-30 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 70 °C (Cable, flexible installation)

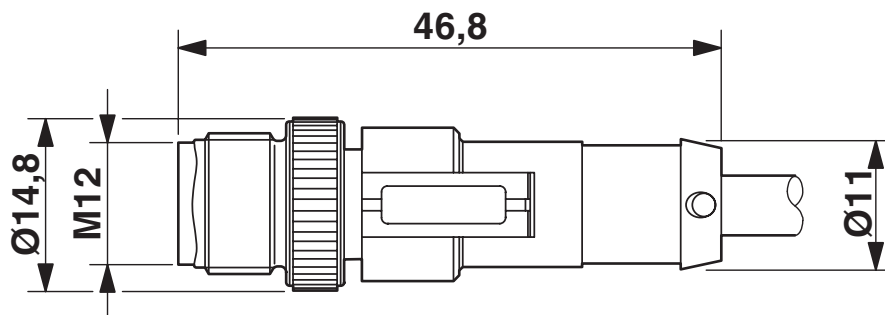
# Sensor/actuator cable - SAC-3P-M12MS/1,5-PUR/A-1L-S VW

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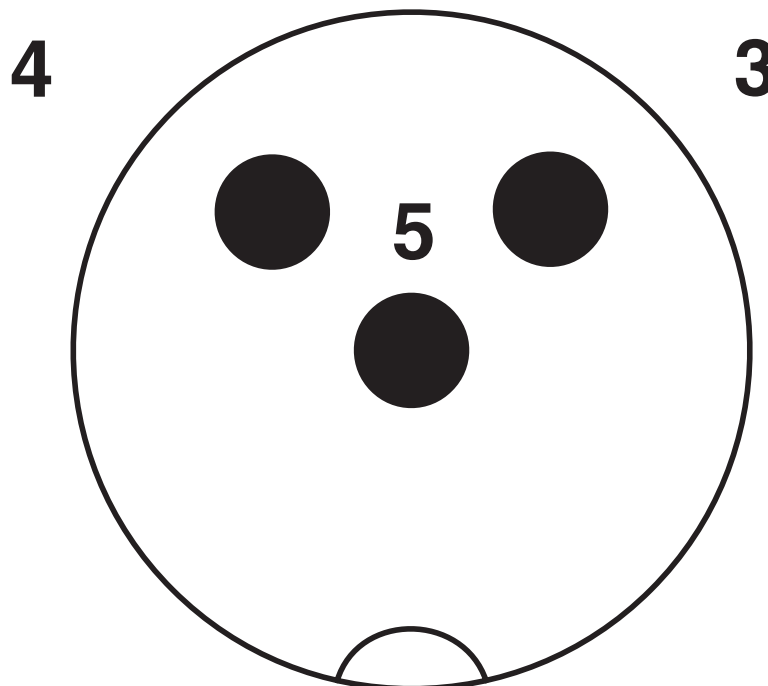
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



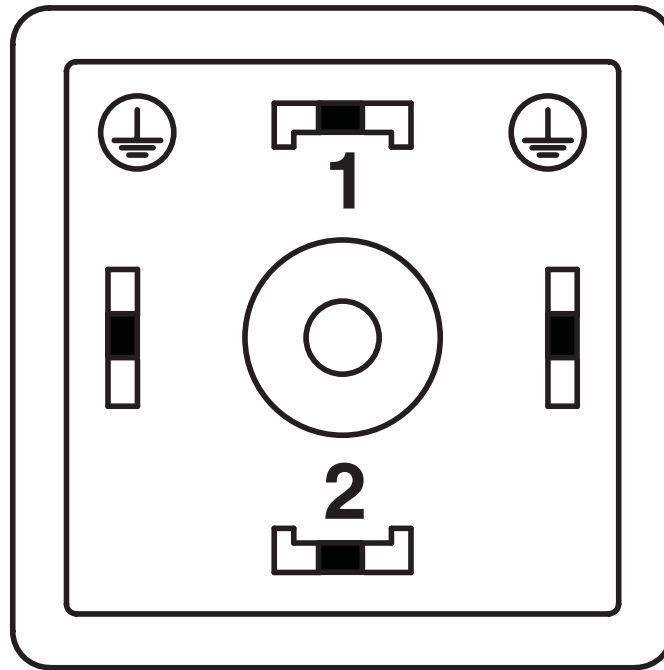
Pin assignment M12 plug, 3-pos., A-coded, view male side

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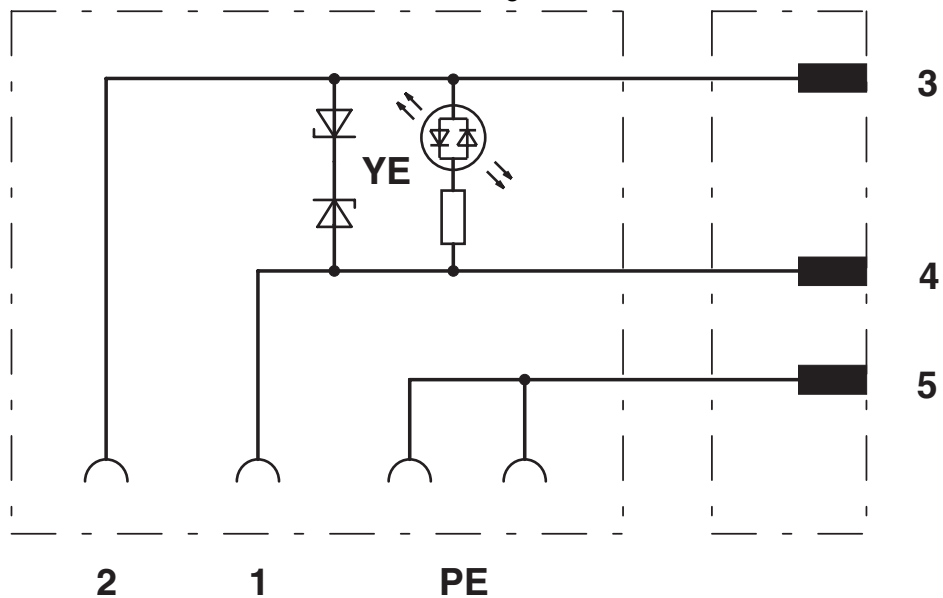
<https://www.phoenixcontact.com/us/products/1694004>

Schematic diagram



Pin assignment, valve plug

Circuit diagram

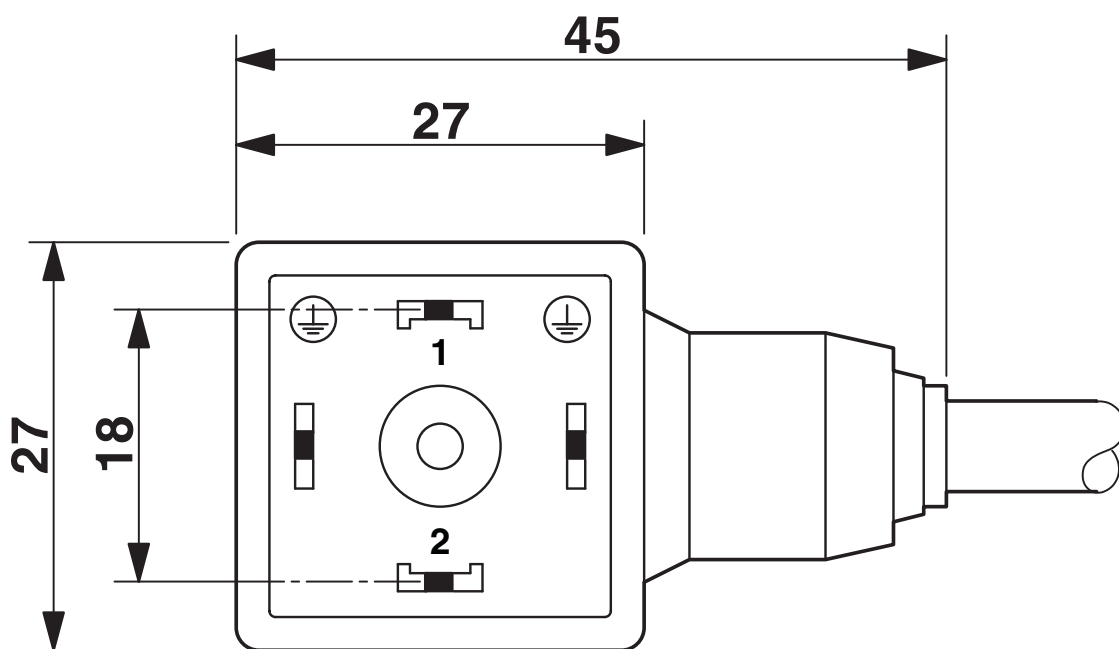


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Dimensional drawing



Valve connector, type A

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## Classifications

### ECLASS

ECLASS-9.0	27060312
ECLASS-11.0	27060312

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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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