

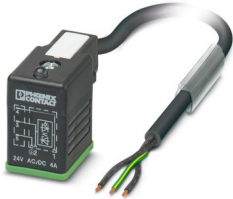
# SAC-3P- 5,0-PUR/B-1L-S - Sensor/actuator cable



1683824

<https://www.phoenixcontact.com/us/products/1683824>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector B (10 mm), coding: A, with 1 LED, Wiring: Z diode, cable length: 5 m

## Commercial data

Item number	1683824
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	AF1DCA
GTIN	4017918185916
Weight per piece (including packing)	279.3 g
Weight per piece (excluding packing)	277.8 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

### 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
Contact material	CuSn
Valve plug contact insert material	PBT
Contact surface material	Ag

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	24 V
Nominal current $I_N$	4 A

### Signaling

Status display	1 LED
Status display present	yes

### Connector

#### Connection 1

Type	free cable end
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#### Connection 2

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

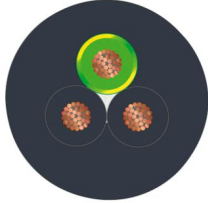
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## Cable/line

Cable length	5 m
PUR halogen-free black [PUR]	
Dimensional drawing	
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	4.50 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
Smallest bending radius, movable installation	45 mm
Dynamic load capacity (bending)	Max. bending cycles: 15000000, Bending radius: 50 mm, Traversing path: 0.9 m, Traversing rate: 5 m/s, Acceleration: 30 m/s <sup>2</sup>
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

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	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)

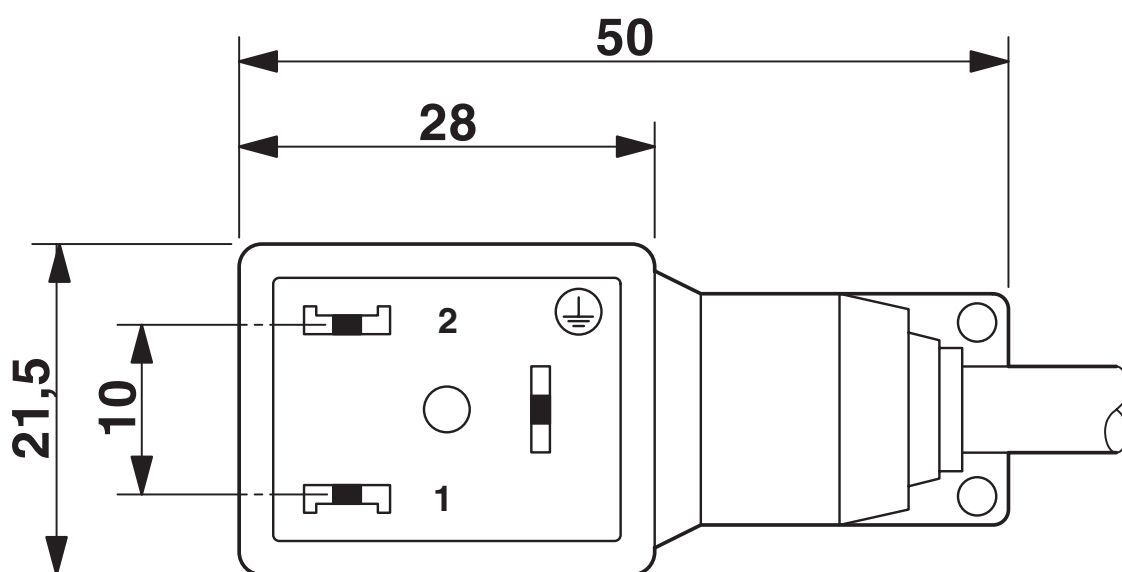
## Environmental and real-life conditions

### Ambient conditions

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

Drawings

Dimensional drawing



Valve connector, type B

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Schematic diagram



Valve connector pin assignment, type B

Circuit diagram



Contact assignment of the valve plug

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## Classifications

### ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

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## Environmental product compliance

### 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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