

# SAC-3P-3,0-280/A-1L-Z - Sensor/actuator cable



1438422

<https://www.phoenixcontact.com/us/products/1438422>

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Sensor/actuator cable, 3-position, PUR halogen-free, gray RAL 7001, free cable end, on Valve connector A, with 1 LED, Wiring: Z diode

The figure shows the standard article with a black conductor

## Commercial data

Item number	1438422
Packing unit	1 pc
Minimum order quantity	25 pc
Product key	AF1DAA
GTIN	4046356488235
Weight per piece (including packing)	120.6 g
Weight per piece (excluding packing)	118.22 g
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
Shielded	no

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Material specifications

Flammability rating according to UL 94	V0
Seal material	TPU
Material housing valve plug	TPU
Contact material	CuSn
Valve plug contact insert material	PA 6.6
Contact surface material	Sn

### 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

### 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 A
Number of positions	3
Material	CuSn (Contact)
	Sn (Contact surface)
	PA 6.6 (Contact carrier)
	TPU (Housing)
Protective circuit	Z diode

### Cable/line

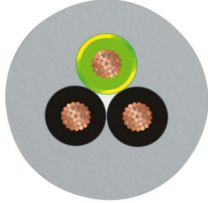
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PUR halogen-free gray [280]

Dimensional drawing	
Cable weight	33.2 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR halogen-free gray [280]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross-section	3x 0.5 mm <sup>2</sup> (Signal line)
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	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	black 1, black 2, green/yellow
Overall twist	Wires twisted in layers
Max. conductor resistance	39 Ω/km (at 20 °C)
Insulation resistance	≥ 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
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
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -20 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

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## Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation) (Valve connector)	-20 °C ... 85 °C (Valve connector)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation) (Cable, flexible installation)	-20 °C ... 80 °C (Cable, flexible installation)

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## Drawings

Dimensional drawing



Valve connector, type A, side view

Dimensional drawing



Valve connector, type A

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Schematic diagram



Valve connector pin assignment, type A

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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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)