

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable



1400620

<https://www.phoenixcontact.com/us/products/1400620>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 3-position, PUR halogen-free, irradiated, highly flexible, orange RAL 2003, Plug straight M12, coding: A, with 1 LED, on Valve connector A, with 1 LED, Wiring: Z diode, cable length: 1 m

As shown in the illustration but with an orange conductor

## Commercial data

Item number	1400620
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	BF07
Product key	AF1DJA
GTIN	4046356509275
Weight per piece (including packing)	64.5 g
Weight per piece (excluding packing)	64.5 g
Customs tariff number	85444290
Country of origin	PL

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable



1400620

<https://www.phoenixcontact.com/us/products/1400620>

## 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	III
Degree of pollution	3

### Connection data

#### Conductor connection

Tightening torque	0.4 Nm (M12 connector)
	0.6 Nm (Valve connector)

### Material specifications

Flammability rating according to UL 94	HB
Seal material	TPU
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
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

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$ (M12 connector)
-----------------------------	----------------------------

### Signaling

Status display	1 LED
----------------	-------

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable



1400620

<https://www.phoenixcontact.com/us/products/1400620>

Status display present	yes
------------------------	-----

## Connector

### Connection 1

Type	Plug straight M12
Number of positions	3
Coding type	A

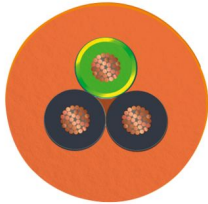
### Connection 2

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

Cable length	1 m
--------------	-----

### PUR irradiated halogen-free orange [150]

Dimensional drawing	
Cable weight	31 kg/km
Number of positions	3
Shielded	no
Cable type	PUR irradiated halogen-free orange [150]
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	1.46 mm ±0.02 mm (Signal line)
External cable diameter	4.50 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	orange RAL 2003
Conductor material	Bare Cu litz wires
Material wire insulation	TPE-E
Single wire, color	black 1, black 2, green/yellow
Thickness, insulation	≥ 0.21 mm (Core insulation)

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable



1400620

<https://www.phoenixcontact.com/us/products/1400620>

	approx. 0.60 mm (Outer cable sheath)
Overall twist	3 wires, twisted
Max. conductor resistance	max. 39 Ω/km (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	23 mm
Smallest bending radius, movable installation	45 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 45 mm, Traversing path: 10 m, Traversing rate: 3 m/s
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with DIN UL-Style 20549
Resistance to oil	in accordance with DIN EN 60811-2-1
Special properties	Silicone-free Irradiated
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation) -5 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65 IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)
Ambient temperature (operation) (Valve connector)	-20 °C ... 85 °C (Valve connector)

## Standards and regulations

### M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

### Valve connector

Standard designation	Valve connector
Standards/specifications	EN 175301-803

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable

1400620

<https://www.phoenixcontact.com/us/products/1400620>

## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing

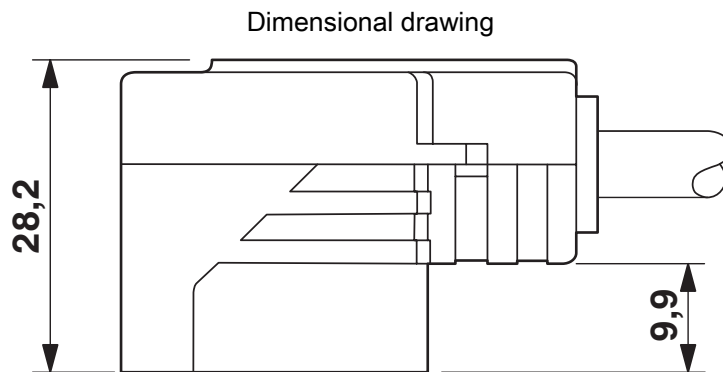


Valve connector, type A

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable

1400620

<https://www.phoenixcontact.com/us/products/1400620>



Valve connector, type A, side view

Schematic diagram



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

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable

1400620

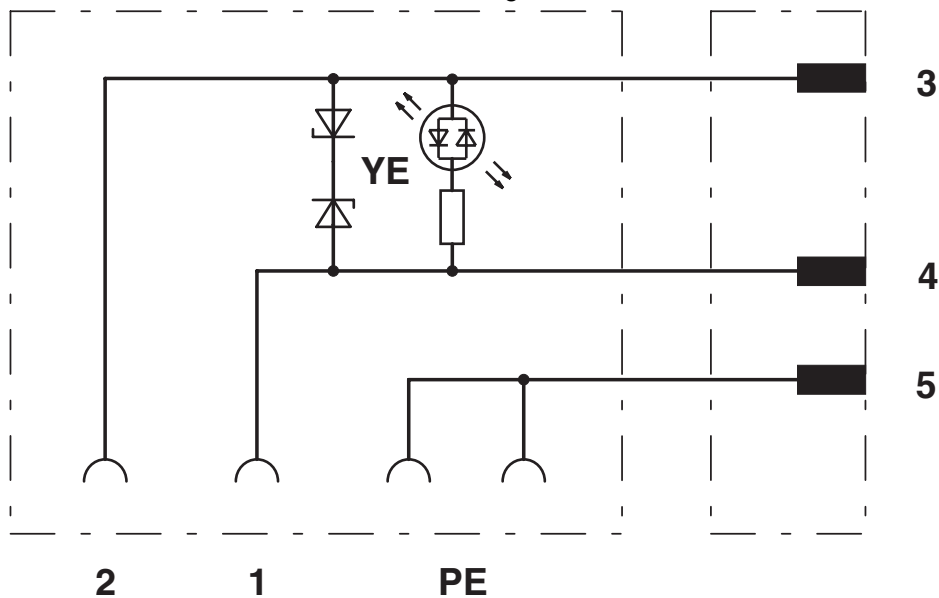
<https://www.phoenixcontact.com/us/products/1400620>

Schematic diagram



Valve connector pin assignment, type A

Circuit diagram



Contact assignment of M12 plug and valve connector

# SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable



1400620

<https://www.phoenixcontact.com/us/products/1400620>

## Classifications

### ECLASS

ECLASS-13.0	27060312
ECLASS-15.0	27060312

### UNSPSC

UNSPSC 21.0	31251501
-------------	----------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

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