

# Sensor/actuator cable - SAC-3P-M12MS/1,0-150/A-1L-Z - 1400620

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

As shown in the illustration but with an orange conductor



## Key Commercial Data

Packing unit	1 pc
Minimum order quantity	100 pc
GTIN	
GTIN	4046356509275

## Technical data

### Dimensions

Length of cable	1 m
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### Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 85 °C (valve plug)
Degree of protection	IP65
	IP67

### General

Rated current at 40°C	4 A
Rated voltage	24 V AC
	24 V DC
Number of positions	3
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101

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## Technical data

### General

	Valve connector EN 175301-803
Status display	1 LED
Protective circuit/component	Z diode
Overvoltage category	III
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100 (M12 connector)
Torque	0.4 Nm (M12 connector)
	0.6 Nm (Valve connector)

### Material

Flammability rating according to UL 94	HB
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU
Valve plug contact material	CuSn
Valve plug contact surface material	Sn
Valve plug contact insert material	PA 6.6
Material housing valve plug	TPU
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	TPU (Seal molded)

### Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Standard designation	Valve connector
Standards/regulations	EN 175301-803
Flammability rating according to UL 94	HB

### Cable

Cable type	PUR irradiated halogen-free orange
Cable type (abbreviation)	150
Cable abbreviation	Li12Y11X
Conductor cross section	3x 0.5 mm <sup>2</sup> (Signal line)
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.46 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
	approx. 0.6 mm (Outer cable sheath)
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	orange RAL 2003

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## Technical data

### Cable

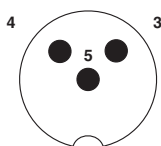
External cable diameter D	4.5 mm ±0.15 mm
Number of bending cycles	5000000
Bending radius	45 mm
Traversing path	10 m
Traversing rate	3 m/s
Cable weight	31 kg/km
Outer sheath, material	PUR
Material conductor insulation	TPE-E
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Conductor resistance	max. 39 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Silicone-free
	Irradiated
Flame resistance	in accordance with DIN UL-Style 20549
Halogen-free	in accordance with DIN VDE 0472 part 815
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

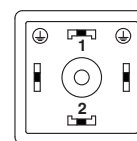
## Drawings

Schematic diagram



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

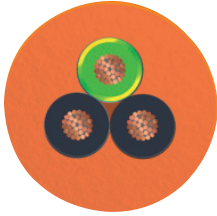
Schematic diagram



Valve connector pin assignment, type A

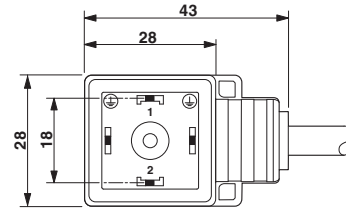
# Sensor/actuator cable - SAC-3P-M12MS/1,0-150/A-1L-Z - 1400620

Cable cross section



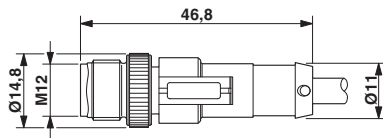
PUR irradiated halogen-free orange [150]

Dimensional drawing



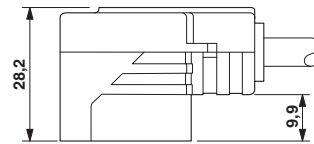
Valve connector, type A

Dimensional drawing



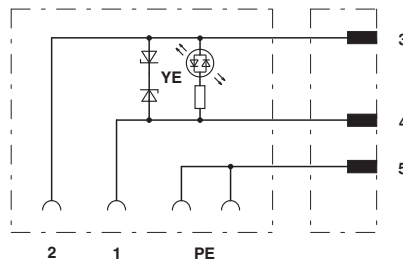
Plug, M12 x 1, straight, shielded

Dimensional drawing



Valve connector, type A, side view

Circuit diagram



Contact assignment of M12 plug and valve connector

## Approvals

### Approvals

Approvals


CSA / CSAus / cCSAus


Ex Approvals


### Approval details

## Sensor/actuator cable - SAC-3P-M12MS/1,0-150/A-1L-Z - 1400620

### Approvals

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
Nominal voltage UN		24 V	
Nominal current IN		4 A	

CSAus		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
Nominal voltage UN		24 V	
Nominal current IN		4 A	

cCSAus			
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