

SAC-3P-M12MS/ 0,7-802/A-1L-Z - Sensor/actuator cable



1454671

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Sensor/actuator cable, 3-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, Plug straight M12, coding: A, with 1 LED, on Valve connector A, with 1 LED, Wiring: Z diode, cable length: 0.7 m

as in the figure, but with a gray conductor

Commercial data

Item number	1454671
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	AF1DJA
GTIN	4046356578097
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 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
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	≥ 100 (M12 connector)
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Signaling

Status display	1 LED
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Status display present	yes
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Connector

Connection 1

Type	Plug straight M12
Number of positions	3
Coding type	A

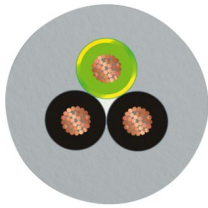
Connection 2

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	0.7 m
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PUR, halogen-free, highly stranded, resistant to welding sparks, gray [800]

Dimensional drawing	
Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable weight	31 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR, halogen-free, highly stranded, resistant to welding sparks, gray [800]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross-section	3x 0.5 mm ² (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

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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	23 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 ²
Dynamic load capacity (torsion)	Torsion: ±360 °/m
Halogen-free	The cable is halogen-free
Flame resistance	in accordance with UL 758/1581 FT2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Special properties	Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing
	Free from silicone and cadmium
	Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °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

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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Valve connector, type A

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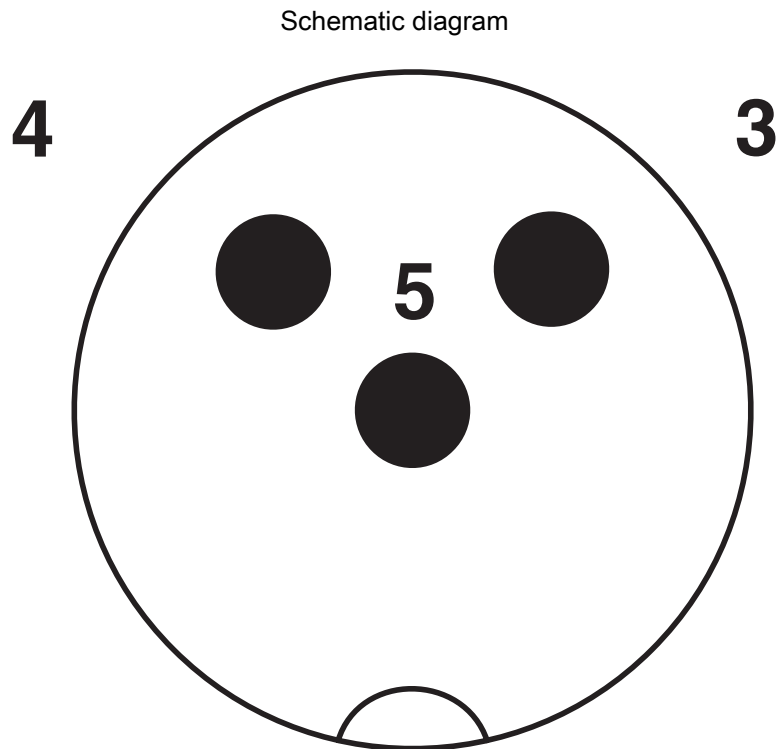


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Valve connector, type A, side view



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

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Schematic diagram



Valve connector pin assignment, type A

Circuit diagram



Contact assignment of M12 plug and valve connector

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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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