

SAC-3P-MS/ 0,6-116/A-1L-Z SCO - Sensor/actuator cable



1453410

<https://www.phoenixcontact.com/us/products/1453410>

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Sensor/actuator cable, 3-position, PUR/PVC, black RAL 9005, Plug straight M12 SPEEDCON, coding: A, on Valve connector A, with 1 LED, Wiring: Z diode, cable length: 0.6 m

Commercial data

Item number	1453410
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	BF07
Product key	AF1DJA
GTIN	4046356552912
Weight per piece (including packing)	67.1 g
Weight per piece (excluding packing)	67 g
Customs tariff number	85444290
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 SPEEDCON
Number of positions	3
Locking type	SPEEDCON
Coding type	A


Connection 2

Type	Valve connector A
Material	CuSn (Contact)
	Sn (Contact surface)
	PA 6.6 (Contact carrier)
	TPU (Housing)
Protective circuit	Z diode

Cable/line

Cable length	0.6 m
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PUR/PVC, 0.75 mm², black [116]

Dimensional drawing	
Cable weight	53.4 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR/PVC, 0.75 mm ² , black [116]
Conductor structure signal line	24x 0.20 mm
AWG signal line	18
Conductor cross-section	3x 0.75 mm ²
Wire diameter incl. insulation	1.7 mm ±0.05 mm
External cable diameter	5.80 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	black 1, black 2, green/yellow

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Overall twist	3 wires, twisted
Max. conductor resistance	26 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	29 mm
Smallest bending radius, movable installation	58 mm
Dynamic load capacity (bending)	Max. bending cycles: 1000000, Traversing path: 10 m, Traversing rate: 2 m/s, Acceleration: 2.5 m/s ²
Flame resistance	DIN VDE 0482
	DIN EN 50265-2-1
	in acc. with UL FT-2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Low adhesion
Special properties	flexible
Ambient temperature (operation)	-40 °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

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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Valve connector, type A

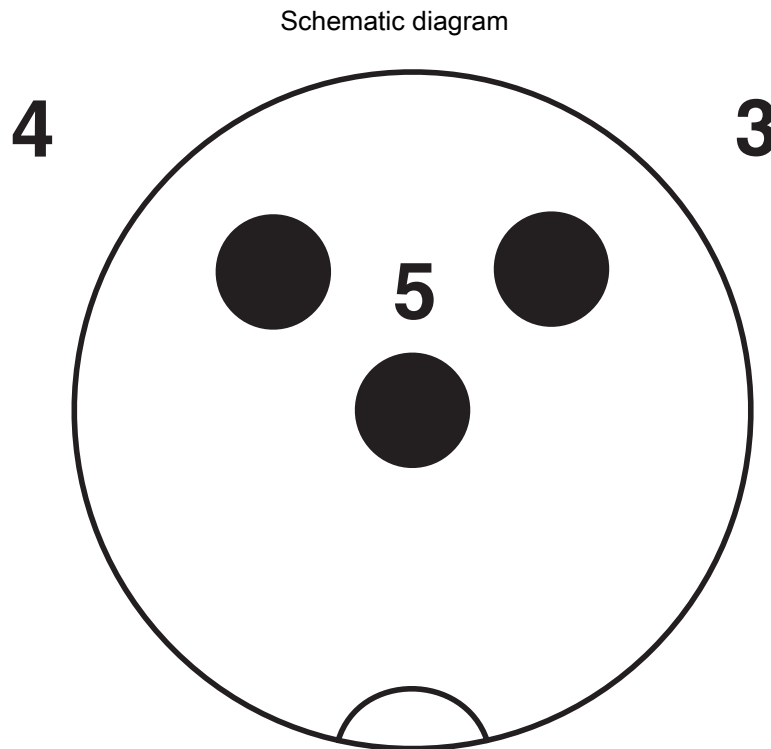
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Valve connector, type A, side view



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

UNSPSC

UNSPSC 21.0	31251501
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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