

SAC-3P-MS/ 1,8-240/CI SCO - Sensor/actuator cable



1409769

<https://www.phoenixcontact.com/gb/products/1409769>

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Sensor/actuator cable, 3-position, PUR halogen-free, yellow, Plug straight M12 SPEEDCON, coding: A, on Valve connector CI (9.4 mm), cable length: 1.8 m

Commercial data

Item number	1409769
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AF1DOA
Product key	AF1DOA
GTIN	4046356881678
Weight per piece (including packing)	78.2 g
Weight per piece (excluding packing)	76.4 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Product properties

Product type	Sensor/actuator cable with valve connector
Application	Standard
Number of positions	3
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

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	48 V AC
	60 V DC
Nominal current I_N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100 (M12 connector)
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Connector

Connection 1

Type	Plug straight M12 SPEEDCON
Number of positions	3
Locking type	SPEEDCON
Coding type	A

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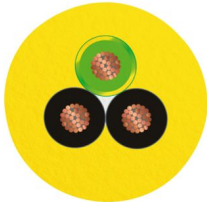
Connection 2

Type	Valve connector CI (9.4 mm)
Number of positions	3
Material	CuSn (Contact)
	Sn (Contact surface)
	PA 6.6 (Contact carriers)
	TPU (Housing)

Cable/line

Cable length	1.8 m
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PUR halogen-free yellow [240]

Dimensional drawing	
Cable weight	30 kg/km
UL AWM Style	20549 (80°C/300 V)
Number of positions	3
Shielded	no
Cable type	PUR halogen-free yellow [240]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross section	3x 0.5 mm²
Wire diameter incl. insulation	1.46 mm ±0.02 mm
External cable diameter	4.50 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	yellow
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	black 1, black 2, green/yellow
Thickness, insulation	≥ 0.21 mm
Thickness, outer sheath	approx. 0.60 mm
Overall twist	3 wires, twisted
Max. conductor resistance	≤ 39 Ω/km
Insulation resistance	≥ 10 GΩ*km
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

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Smallest bending radius, fixed installation	23 mm
Smallest bending radius, movable installation	45 mm
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
Ambient temperature (operation)	-15 °C ... 80 °C (cable, fixed installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 85 °C (Valve connector)
	-40 °C ... 80 °C (cable, fixed installation)
	-15 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

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

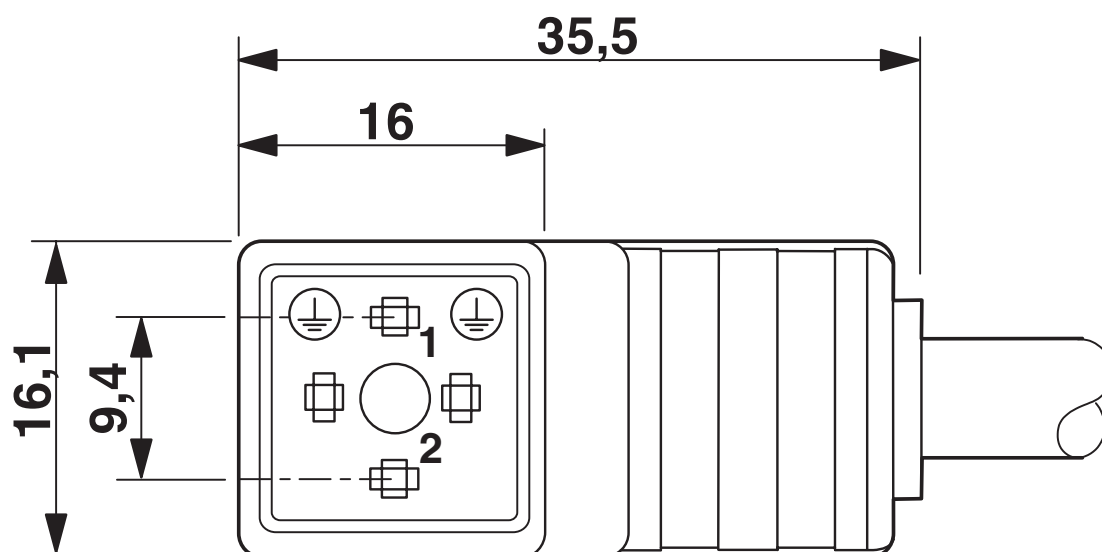
Drawings

Dimensional drawing



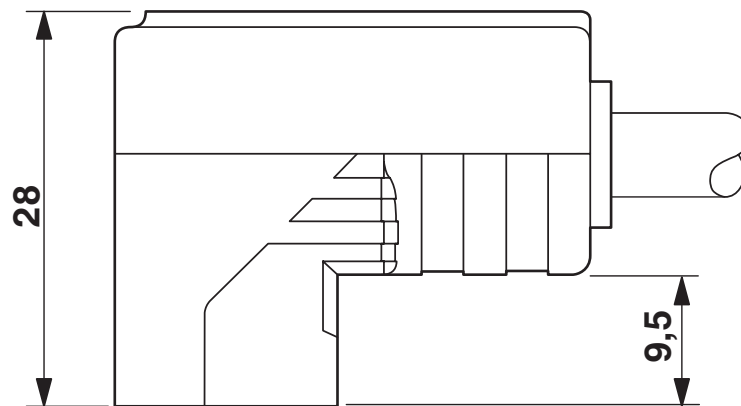
Plug, M12 x 1, straight, shielded

Dimensional drawing



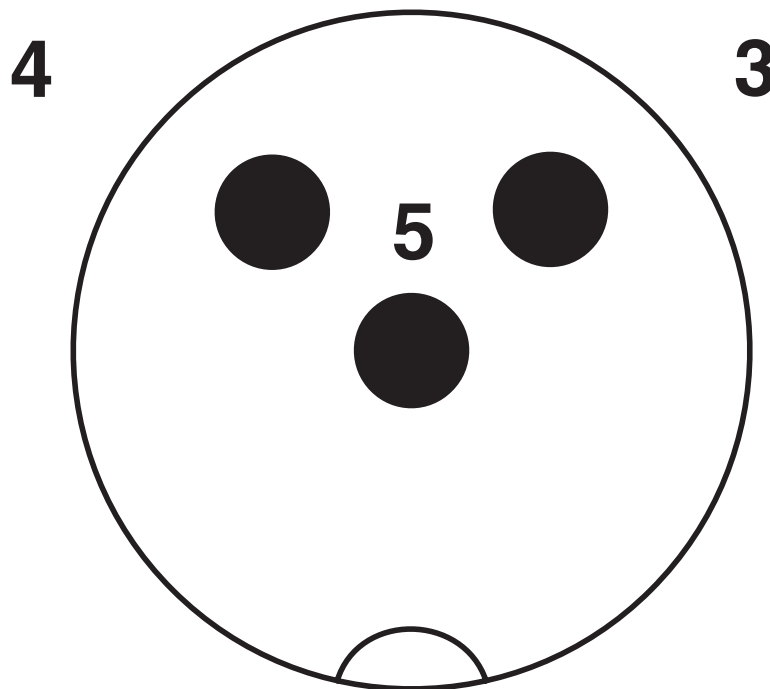
Valve connector, type CI

Dimensional drawing



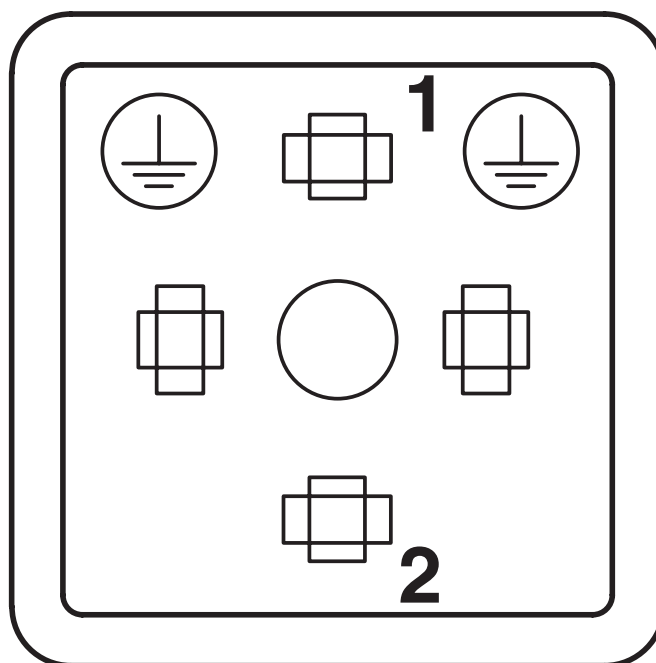
Valve connector, type CI, side view

Schematic diagram



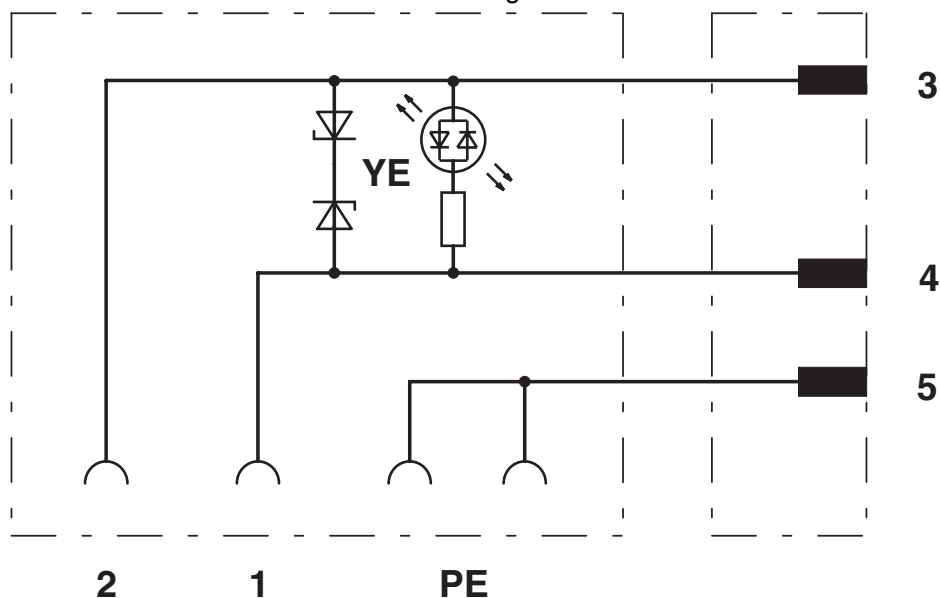
Pin assignment M12 plug, 3-pos., valve connector

Schematic diagram



Valve connector connector pin assignment, type CI

Circuit diagram



Contact assignment of M12 plug and valve connector

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1409769>

**EAC-RoHS**
Approval ID: RU D-DE.HB35.B.00387

	CSAus Approval ID: 13631			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
	230 V	4 A	-	-

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Classifications

ECLASS

ECLASS-13.0	27060312
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ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	31251500
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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-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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