

SAC-5P-M12MS/2,0-PUR VA - Sensor/actuator cable

1412460

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on free cable end, cable length: 2 m

Commercial data

Item number	1412460
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	AF1CDA
GTIN	4046356963336
Weight per piece (including packing)	80 g
Weight per piece (excluding packing)	80 g
Country of origin	PL

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Stainless steel
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

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
Max. conductor resistance	58 Ω/m

Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100
Max. bending cycles	4000000

Signaling

Status display	no
Status display present	no

Connector

Connection 1	
Type	Plug straight M12
Number of positions	5

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Coding type

A

Connection 2

Type

free cable end

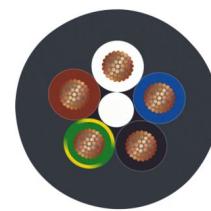
Cable/line

Cable length

2 m

PUR halogen-free black [PUR]

Dimensional drawing



Cable weight

33 kg/km

UL AWM Style

20549

Number of positions

5

Shielded

no

Cable type

PUR halogen-free black [PUR]

Conductor structure signal line

42x 0.10 mm

AWG signal line

22

Conductor cross section

5x 0.34 mm² (Signal line)

Wire diameter incl. insulation

1.27 mm 0.05 mm (Signal line)

External cable diameter

4.55 mm ±0.15 mm

Outer sheath, material

PUR

External sheath, color

black-gray RAL 7021

Conductor material

Bare Cu litz wires

Material wire insulation

PP

Single wire, color

brown, white, blue, black, green-yellow

Thickness, insulation

approx. 0.50 mm

Max. conductor resistance

max. 58 Ω/km (at 20 °C)

Insulation resistance

≥ 16 GΩ*km (at 20 °C)

Nominal voltage, cable

300 V

Test voltage

3000 V

Smallest bending radius, fixed installation

23 mm

Smallest bending radius, movable installation

46 mm

Dynamic load capacity (bending)

Max. bending cycles: 10000000, Bending radius: 46 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²

Dynamic load capacity (torsion)

Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.

Halogen-free

in accordance with DIN VDE 0472 part 815

Flame resistance

in accordance with UL 758/1581 FT2

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	DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents hydrolysis and microbe resistant Resistant to salt water partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable Silicone-free Free of substances which would hinder coating with paint or varnish flexible
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 IP68
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation) (Cable, flexible installation)	-5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

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

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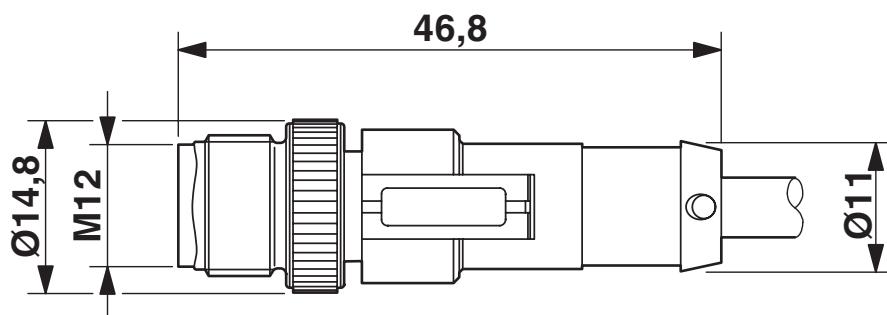
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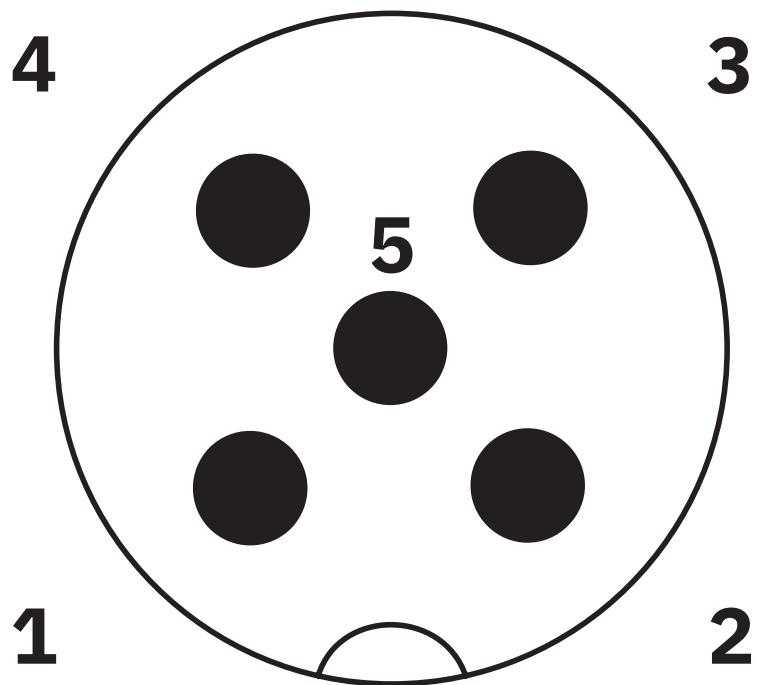
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

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Circuit diagram



Contact assignment of the M12 plug

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

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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