

SAC-5P-MS/ 0,5-PURSH/FS BK PHN - Sensor/actuator cable



1402374

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: 0.5 m

Commercial data

Item number	1402374
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	AF1CDA
GTIN	4046356610636
Weight per piece (including packing)	40.5 g
Weight per piece (excluding packing)	40.3 g
Country of origin	PL

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1402374

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Technical data

Product properties

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

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
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	Zinc die-cast, nickel-plated

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100 (Quantity: 500 with Phoenix Contact mating connector)
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Signaling

Status display	no
Status display present	no

Connector

Connection 1

Type	Plug straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	A

Connection 2

SAC-5P-MS/ 0,5-PURSH/FS BK PHN - Sensor/actuator cable



1402374

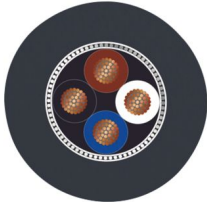
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Type	Socket straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	A

Cable/line

Cable length	0.5 m
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PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	36 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm ² (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
External cable diameter	4.95 mm ±0.2 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
Thickness, insulation	≥ 0.21 mm
Thickness, outer sheath	approx. 0.50 mm
Overall twist	4 wires, twisted
Optical shield covering	80 %
Max. conductor resistance	max. 58 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Wave impedance	≥ 62 Ω (f = 10 MHz)
Cable capacity	≤ 80 pF/m (Conductor-Conductor) ≤ 135 pF/m (Wire/shield)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D

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1402374

<https://www.phoenixcontact.com/us/products/1402374>

Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	25 mm
Smallest bending radius, movable installation	50 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
Dynamic load capacity (torsion)	Torsion: $\pm 180^\circ/\text{m}$, Torsion cycles: ≥ 2000000 , Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Flame resistance	in accordance with UL 758/1581 FT2
	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)
	abrasion-resistant
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	Low adhesion surface
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)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

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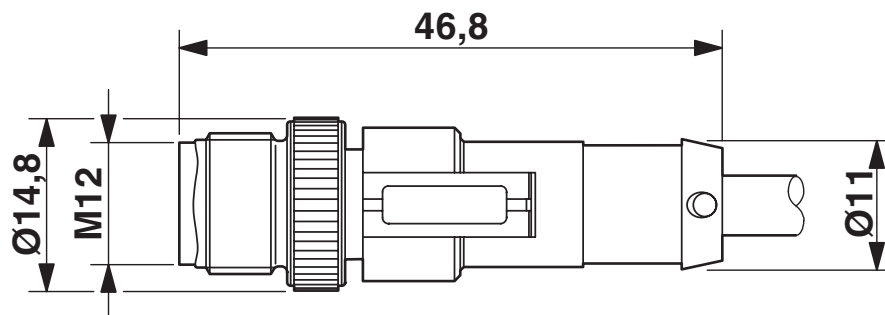


1402374

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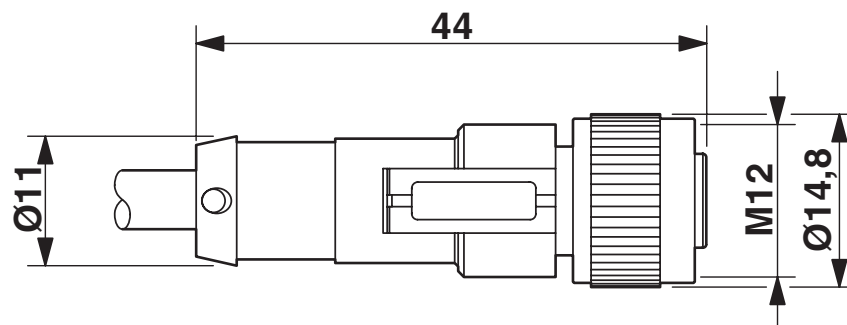
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



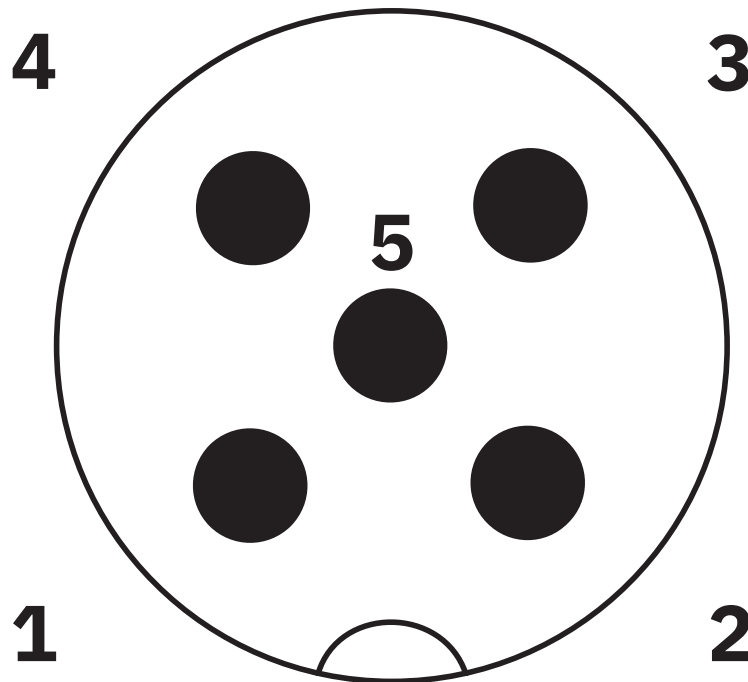
M12 x 1 socket, straight

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1402374

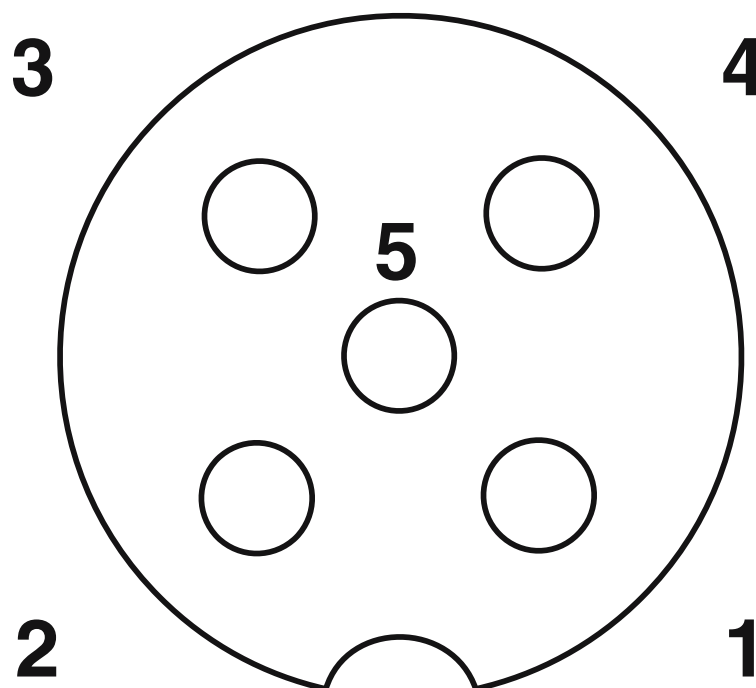
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Schematic diagram



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

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

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1402374

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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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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