

SAC-5P-M12MS/ 1,0-920/M12MS - Sensor/actuator cable

1525775
<https://www.phoenixcontact.com/us/products/1525775>

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Sensor/actuator cable, 5-position, PUR halogen-free, red lilac RAL 4001, Plug straight M12, coding: A, on Plug straight M12, coding: A, cable length: 1 m

Commercial data

Item number	1525775
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	AF1CKD
GTIN	4017918950279
Weight per piece (including packing)	84.7 g
Weight per piece (excluding packing)	86.2 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Data cable preassembled
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Signaling

Status display	no
Status display present	no

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
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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

Connector

Connection 1

Type	Plug straight M12
Number of positions	5
Coding type	A (Standard)

Connection 2

Type	Plug straight M12
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Number of positions	5
Coding type	A (Standard)

Cable/line

Cable length	1 m
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CANopen®/DeviceNet™, PUR, violet [920]

Dimensional drawing		
UL AWM Style	21198 (80°C/300 V)	
Number of positions	4	
Shielded	yes	
Cable type	CANopen®/DeviceNet™, PUR, violet [920]	
Conductor structure	2xAWG24/19+2xAWG22/19	
AWG signal line	24	
AWG power supply	22	
Conductor cross section	2x 0.25 mm² (Data cable)	
	2x 0.34 mm² (Power supply)	
	1x 0.34 mm² (Drain wire)	
Wire diameter incl. insulation	1.95 mm ±0.05 mm (Data cable)	
	1.4 mm ±0.05 mm (Power supply)	
External cable diameter	6.70 mm ±0.3 mm	
Outer sheath, material	PUR	
External sheath, color	red lilac RAL 4001	
Conductor material	Tin-plated Cu litz wires	
Material wire insulation	Foamed PE (Data cable)	
	PE (Power supply)	
Single wire, color	red-black, blue-white	
Twisted pairs	2 cores to the pair	
Overall twist	2 pairs around a drain wire in the center to the core	
Optical shield covering	80 %	
Insulation resistance	≥ 5 GΩ*km (Data cable)	
	≥ 5 GΩ*km (Power supply)	
Wave impedance	120 Ω ±10 % (with 1 MHz)	
Nominal voltage, cable	≤ 300 V (Peak value, not for high-power applications)	
Test voltage Core/Core	2000 V (50 Hz, 1 min.)	
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)	
Minimum bending radius, fixed installation	4 x D	

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Minimum bending radius, flexible installation	8 x D
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 70 mm, Bending radius: 15 x D, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s², Ambient temperature: -20 °C ... 60 °C
Shield attenuation	≤ 22.9 dB/km (with 1 MHz)
	≤ 16.4 dB/km (At 500 kHz)
	≤ 9.5 dB/km (At 125 kHz)
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
	IEC 60332-1-2
	in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 70 °C (Cable, flexible installation)
	-20 °C ... 60 °C (for installation)
	-20 °C ... 60 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 75 °C (Cable, flexible installation)

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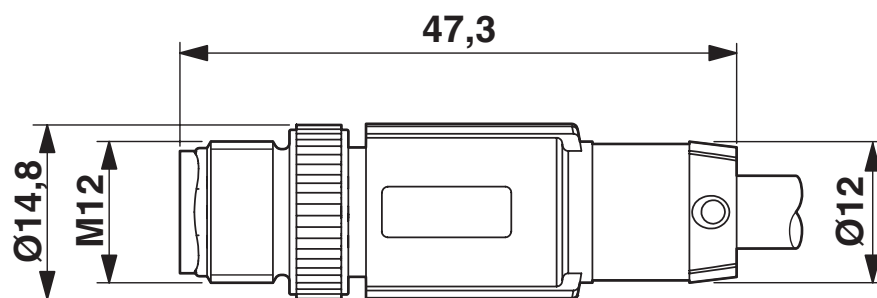
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Plug, M12 x 1, straight, shielded

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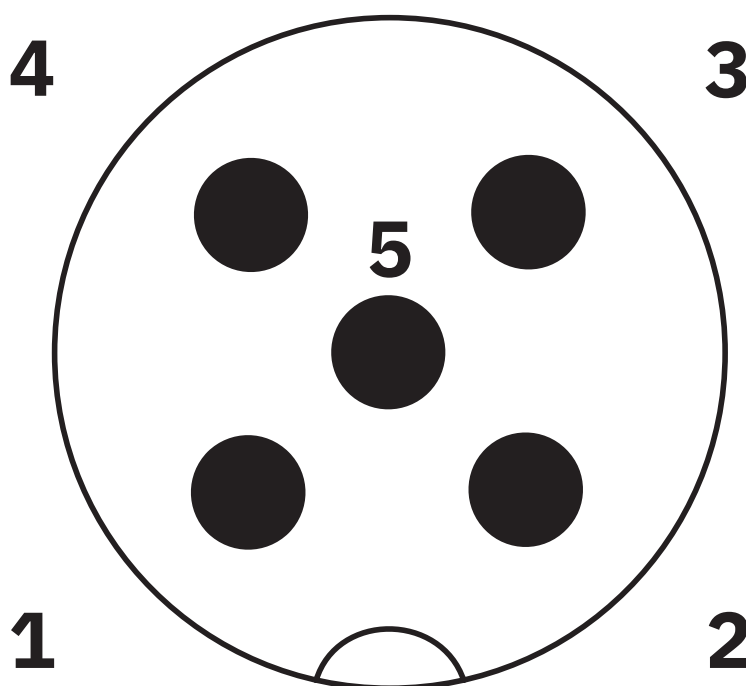
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Schematic diagram



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

Schematic diagram



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

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Approvals

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EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

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Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

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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