

SAC-4P-M12MS/30-28X/FSSHOD HT -
Sensor/actuator cable

1417633
<https://www.phoenixcontact.com/us/products/1417633>

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Sensor/actuator cable, 4-position, PE-X/PE-X halogen-free, black-gray RAL 7021, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 30 m, for outdoor applications, with high-grade steel knurl

Commercial data

Item number	1417633
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	BF1CJA
GTIN	4055626118130
Weight per piece (including packing)	2,267 g
Weight per piece (excluding packing)	2,180 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Sensor/actuator cable
Application	External areas
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Degree of pollution	3
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Material specifications

Flammability rating according to UL 94	V0
Seal material	FPM
Material of grip body	PP
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material for screw connection	Stainless steel

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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Signaling

Status display	No
Status display present	No

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)
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Connector

Connection 1

Type	Plug straight M12
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Number of positions	4
Coding type	A

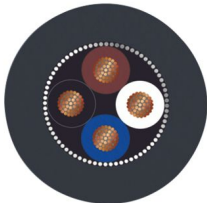
Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	A

Cable/line

Cable length	30 m
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PE-X black [28X]

Dimensional drawing			
Cable weight	74 kg/km		
Number of positions	4		
Shielded	yes		
Cable type	PE-X black [28X]		
Conductor structure signal line	28x 0.15 mm		
AWG signal line	20		
Conductor cross section	4x 0.5 mm ² (Signal line)		
Wire diameter incl. insulation	1.6 mm ±0.05 mm (Signal line)		
External cable diameter	6.80 mm ±0.2 mm		
Outer sheath, material	PE-X		
External sheath, color	black-gray RAL 7021		
Conductor material	Bare Cu litz wires		
Material wire insulation	PE-X		
Single wire, color	brown, white, blue, black		
Thickness, insulation	approx. 0.30 mm (Core insulation)		
	approx. 0.70 mm (Outer cable sheath)		
	approx. 0.45 mm (Inner sheath)		
Overall twist	4 wires, twisted		
Length of twist, overall twist	108.8 mm		
Optical shield covering	85 %		
Max. conductor resistance	≤ 39 Ω/km (at 20 °C)		
Insulation resistance	≥ 100 MΩ*km (at 20 °C)		
Cable capacity	≤ 100 nF/km (Conductor-conductor, asymmetrical/touching)		
	≤ 85 nF/km (Conductor-conductor, symmetrical/star quad)		
	≤ 150 nF/km (Wire/shield)		

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Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	68 mm
Max. bending cycles	1000000
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	according to DIN 60332-1-2
	according to DIN EN 50266-2-5
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant (according to DIN VDE 0276-605)
Special properties	Irradiated
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-15 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP68
Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))

Standards and regulations

M12

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

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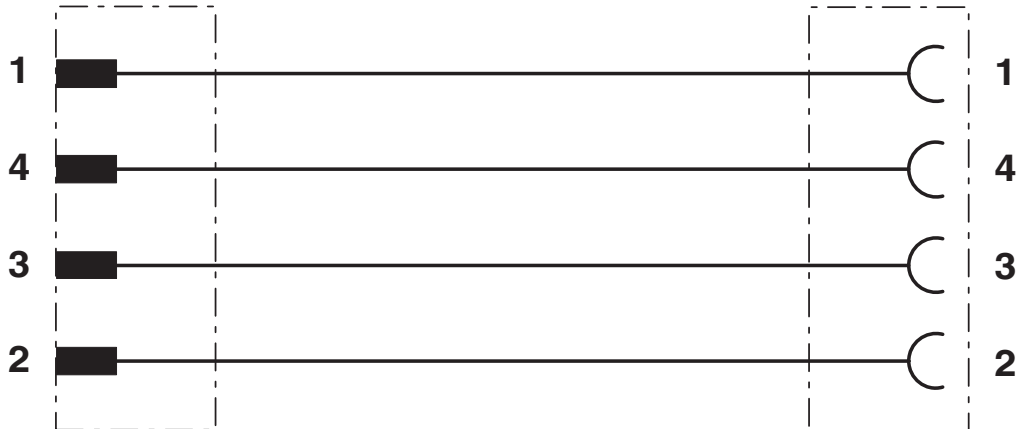


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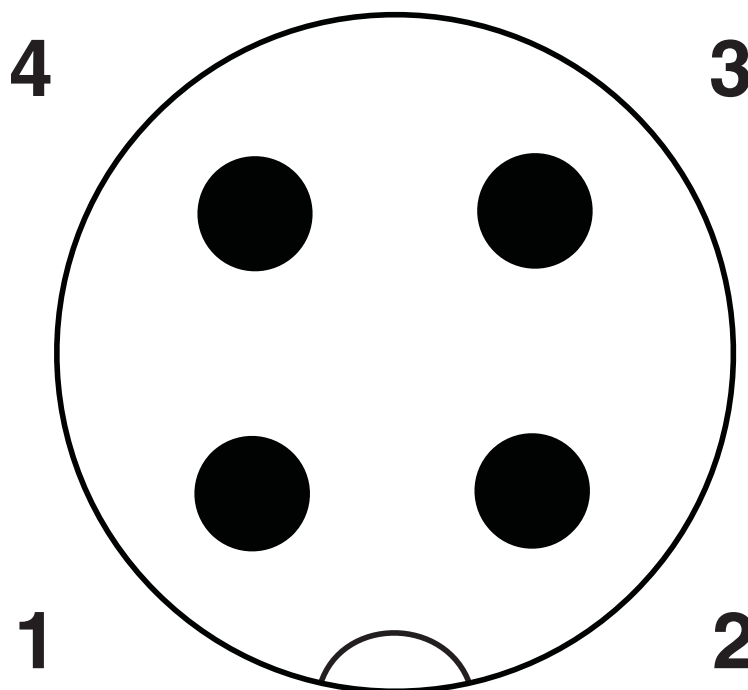
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Drawings

Circuit diagram



Schematic diagram



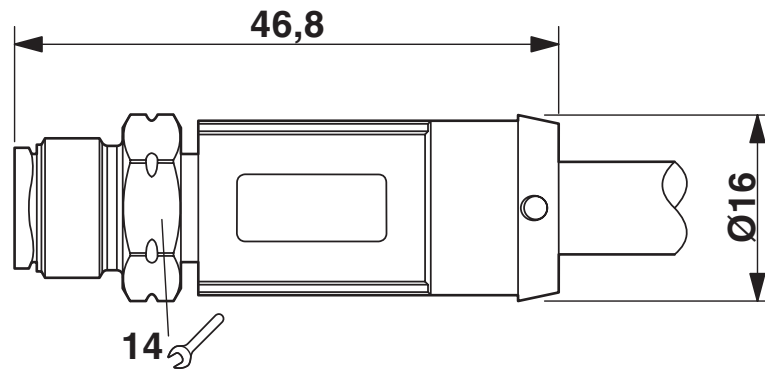
Pin assignment M12 plug, 4-pos., A-coded, view plug side

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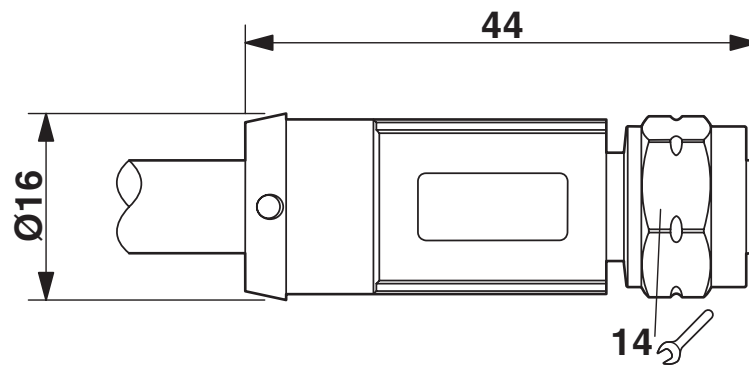
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

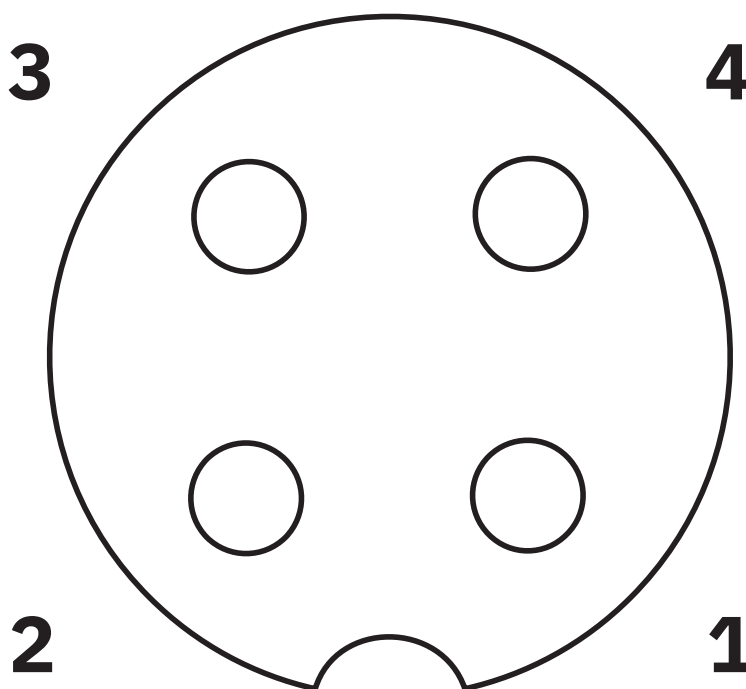
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Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

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Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

ETIM

ETIM 8.0	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
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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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com