

SAC-5P-M12MS/1-92X/M12FSSHOD - Bus system cable



1419162

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Bus system cable, CANopen®, DeviceNet™, 5-position, FRNC halogen-free, black, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 1 m, for outdoor applications, with high-grade steel knurl

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C ... +105°C
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Commercial data

Item number	1419162
Packing unit	1 pc
Minimum order quantity	25 pc
Note	Made to order (non-returnable)
Product key	AF1CKD
GTIN	4055626156965
Weight per piece (including packing)	102.5 g
Weight per piece (excluding packing)	86.07 g
Country of origin	PL

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1419162

<https://www.phoenixcontact.com/us/products/1419162>

Technical data

Product properties

Product type	Data cable preassembled
Application	External areas
Sensor type	CANopen®
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Degree of pollution	3
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Interfaces

Bus system	CANopen®/DeviceNet™
Signal type/category	CANopen®
	DeviceNet™

Signaling

Status display	no
Status display present	no

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Transmission medium	Copper

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

Connector

Connection 1

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

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1419162

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Connection 2

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

Cable/line

Cable length	1 m
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CANopen®/DeviceNet™ outdoor installation, FRNC, black [92X]

Dimensional drawing		
Cable weight	70 kg/km	
UL AWM Style	21281 (80°C/300 V)	
Number of positions	4	
Shielded	yes	
Cable type	CANopen®/DeviceNet™ outdoor installation, FRNC, black [92X]	
Conductor structure	2xAWG24/19+2xAWG22/19	
Signal runtime	4.46 ns/m	
Conductor structure signal line	19x 0.13 mm	
AWG signal line	24	
Conductor structure, voltage supply	19x 0.16 mm	
AWG power supply	22	
Conductor cross section	2x 0.25 mm ² (Signal)	
	2x 0.34 mm ² (Power)	
	1x 0.38 mm ² (Drain wire)	
Wire diameter incl. insulation	1.9 mm (Signal)	
	1.4 mm (Power)	
External cable diameter	6.90 mm ±0.3 mm	
Outer sheath, material	FRNC	
External sheath, color	black	
Conductor material	Tin-plated Cu litz wires	
Material wire insulation	PE	
Single wire, color	red-black, blue-white	
Thickness, insulation	0.60 mm (Signal)	
	0.30 mm (Power)	
Thickness, outer sheath	1.15 mm	
Twisted pairs	2 cores to the pair	
Type of pair shielding	Aluminum-lined foil	

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1419162

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Overall twist	2 pairs around a drain wire in the center to the core
Optical shield covering	70 %
Max. conductor resistance	90 Ω /km (Signal)
	55 Ω /km (Power)
Insulation resistance	$\geq 200 \text{ M}\Omega \cdot \text{km}$ (at 20 °C)
Wave impedance	120 $\Omega \pm 12 \Omega$ (f = 1 MHz)
Working capacitance	39.8 nF (at 1 kHz, core/core)
Nominal voltage, cable	$\leq 300 \text{ V}$
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	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	35 mm
Smallest bending radius, movable installation	69 mm
Halogen-free	yes
Flame resistance	According to IEC 60332-3-25 (Cat. D)
Resistance to oil	yes
Other resistance	UV resistant
Ambient temperature (operation)	-40 °C ... 105 °C
Ambient temperature (installation)	-40 °C ... 105 °C

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP68

Standards and regulations

M12

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

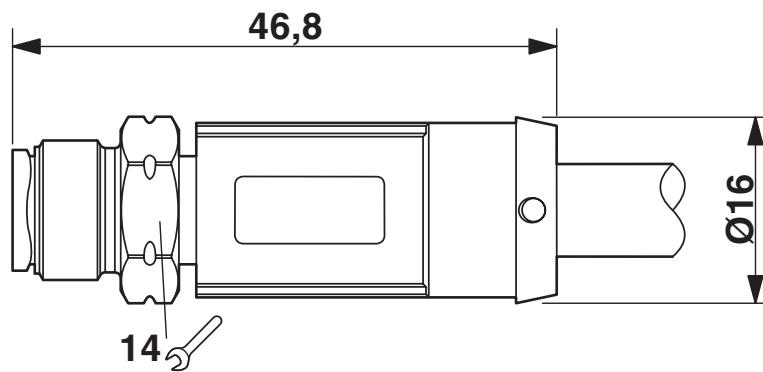
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1419162

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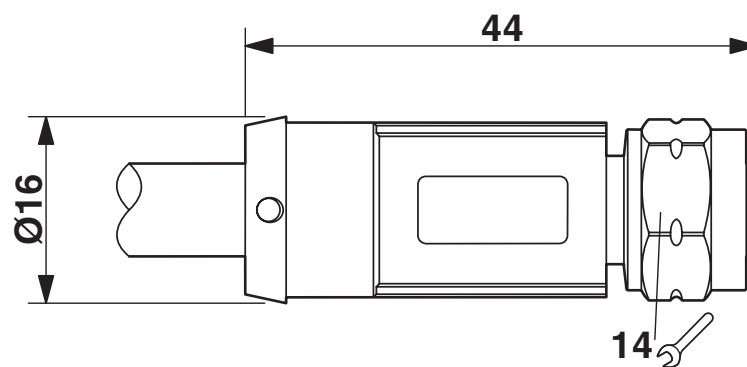
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

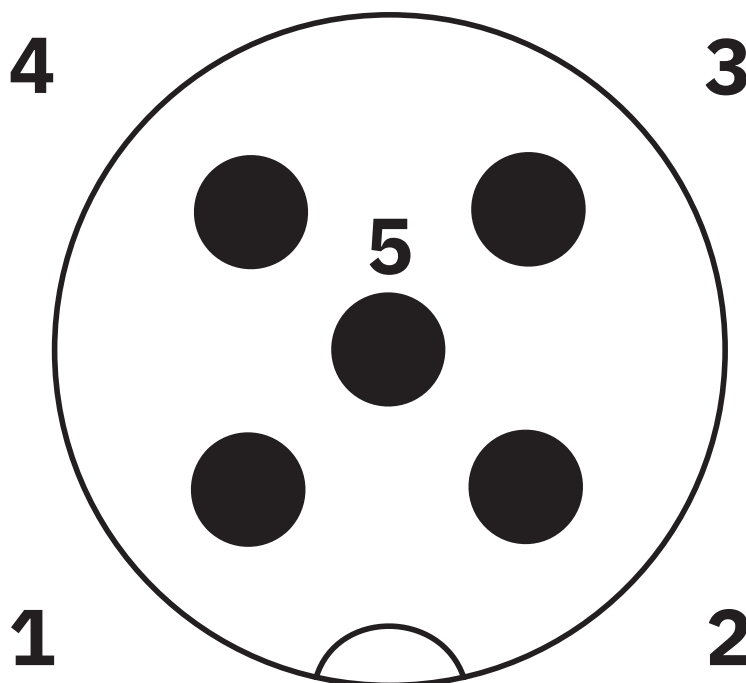
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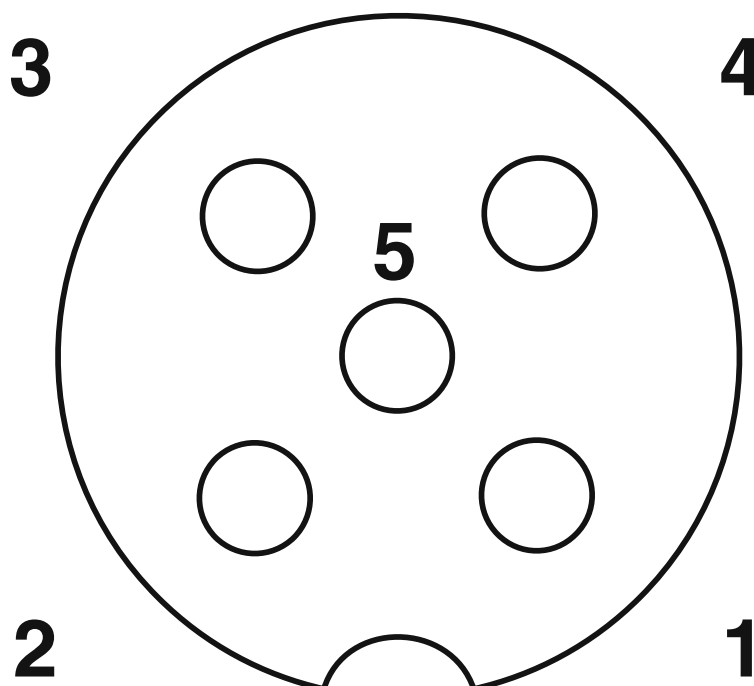
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Schematic diagram



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

Schematic diagram



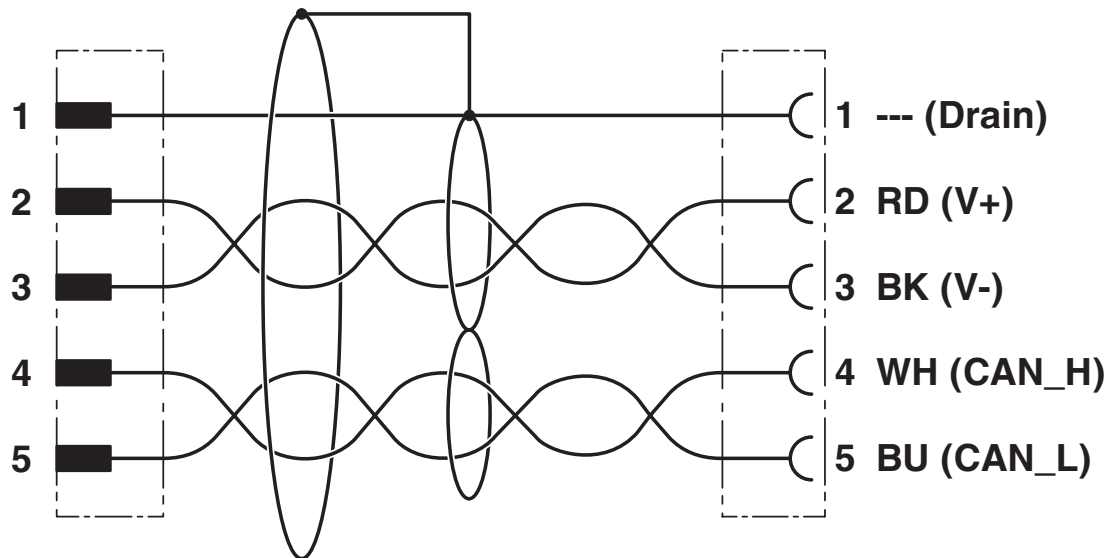
Pin assignment M12 socket, 5-pos., A-coded, socket side view

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Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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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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