

SAC-5P-M12MS/ 5,0-28X SH OD - Sensor/actuator cable



1407264

<https://www.phoenixcontact.com/de/produkte/1407264>

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Sensor/actuator cable, 5-position, PE-X/PE-X halogen-free, black-gray RAL 7021, shielded, Plug straight M12, coding: A, on free cable end, cable length: 5 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	1407264
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C1 - Sensor-Aktor-Kabel
Product Key	BF1CKA
Catalog Page	Page 156 (C-4-2013)
GTIN	4046356773829
Weight per Piece (including packing)	451,6 g
Weight per Piece (excluding packing)	451,3 g
Customs tariff number	85444290
Country of origin	PL

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Technical Data

Product properties

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

Insulation characteristics

Degree of pollution	3
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Material specifications

Color	black
Flammability rating according to UL 94	V0
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

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Protective circuit	unwired

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

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Connection 1

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

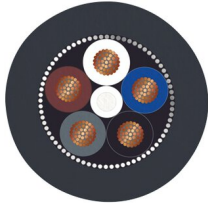
Connection 2

Type	free cable end
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Cable/line

Cable length	5 m
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PE-X black [28X]

Dimensional drawing	
Cable weight	85 kg/km
Number of positions	5
Shielded	yes
Cable type	PE-X black [28X]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross section	5x 0.5 mm ²
Wire diameter incl. insulation	1.6 mm ±0.5 mm
External cable diameter	7.25 mm ±0.3 mm
Outer sheath, material	PE-X
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material, filler	PP yarn
Material wire insulation	PE-X
Single wire, color	brown, white, blue, black, gray
Thickness, insulation	approx. 0.3 mm (Core insulation)
Inner sheath thickness	approx. 0.5 mm
Thickness, outer sheath	approx. 0.7 mm
Overall twist	5 wires around filler to the core
Length of twist, overall twist	68 mm
Optical shield covering	85 %
Max. conductor resistance	≤ 39 Ω/m (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)

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Working capacitance	≤ 110 pF (core-core)
	≤ 200 pF (core-shield)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)
Test voltage Core/Shield	≥ 1000 V AC (for 10 s)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	1000000
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Flame resistance	According to DIN EN 60332-1-2
	according to DIN EN 50266-2-5
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
	According to DIN EN 50306
Other resistance	Resistance to fuels according to IEC 60811, 168 h at 70°C
	UV resistant according to DIN VDE 0276-605
	UV resistant in accordance with DIN EN ISO 4892-2-A (750 h)
Special properties	Inductance approx. 0.48 mH/km
	Irradiated
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-15 °C ... 105 °C (Cable, flexible installation)
	20 °C ±5 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
	IP69K
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

Standards/specifications	IEC 61076-2-101
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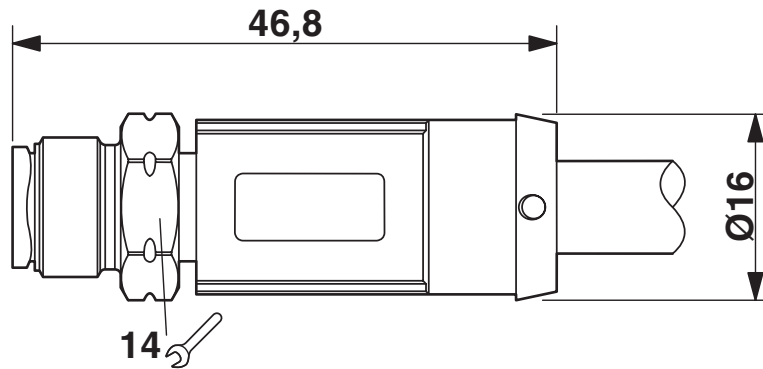
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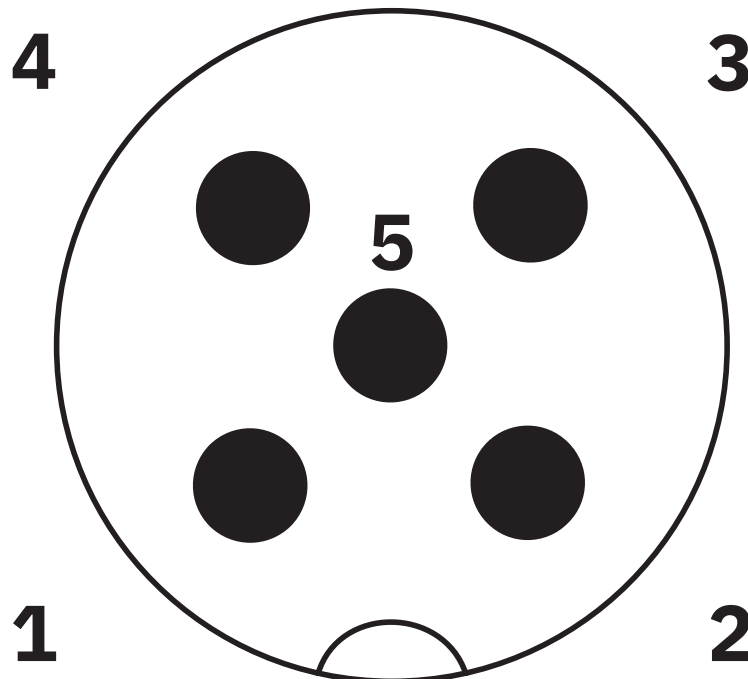
Drawings

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



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Approvals

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EAC

Approval ID: RU C-DE.BL08.B.00286



EAC-RoHS

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

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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

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/de/produkte/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/de/produkte/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/de/produkte/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

SAC BIT M12-W14 - Tool

1212513

<https://www.phoenixcontact.com/de/produkte/1212513>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a hexagonal knurl wrench size of 14 mm, with 4 mm hexagonal drive

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