SAC-5P-M12MS/10,0-28X OD - Sensor/actuator cable

1407257

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Sensor/actuator cable, 5-position, PE-X halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on free cable end, cable length: 10 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

Commercial data

Item number	1407257
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CDA
GTIN	4046356773744
Weight per piece (including packing)	677.3 g
Weight per piece (excluding packing)	677.3 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Product properties

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

Insulation characteristics

Degree of pollution	3

Material specifications

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

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

Signaling

Status display	no
Status display present	no

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)

Connector

Connection 1

Type	Plug straight M12
Number of positions	5

Coding type	A

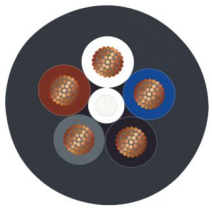
Connection 2

Type	free cable end

Cable/line

Cable length	10 m

PE-X black [28X]

Dimensional drawing	
Cable weight	70 kg/km
Number of positions	5
Shielded	no
Cable type	PE-X black [28X]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross-section	5x 0.5 mm²
Wire diameter incl. insulation	1.6 mm ±0.05 mm
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, filler	PP yarn
Material wire insulation	PE-X
Single wire, color	brown, white, blue, black, gray
Thickness, insulation	approx. 0.30 mm (Core insulation)
Thickness, outer sheath	approx. 1.25 mm
Overall twist	5 wires around filler to the core
Length of twist, overall twist	68 mm
Max. conductor resistance	≤ 39 Ω/m (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	68 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 10 x D,

	Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²
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
	according to IEC 60332-3-25 (bunched fire test)
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)
Special properties	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) (male connector/female connector)	-40 °C ... 105 °C (Plug / socket)
Ambient temperature (operation) (Operation)	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))

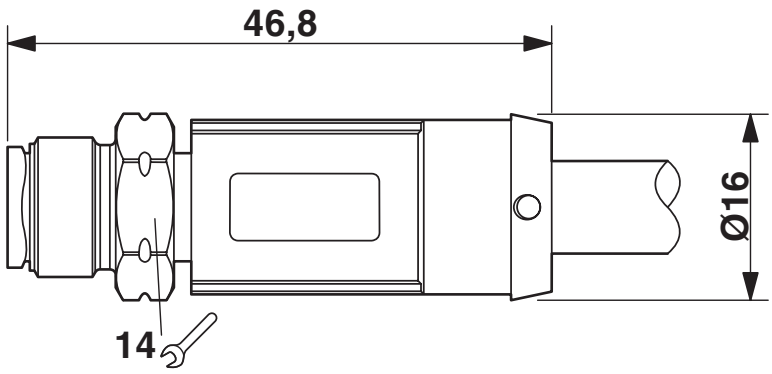
Standards and regulations

M12

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

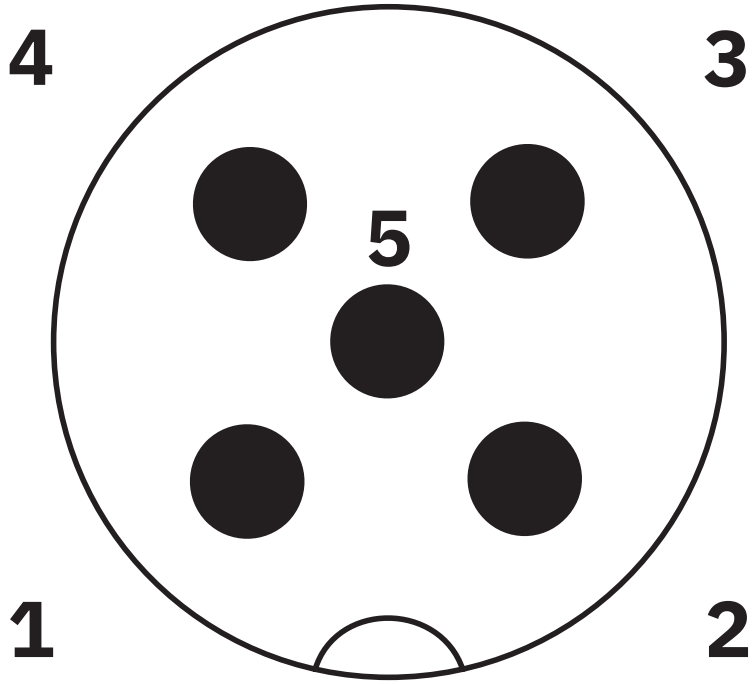
Drawings

Dimensional drawing



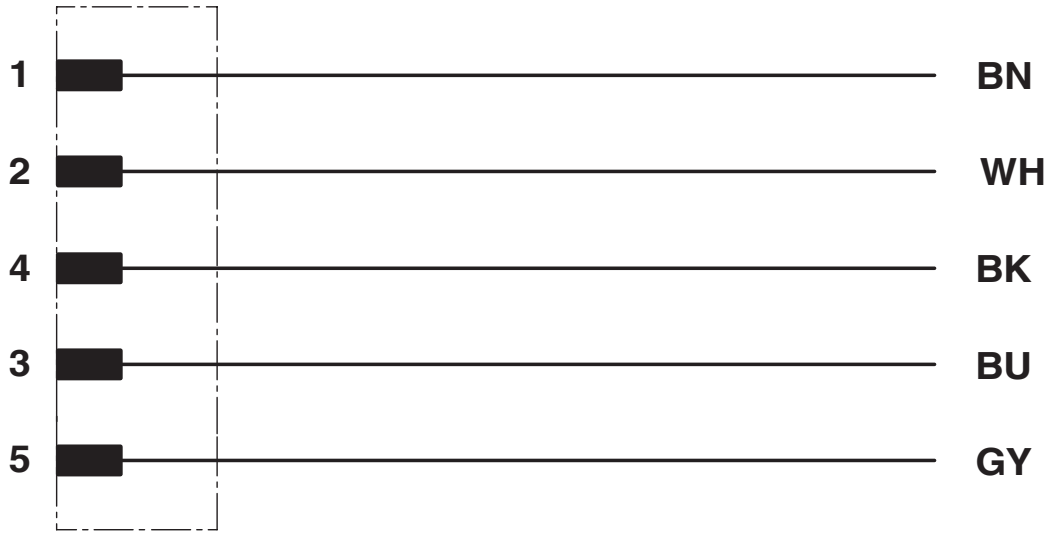
Plug, M12 x 1, straight, shielded

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1407257

DNV
Approval ID: TAE00002K4

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

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 10.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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.)	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	b857c198-70fb-4360-807d-1a6a5a775696

EF3.1 Climate Change

CO2e kg	7.606 kg CO2e

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