

Sensor/actuator cable - SAC-5P-M12MS/ 2,0-28X/M12FS OD - 1407261

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Sensor/actuator cable, 5-position, PE-X halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: 2 m, for outdoor applications, with high-grade steel knurl

Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Corrosion protection for all exposed metal parts, thanks to the use of stainless steel type 1.4404
- ✓ Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C to +105°C

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 773782
GTIN	4046356773782

Technical data

Dimensions

Length of cable	2 m
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Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))
Degree of protection	IP65/IP68/IP69K

General

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	5
Insulation resistance	≥ 100 MΩ
Coding	A - standard

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Technical data

General

Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	unwired
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	Stainless steel
Sealing material	FPM

Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Flammability rating according to UL 94	V0

Cable

Cable type	PE-X black
Cable type (abbreviation)	28X
Cable abbreviation	Li2X2X
Conductor cross section	5x 0.5 mm ²
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.6 mm ±0.5 mm
Thickness, insulation	approx. 0.3 mm (Core insulation)
Wire colors	Brown, white, blue, black, gray
Overall twist	5 wires around filler to the core
Length of twist, overall twist	68 mm
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 1.25 mm
External cable diameter D	6.8 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s

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Cable

Acceleration	10 m/s ²
Cable weight	70 kg/km
Outer sheath, material	PE-X
Material, filler	PP yarn
Material conductor insulation	PE-X
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Conductor resistance	≤ 39 Ω/m (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Special properties	Irradiated
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)
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
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
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)

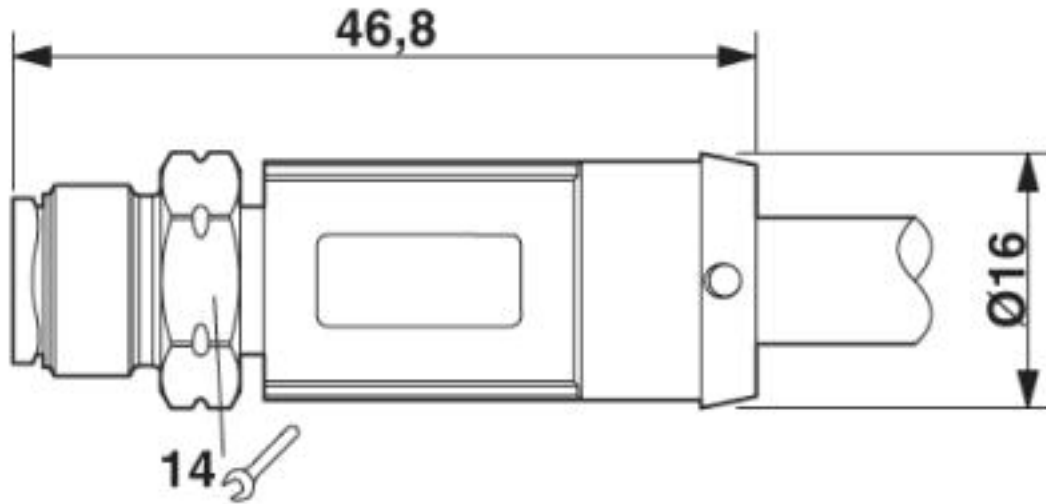
Environmental Product Compliance

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

Drawings

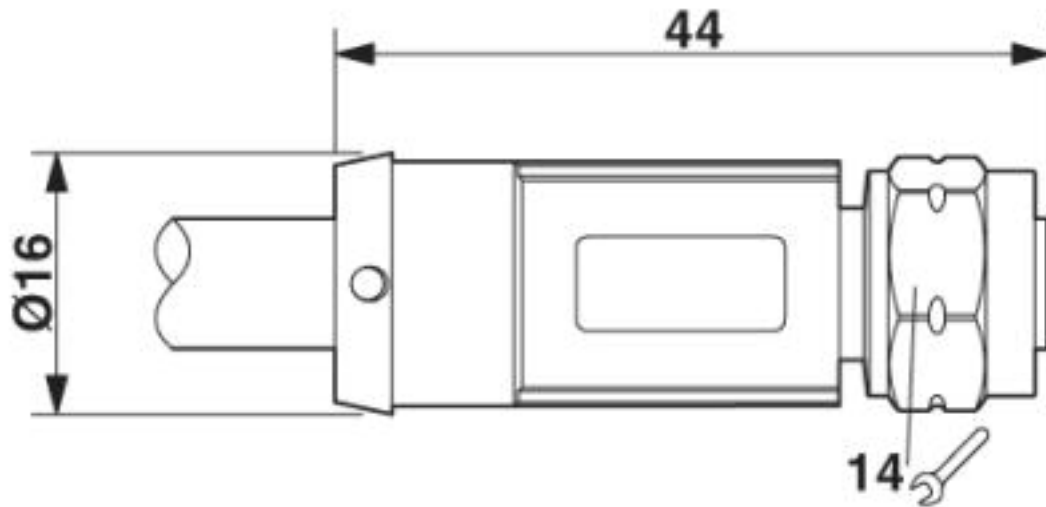
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

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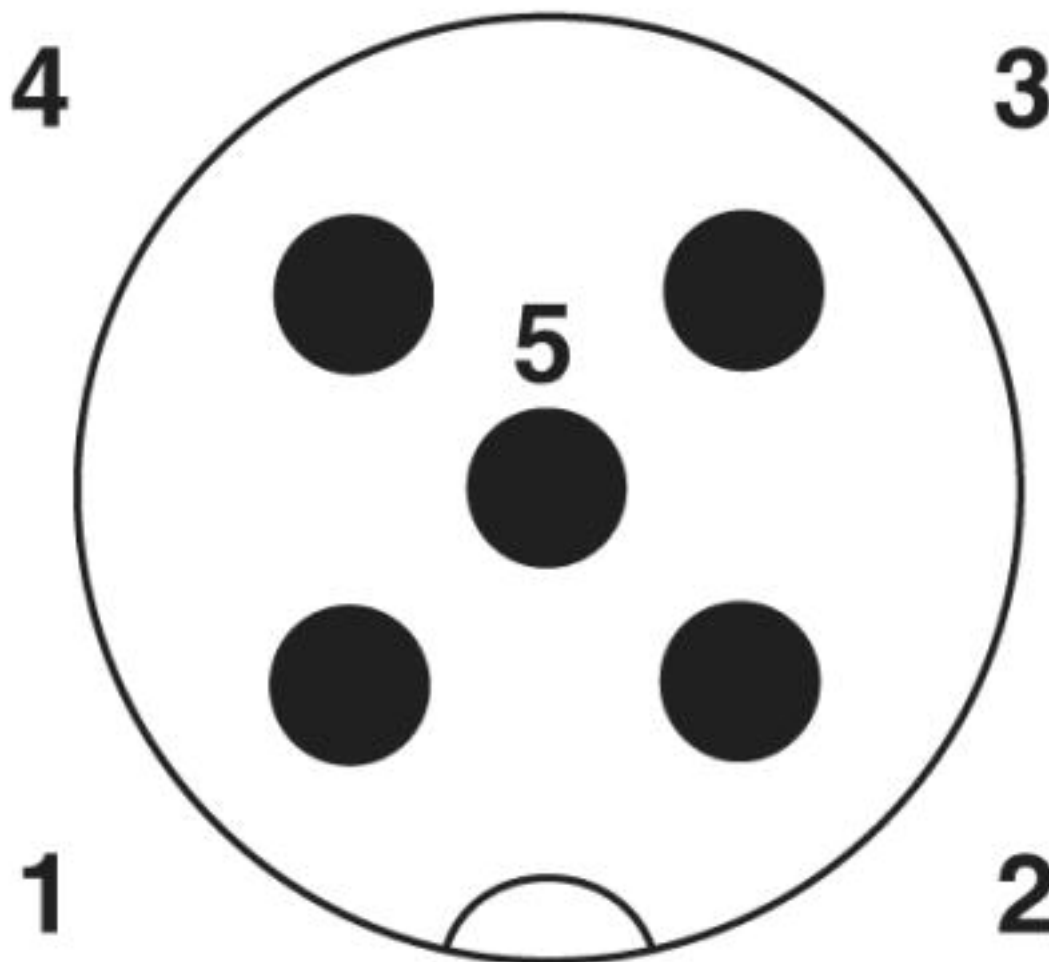
Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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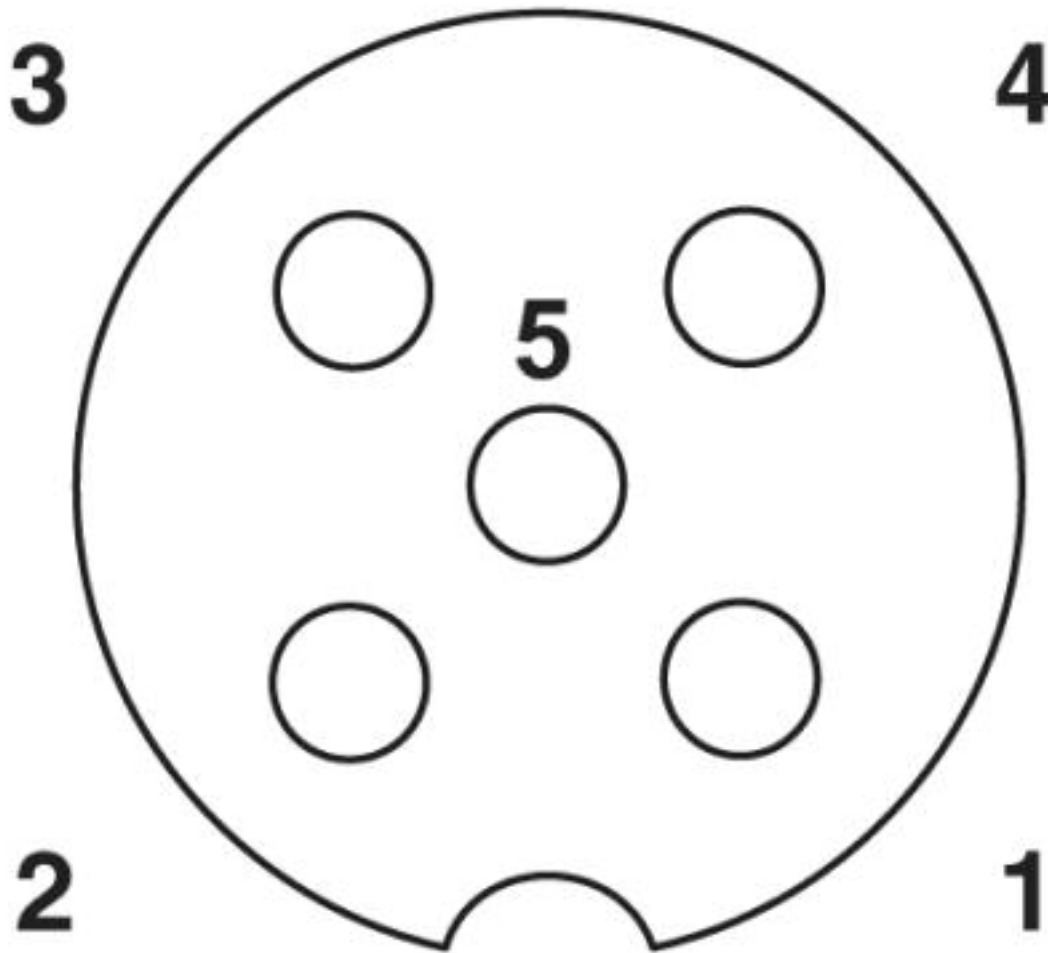
Schematic diagram



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

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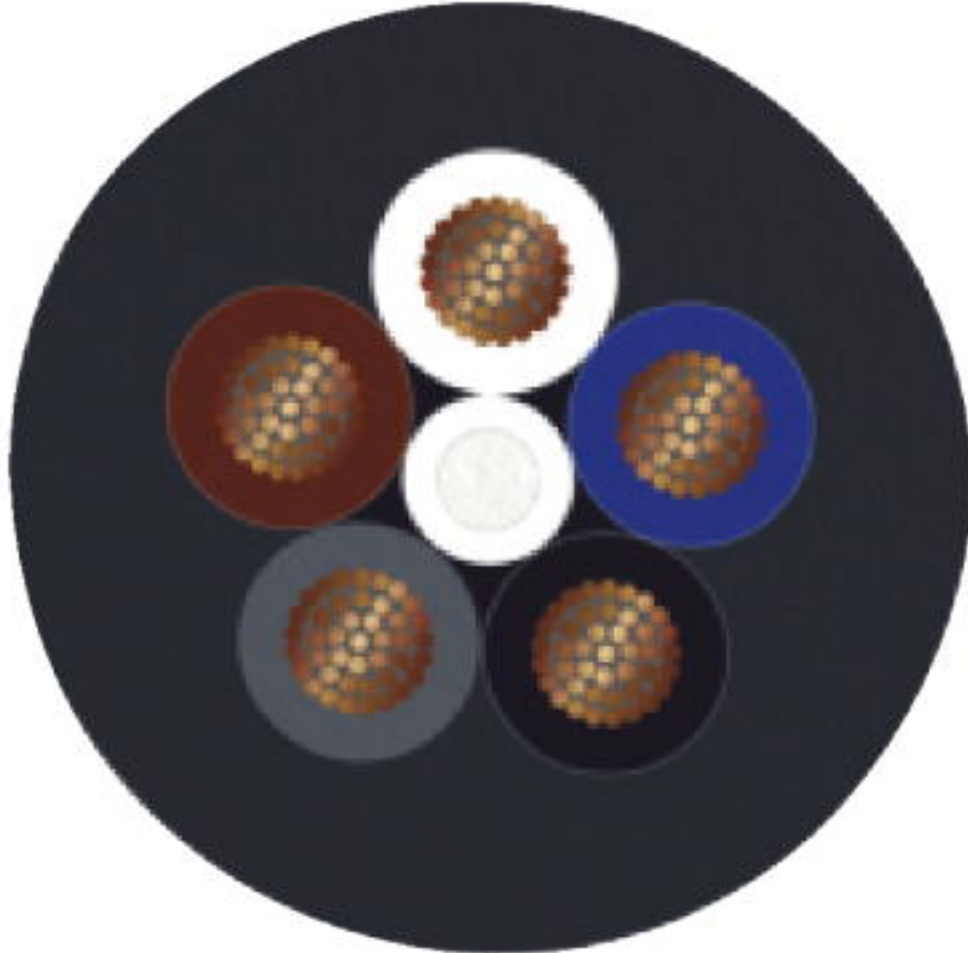
Schematic diagram



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

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Cable cross section



PE-X black [28X]

Approvals

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DNV GL / EAC


Ex Approvals

Approval details

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Approvals

DNV GL		https://approvalfinder.dnvgl.com/	TAE00002K4
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EAC			RU C- DE.BL08.B.00286
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