Sensor/Actuator cable - SAC-4P-M12MS/2,0-28X/M12FS OD - 1454105

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Sensor/Actuator cable, 4-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

package_quantity	1
GTIN	4046356568715

Technical data

Dimensions

Length of cable	2 m

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
Ambient temperature (operation)	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))
Degree of protection	IP65
Degree of protection	IP67
Degree of protection	IP68
Degree of protection	IP69K

General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Degree of pollution	3

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Technical data

General

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	4x 0.5 mm² (Signal line)
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.6 mm ±0.05 mm (Signal line)
Thickness, insulation	approx. 0.3 mm (Core insulation)
Thickness, insulation	approx. 0.6 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	61.6 mm
External sheath, color	black-gray RAL 7021
External cable diameter D	5.2 mm ±0.2 mm
Smallest bending radius, fixed installation	26 mm
Smallest bending radius, movable installation	52 mm
Number of bending cycles	2000000
Bending radius	52 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s²
Cable weight	44 kg/km
Outer sheath, material	PE-X
Material conductor insulation	PE-X

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Cable

Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Conductor resistance	≤ 39 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC
Flame resistance	According to DIN 60332-1-2
Flame resistance	According to DIN EN 50266-2-5
Flame resistance	according to IEC 60332-3-25 (bunched fire test)
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant According to DIN VDE 0276-605
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
Ambient temperature (operation)	-15 °C ... 105 °C (cable, flexible installation)

Classifications

eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

GL / EAC /

Sensor/Actuator cable - SAC-4P-M12MS/2,0-28X/M12FS OD - 1454105

Approvals

Approval details

GL s

EAC s

Accessories

Torque tool

TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



Screwdriver tools

TSD-M SAC-BIT ADAPTER - 1212600



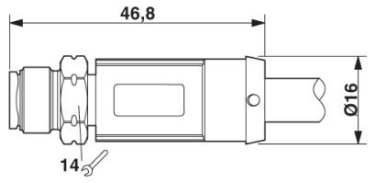
SAC BIT M12-W14 - 1212513



Drawings

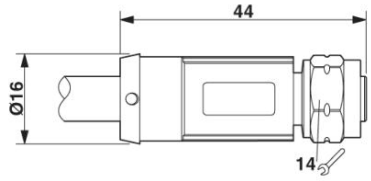
Sensor/Actuator cable - SAC-4P-M12MS/2,0-28X/M12FS OD - 1454105

Dimensional drawing



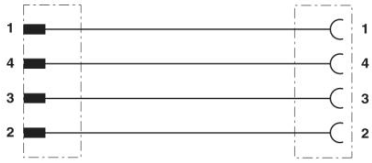
M12 x 1 plug, straight

Dimensional drawing



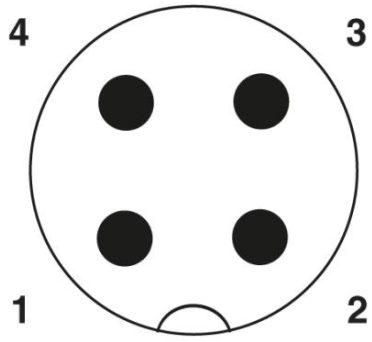
M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

Schematic diagram



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

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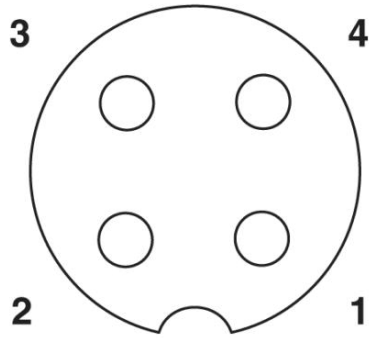
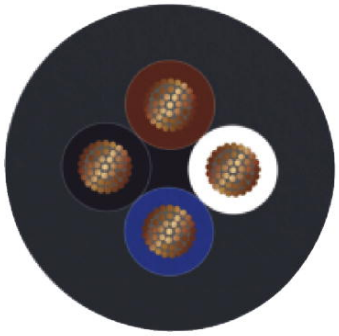
Schematic diagram



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

Cable cross section



PE-X black [28X]

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