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Sensor/actuator cable, 4-position, PE-X/PE-X halogen-free, black-gray RAL 7021, shielded, cable length: 30 m, for outdoor applications, with high-grade steel knurl

Your advantages

- 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
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	20 pc
GTIN	4 046356 835015
GTIN	4046356835015

Technical data

Dimensions

Length of cable	30 m

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))

General

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	4
Insulation resistance	\geq 100 M Ω



Technical data

General

Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	unwired
Degree of pollution	3

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-C-VI-2X
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)
	approx. 0.7 mm (Outer cable sheath)
	approx. 0.45 mm (Inner sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	108.8 mm
Shielding	Braided copper wires
Optical shield covering	85 %
External sheath, color	black-gray RAL 7021
External cable diameter D	6.8 mm ±0.2 mm
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	68 mm
Number of bending cycles	1000000
Bending radius	68 mm



Technical data

Cable

Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s²
Cable weight	74 kg/km
Outer sheath, material	PE-X
Material, inner sheath	PE-X
Material conductor insulation	PE-X
Conductor material	Bare Cu litz wires
Insulation resistance	\geq 100 M Ω *km (at 20 °C)
Conductor resistance	\leq 39 Ω /km (at 20 °C)
Cable capacity	≤ 100 nF/km (Conductor-conductor, asymmetrical/touching)
	≤ 85 nF/km (Conductor-conductor, symmetrical/star quad)
	≤ 150 nF/km (Wire/shield)
Conductor inductance	0.64 mH/km (at 1 kHz)
	0.46 mH/km (at 10 MHz)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC
Special properties	Irradiated
Flame resistance	according to DIN 60332-1-2
	according to DIN EN 50266-2-5
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)
	-15 °C 105 °C (cable, flexible installation)

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings







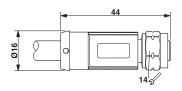
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section

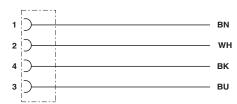


PE-X black [28X]

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 socket

Approvals

Approvals

Approvals

DNV GL

Ex Approvals

Approval details

DNV GL http://exchange.dnv.com/tari/ TAE00002K4

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