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Sensor/actuator cable, 5-position, PE-X halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, A-coded, cable length: 10 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 0 4 6 3 5 6 7 7 3 7 7 5
GTIN	4046356773775

Technical data

Dimensions

Length of cable	10 m
Ambient conditions	

Ambient temperature (operation)	-40 °C 105 °C (Plug / socket)
	-40 $^\circ\text{C}$ 85 $^\circ\text{C}$ (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	\geq 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	unwired



Technical data

General

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	
Acceleration	10 m/s ²	
Cable weight	70 kg/km	
Outer sheath, material	PE-X	



Technical data

Cable

Material, filler	PP yarn
Material conductor insulation	PE-X
Conductor material	Bare Cu litz wires
Insulation resistance	\geq 100 MΩ*km (at 20 °C)
Conductor resistance	\leq 39 Ω /m (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	\geq 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





M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 socket

Dimensional drawing





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



Cable cross section



PE-X black [28X]

Approvals

Approvals

Approvals

DNV GL / EAC

Ex Approvals

Approval details

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Approvals



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