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Sensor/actuator cable, 4-position, PUR halogen-free, welding sputter-resistant, highly flexible, gray RAL 7001, free cable end, on Socket straight M12, A-coded, cable length: 5 m, for robots and drag chains

Why buy this product

- Flexible: cable supports a high degree of torsion and bending
- Reliable solution for the body shop as cable is resistant to welding sparks



Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 327121
GTIN	4046356327121

Technical data

Dimensions

Length of cable	5 m
Stripping length of the free conductor end	50 mm

Ambient conditions

Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)	
Degree of protection	IP65	
	IP67	
	IP68	

General

Rated current at 40°C	4 A
Rated voltage	250 V AC
	250 V DC
Number of positions	4



Technical data

General

Insulation resistance	\geq 100 M Ω
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Flammability rating according to UL 94	НВ
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR

Standards and Regulations

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

Cable

Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable type	Gray, highly flexible PUR
Cable type (abbreviation)	800
Cable abbreviation	Li12YYTPE-HF
UL AWM style	20233
Conductor cross section	4x 0.34 mm² (Signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.3 mm ±0.05 mm (Signal line)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	gray RAL 7001
External cable diameter D	4.8 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	7.5 x D
Number of bending cycles	10000000
Minimum bending radius, drag chain applications	7,5 x D



Technical data

Cable

	
Traversing path	5 m
Traversing rate	3.3 m/s
Acceleration	5 m/s²
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s ²
Torsion force	± 360 °/m (1 000 000 torsion cycles)
Cable weight	33.5 kg/km
Outer sheath, material	PUR
Material conductor insulation	PES
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	approx. 53 Ω/km
Nominal voltage, cable	300 V
Test voltage, cable	2000 V
Special properties	Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing
	Free from silicone and cadmium
	Free of substances which would hinder coating with paint or varnish
Flame resistance	according to IEC 60332-1-2
	according to UL 758/1581 VW-1
	according to UL 758/1581 FT1
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	According to HD 22.10
	in accordance with DIN EN 60811-404 (external sheath)
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	Silicone-free
Ambient temperature (operation)	-40 °C 90 °C (cable, fixed installation)
	-30 °C 90 °C (cable, flexible installation)
	to 120 °C (for 3000 h)

Environmental Product Compliance

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

Drawings



Schematic diagram



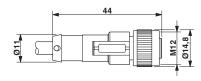
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section

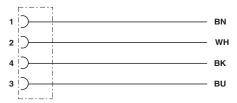


Gray, highly flexible PUR [800]

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 plug and the M12 socket

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed	UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN			300 V	
Nominal current IN			4 A	



Approvals

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EAC	EAC	EAC-Zulassung
cULus Listed	C (UL) US	

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