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as in the figure, but with a gray

Sensor/actuator cable, 4-position, Special TPE halogen-free, highly flexible, gray RAL 7001, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: 5 m



conductor

## **Key Commercial Data**

Packing unit	1 pc
Minimum order quantity	25 pc
GTIN	4 046356 327091
GTIN	4046356327091

#### Technical data

#### **Dimensions**

Length of cable		5 m	

#### Ambient conditions

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
Insulation resistance	$\geq$ 10 M $\Omega$
Coding	A - standard
Status display	No
Overvoltage category	Ш



## Technical data

### General

Degree of pollution	3
Insertion/withdrawal cycles	≥ 100

### 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

Flammability rating according to UL 94	НВ
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### 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
Traversing path	5 m
Traversing rate	3.3 m/s
Acceleration	5 m/s <sup>2</sup>
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s²
Torsion force	± 360 °/m (1 000 000 torsion cycles)



## Technical data

### Cable

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



Schematic diagram



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

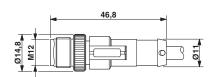
Pin assignment M12 socket, 4-pos., A-coded, view female side



Cable cross section



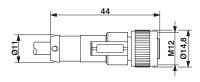
Dimensional drawing



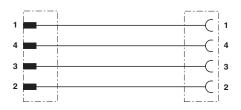
Gray, highly flexible PUR [800]

Plug, M12 x 1, straight, shielded

#### 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 / cULus Listed

Ex Approvals

### Approval details

UL Listed	LISTED	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

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 221		FILE E 221474
Nominal voltage UN			300 V	
Nominal current IN			4 A	

cULus Listed
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