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Sensor/Actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, A-coded, Cable length: 1 m



## **Key Commercial Data**

Packing unit	1 pc
Minimum order quantity	25 pc
Weight per Piece (excluding packing)	60.0 g
Custom tariff number	85444290
Country of origin	Germany

#### Technical data

#### **Dimensions**

Length of cable	1 m
Stripping length of the free conductor end	50 mm

#### Ambient conditions

Degree of protection	IP65
	IP67
	IP68

#### General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	A - standard
Status display	No
Overvoltage category	



# Technical data

#### General

Pollution degree	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

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549 / 10493 (80°C/300 V)
Conductor cross section	4x 0.34 mm²
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm ±0.02 mm
Thickness, insulation	≥ 0.21 mm
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 0.8 mm
External cable diameter D	4.7 mm ±0.15 mm
Smallest bending radius, fixed installation	23.5 mm
Smallest bending radius, movable installation	47 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	4000000
Bending radius	47 mm
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s



# Technical data

### Cable

Acceleration	10 m/s²
Cable weight	30 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 1 GΩ*km
Conductor resistance	≤ 58 Ω/km
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	Flexible
Flame resistance	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	hydrolysis and microbe resistant
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
	Low adhesion
	abrasion-resistant
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-25 °C 80 °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



## Classifications

### **ETIM**

ETIM 3.0	EC001855
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

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

## Approval details

UL Listed (II)	
Nominal current IN	4 A
Nominal voltage UN	125 V

cUL Listed **	
Nominal current IN	4 A



# Approvals

Nominal voltage UN	125 V

EAC



### **Drawings**

#### Schematic diagram



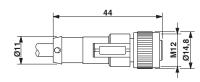
Pin assignment M12 socket, 4-pos., A-coded, view female side

#### Cable cross section

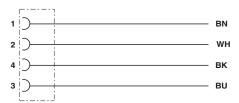


PUR halogen-free black [PUR]

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 plug and the M12 socket

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