

1456938

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Sensor/actuator cable, 4-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, free cable end, on Socket straight M12, coding: A, cable length: 1.5 m, for robots and drag chains

### Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- · Reliable solution for the body shop as cable is resistant to welding sparks

#### Commercial data

Item number	1456938
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	BF1CCA
Catalog page	Page 198 (C-2-2019)
GTIN	4046356593298
Weight per piece (including packing)	55.7 g
Weight per piece (excluding packing)	53.5 g
Customs tariff number	85444290
Country of origin	PL



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## Technical data

#### Product properties

Product type	Sensor/actuator cable
Number of positions	4
Application	Robots and drag chains
No. of cable outlets	1
Shielded	no
Coding	A
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

#### Material specifications

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

### Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V AC
	250 V DC
Nominal current I <sub>N</sub>	4 A
Protective circuit	unwired

#### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

## Signaling

Status display	No
Status display present	No

### Connection data

Conductor connection	
Tightening torque	0.4 Nm (M12 connector)

#### Connector



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#### Connection 1

Туре	free cable end
Connection 2	
Туре	Socket straight M12
Number of positions	4
Coding type	A

### Cable/line

#### Gray, highly flexible PUR [800]

Dimensional drawing



Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable weight	33.5 kg/km
UL AWM Style	20549
Number of positions	4
Shielded	no
Cable type	Gray, highly flexible PUR [800]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.3 mm ±0.05 mm (Signal line)
External cable diameter	4.80 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Overall twist	4 wires, twisted
Max. conductor resistance	approx. 53 Ω/km
Insulation resistance	≥ 20 MΩ*km
Nominal voltage, cable	300 V
Test voltage	2000 V
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	7.5 x D



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Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	36 mm
Max. bending cycles	10000000
	15000000
Torsion force	± 360 °/m
Torsion cycles	1000000
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	Silicone-free
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
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-25 °C 80 °C (Cable, flexible installation)

# Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)
	-40 °C 90 °C (cable, fixed installation)
	-30 °C 90 °C (Cable, flexible installation)
	to 120 °C (for 3000 h)
	to 80 °C (in acc. with UL)

## Standards and regulations

### M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101



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# Classifications

UNSPSC 21.0

#### **ECLASS**

ECLASS-11.0	27060311	
ECLASS-12.0	27060311	
ECLASS-13.0	27060311	
ETIM		
ETIM 9.0	EC001855	
UNSPSC		

26121600



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# Environmental product compliance

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

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