

1457241

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Sensor/actuator cable, 5-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, Plug straight M12, coding: A, connected with unwired, on free cable end, cable length: 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	1457241
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	BF1CDA
Catalog page	Page 203 (C-2-2019)
GTIN	4046356593663
Weight per piece (including packing)	183.4 g
Weight per piece (excluding packing)	183.4 g
Customs tariff number	85444290
Country of origin	PL

SAC-5P-M12MS/ 5,0-802 - Sensor/actuator cable



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Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
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	HB
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	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Protective circuit	unwired

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Signaling

Status display	No
Status display present	No

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)
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Connector

Connection 1

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Type	Plug straight M12
Number of positions	5
Coding type	A


Connection 2

Type	free cable end
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Cable/line

Cable length	5 m
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PUR halogen-free highly flexible resistant to welding sparks gray 5th conductor green/yellow [802]

Dimensional drawing	
Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable weight	38 kg/km
UL AWM Style	20549
Number of positions	5
Shielded	no
Cable type	PUR halogen-free highly flexible resistant to welding sparks gray 5th conductor green/yellow [802]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	5x 0.34 mm ² (Signal line)
Wire diameter incl. insulation	1.3 mm ±0.05 mm (Signal line)
External cable diameter	5.10 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, green-yellow
Overall twist	5 wires around filler to the core
Max. conductor resistance	approx. 53 Ω/km
Insulation resistance	≥ 20 MΩ*km
Nominal voltage, cable	300 V
Test voltage	1200 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D
Smallest bending radius, fixed installation	26 mm

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Smallest bending radius, movable installation	26 mm
Max. bending cycles	10000000
	15000000
Torsion force	± 360 °/m
Torsion cycles	1000000
Halogen-free	The cable is halogen-free
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

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

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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

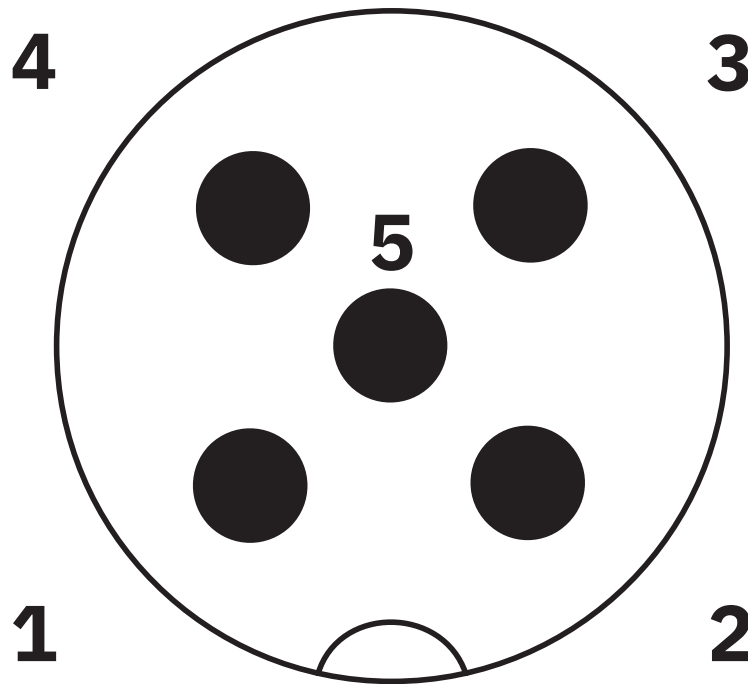
Circuit diagram



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Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

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Approvals

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	UL Listed Approval ID: FILE E 221474			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	125 V	4 A	-	-

	cUL Listed Approval ID: FILE E 221474			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	125 V	4 A	-	-

	EAC-RoHS Approval ID: RU D-DE.HB35.B.00387			

cULus Listed				
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Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	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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