

https://www.phoenixcontact.com/us/products/1518960

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: 1.5 m

### Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Save time, thanks to installation with SPEEDCON fast locking system
- Our standard: robust halogen-free PUR cable

### Commercial data

Item number	1518960
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	BF1CDA
Catalog page	Page 52 (C-4-2013)
GTIN	4017918961343
Weight per piece (including packing)	59.9 g
Weight per piece (excluding packing)	56.32 g
Customs tariff number	85444290
Country of origin	PL

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## Technical data

#### **Product properties**

Product type	Sensor/actuator cable		
Application	Standard		
Number of positions	5		
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
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

#### **Electrical properties**

Insulation resistance	≥ 10 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A
Max. conductor resistance	58 Ω/m

#### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100
Max. bending cycles	400000

### Signaling

Status display	No
Status display present	No

### Connection data

Conductor connection	
Tightening torque	0.4 Nm (M12 connector)

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### Connector

Insulation resistance Nominal voltage, cable

Smallest bending radius, fixed installation

Test voltage

Connection 1	
Туре	Plug straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	A
Connection 2	
Туре	free cable end
able/line	
Cable length	1.5 m
PUR halogen-free black [PUR] Dimensional drawing	
Cable weight	33 kg/km
UL AWM Style	20549
Number of positions	5
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	5x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.27 mm 0.05 mm (Signal line)
External cable diameter	4.55 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black, green-yellow
Thickness, insulation	approx. 0.50 mm
Max. conductor resistance	max. 58 Ω/km (at 20 °C)

≥ 16 GΩ\*km (at 20 °C)

300 V

3000 V

23 mm



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Smallest bending radius, movable installation	46 mm
Max. bending cycles	4000000
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
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
	Resistant to salt water
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	flexible
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 80 °C (cable, fixed installation)
	-5 °C 80 °C (Cable, flexible installation)

### Standards and regulations

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



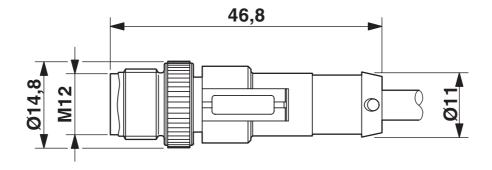
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## Drawings



Dimensional drawing



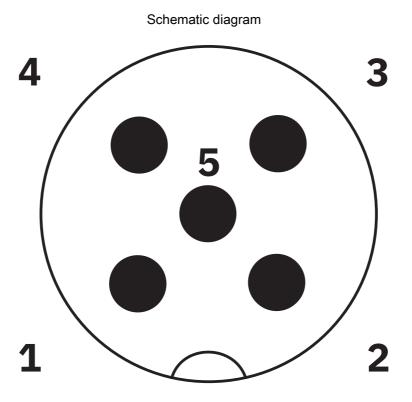
Plug, M12 x 1, straight, shielded

Circuit diagram



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



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### Approvals

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	<b>UL Listed</b> Approval ID: FILE E 221474				
		Nominal voltage U <sub>N</sub>	Nominal current $I_N$	Cross section AWG	Cross section mm <sup>2</sup>
		125 V	4 A	-	-
•	<b>CUL Listed</b> Approval ID: FILE E 221474	i -			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		Nominal voltage U <sub>N</sub> 125 V	Nominal current I <sub>N</sub> 4 A	Cross section AWG	Cross section mm <sup>2</sup>

#### cULus Listed



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## Classifications

#### ECLASS

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

### ETIM

	ETIM 8.0	EC001855			
UN	UNSPSC				
	UNSPSC 21.0	26121600			

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## Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions	
China RoHS		
Environment friendly use period (EFUP)	EFUP-E	
	No hazardous substances above the limits	
EU REACH SVHC		
REACH candidate substance (CAS No.)	No substance above 0.1 wt%	

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