

1553323

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

### Commercial data

Item number	1553323
Packing unit	5 pc
Minimum order quantity	5 pc
Sales key	BF03
Product key	AF1CDA
GTIN	4046356155175
Weight per piece (including packing)	188 g
Weight per piece (excluding packing)	167 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	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	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
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

## Electrical properties

Insulation resistance	≥ 100 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

Max. bending cycles 4000000
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## Signaling

Status display	no
Status display present	no

### Connector

### Connection 1

Туре	Plug straight M12 SPEEDCON
Number of positions	5



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Locking type	SPEEDCON
Coding type	A
Connection 2	
Туре	Socket straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	A
ble/line	
Cable length	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)
Insulation resistance	≥ 16 GΩ*km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage	3000 V
Smallest bending radius, fixed installation	23 mm
Smallest bending radius, movable installation	46 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 46 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3



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	m/s, Acceleration: 10 m/s²		
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.		
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)

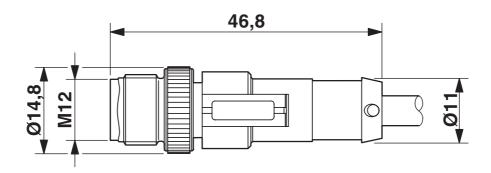


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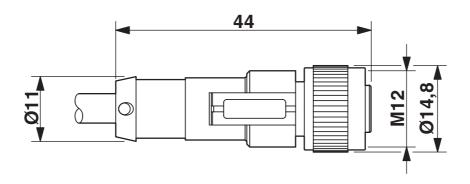
## **Drawings**

## Dimensional drawing



Plug, M12 x 1, straight, shielded

## Dimensional drawing

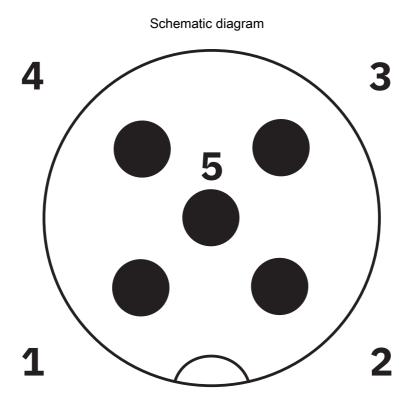


M12 x 1 socket, straight

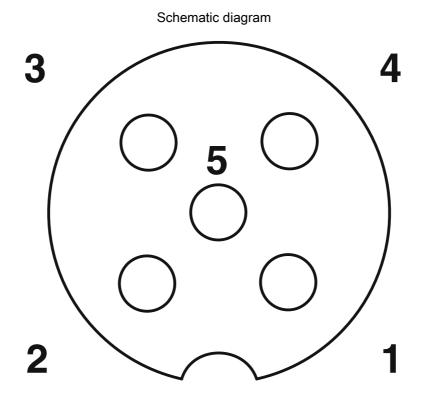


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Pin assignment M12 male connector, 5-pos., A-coded, male side



Pin assignment M12 socket, 5-pos., A-coded, socket side view



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## Circuit diagram



Contact assignment of the M12 plug and the M12 socket



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## **Approvals**

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UL Listed  Approval ID: FILE E 22:	1474			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	125 V	4 A	-	-

cUL Listed Approval ID: FILE E 22	1474			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	125 V	4 A	-	-

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

### **ECLASS**

	ECLASS-13.0	27060311			
	ECLASS-15.0	27060311			
ETIM					
	ETIM 9.0	EC001855			
UNSPSC					

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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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