

https://www.phoenixcontact.com/us/products/1500198

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Sensor/actuator cable, 3-position halogen-free, Plug straight M8, coding: A, connected with unwired, on free cable end, cable length: 1 m

### Your advantages

· Easy and safe: 100% electrically tested plug-in components

### Commercial data

Item number	1500198	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Sales key	BF01	
Product key	BF1BBA	
GTIN	4017918584832	
Weight per piece (including packing)	24.8 g	
Weight per piece (excluding packing)	23 g	
Customs tariff number	85444290	
Country of origin	DE	

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### Technical data

### **Product properties**

Product type	Sensor/actuator cable	
Number of positions	3	
Application	Standard	
No. of cable outlets	1	
Shielded	no	
Coding	A	

### Material specifications

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**

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A
Protective circuit	unwired

### Mechanical properties

	Mechanical data		
	Insertion/withdrawal cycles	≥ 100	
Si	gnaling		
	Status display	No	
	Status display present	No	

### Connection data

Conductor connection	
Tightening torque	0.2 Nm (M8 connectors)

### Connector

#### Connection 1

Туре	Plug straight M8
Number of positions	3
Coding type	A

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Number of positions	3		
Connection 2			
Туре	free cable end		
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able/line			
Cable length	1 m		
PUR halogen-free black [PUR]			
Dimensional drawing			
Cable weight	18 kg/km		
UL AWM Style	20549 / 10493 (80°C/300 V)		
Number of positions	3		
Shielded	no		
Cable type	PUR halogen-free black [PUR]		
Conductor structure signal line	32x 0.10 mm		
AWG signal line	24 3x 0.25 mm <sup>2</sup> (Signal line) 1.17 mm ±0.02 mm 3.6 mm ±0.15 mm		
Conductor cross section			
Wire diameter incl. insulation			
External cable diameter			
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, blue, black		
Thickness, insulation	≥ 0.21 mm (Core insulation)		
Thickness, outer sheath	approx. 0.5 mm		
Overall twist	3 wires, twisted		
Length of twist, overall twist	40 mm		
Max. conductor resistance	≤ 78 Ω/km (at 20 °C)		
Insulation resistance	≥ 100 GΩ*km (at 20 °C)		
Nominal voltage, cable	≤ 300 V		
Test voltage	≥ 3000 V		
Smallest bending radius, fixed installation	18 mm		
Smallest bending radius, movable installation	36 mm		
Max. bending cycles	1000000		
Halogen-free	in accordance with DIN VDE 0472 part 815		
Flame resistance	in accordance with UL 758/1581 FT2		



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	DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	hydrolysis and microbe resistant
	Highly resistant to acids, alkaline solutions and solvents
	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
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)	

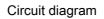
### Standards and regulations

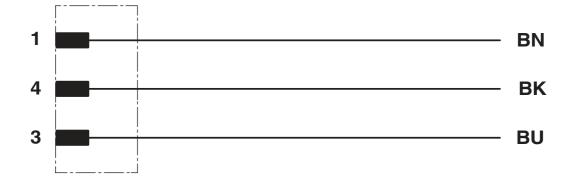
M8	
Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

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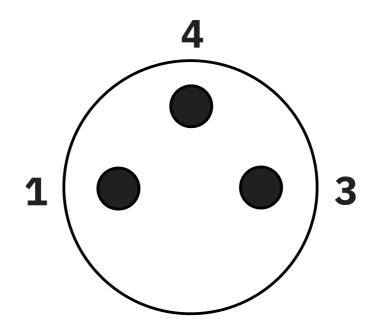
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### Drawings





Schematic diagram



Pin assignment M8 plug, 3-pos., view male side

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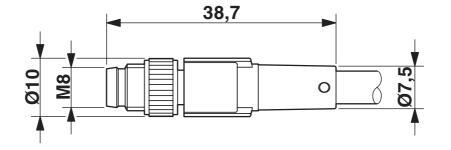




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Dimensional drawing



M8 x 1 male plug, straight version



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### Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1500198

EAC	EAC Approval ID: RU C-DE.BL08.B.00286				
Q	<b>UL Listed</b> Approval ID: FILE E 221474				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	4 A	-	-
<u>.</u>	<b>CUL Listed</b> Approval ID: FILE E 221474	4			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	4 A	-	-
EAC	EAC-RoHS Approval ID: RU D-DE.HB3	35.B.00387			

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		
UNSPSC				
	UNSPSC 21.0	26121600		

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## Environmental product compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

PROT-M 8 FS-PA-CHAIN - Sealing cap

1430857 https://www.phoenixcontact.com/us/products/1430857

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs



#### PABA WH/23 - Insert label

1013779 https://www.phoenixcontact.com/us/products/1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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PABA YE/23 - Insert label

#### 1013782

https://www.phoenixcontact.com/us/products/1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

### B-STIFT - Marker pen

1051993 https://www.phoenixcontact.com/us/products/1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5  $\rm mm$ 

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### CUTFOX-S VDE - Diagonal cutter

#### 1212207

https://www.phoenixcontact.com/us/products/1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

### WIREFOX SAC-1 - Stripping tool

1212757 https://www.phoenixcontact.com/us/products/1212757



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

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WIREFOX SAC - Stripping tool

#### 1212623

https://www.phoenixcontact.com/us/products/1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from  $\emptyset$  of 4.4 to 7 mm, any stripping length

#### WIREFOX 10 - Stripping tool

1212150 https://www.phoenixcontact.com/us/products/1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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### WP-CTA POM 13,0 BK - Protective hose adapter

#### 1422884

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Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

### WP-PA HF 13,0 BK - Protective hose

3240681 https://www.phoenixcontact.com/us/products/3240681



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

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### WP-PA HF-HB 13,0 BK - Protective hose

#### 3240839

https://www.phoenixcontact.com/us/products/3240839



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

### TSD 02 SAC - Torque screwdriver

1208487 https://www.phoenixcontact.com/us/products/1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

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SAC BIT M8-D10 - Tool

#### 1208461

https://www.phoenixcontact.com/us/products/1208461



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive

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