

1521782

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket angled M8, cable length: 5 m

Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Reliable signal transmission 360° shielding in environments with electromagnetic interference

Commercial Data

Item number	1521782
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1
Product Key	BF1BIA
Catalog Page	Page 193 (C-2-2019)
GTIN	4017918968779
Weight per Piece (including packing)	143.7 g
Weight per Piece (excluding packing)	140.3 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	3
Application	Standard
No. of cable outlets	1
Shielded	yes
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

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

Mechanical properties

Mechanical data

Signaling

Status display	No
Status display present	No

Connection data

Conductor connection

Tightening torque	0.2 Nm (M8 connectors)
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Connector

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Coding type	A
2249 1,70	• •

Cable/line

Cable length	5 m
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PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	26 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	3x 0.25 mm² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm (Signal line)
External cable diameter	4.35 mm ±0.2 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, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation)
	≥ 0.5 mm (Outer cable sheath)
Overall twist	3 wires, twisted
Optical shield covering	80 %
Max. conductor resistance	max. 79 Ω/km
Insulation resistance	≥ 100 GΩ*km
Nominal voltage, cable	300 V
Test voltage	3000 V
Smallest bending radius, fixed installation	22 mm
Smallest bending radius, movable installation	44 mm
Max. bending cycles	10000000
Halogen-free	in accordance with DIN VDE 0472 part 815



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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
	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
Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)
	-25 °C 80 °C (cable, fixed installation)
	-5 °C 80 °C (Cable, flexible installation)

Standards and regulations

Standards/specifications IEC 61076-2-104	
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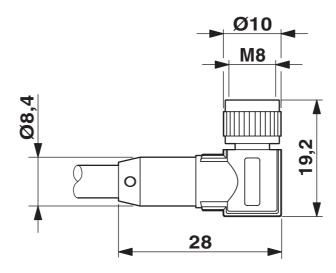


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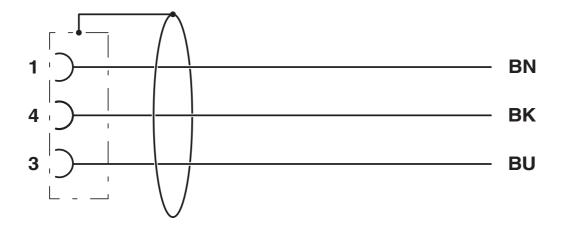
Drawings

Dimensional drawing



Socket M8 x 1, angled, shielded

Circuit diagram

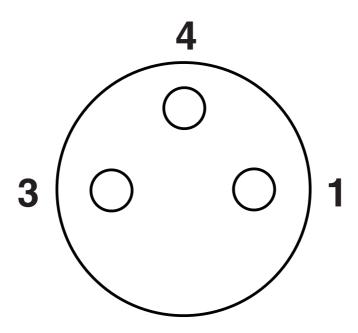




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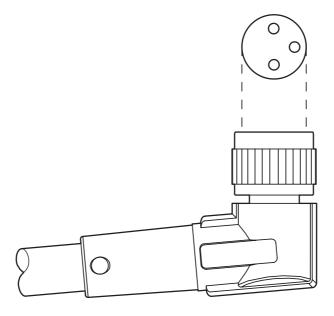
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Schematic diagram



Pin assignment M8 socket, 3-pos., view female side

Schematic diagram



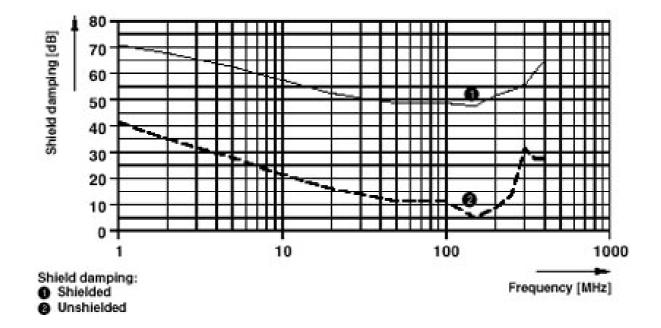
Layout of connector pin assignments



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Diagram





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Approvals

UL Listed Approval ID: FILE E 221474				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	60 V	4 A	-	-

•	cUL Listed Approval ID: FILE E 22147	74			
		Nominal Voltage U_N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		60 V	4 A	-	-

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



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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

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



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Accessories

PABA WH/23 - Insert label

1013779

https://www.phoenixcontact.com/in/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

PABA YE/23 - Insert label

1013782

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



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



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B-STIFT - Marker pen

1051993

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



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

CUTFOX-S VDE - Diagonal cutter

1212207

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



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



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WIREFOX SAC-1 - Stripping tool

1212757

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



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

WIREFOX SAC - Stripping tool

1212623

https://www.phoenixcontact.com/in/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



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WIREFOX 10 - Stripping tool

1212150

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



Stripping tool, for cables and conductors from 0.02 - $10~\text{mm}^2$, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm 2 stranded/1.5 mm 2 solid, replaceable stripping blade

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 \times 13), corrugated in parallel



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WP-PA HF 13,0 BK - Protective hose

3240681

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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

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

3240839

https://www.phoenixcontact.com/in/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



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PROT-M 8 MS-PA-CHAIN - Screw plug

1430860

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 $\ensuremath{\mathsf{M8}}$ sealing cap made of plastic with fixing band for sensor cables, for $\ensuremath{\mathsf{M8}}$ sockets



TSD 02 SAC - Torque screwdriver

1208487

https://www.phoenixcontact.com/in/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/in/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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