

1404150

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, coding: A, on Socket straight M8, coding: A, cable length: 10 m

### Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- · Save space with high-pos. connectors
- Reliable signal transmission 360° shielding in environments with electromagnetic interference

#### Commercial data

Item number	1404150
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	AF1BNA
GTIN	4046356680684
Weight per piece (including packing)	473.2 g
Weight per piece (excluding packing)	452 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	8
No. of cable outlets	1
Shielded	yes
Coding	A
Insulation characteristics	
insulation characteristics	
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

Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	30 V AC
	30 V DC
Nominal current I <sub>N</sub>	1.5 A

### Mechanical properties

Mec	hanical	data

Insertion/withdrawal cycles	≥ 100
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### Signaling

Status display	no
Status display present	no

#### Connection data

#### Conductor connection

Tightening torque	0.2 Nm (M8 connectors)

#### Connector

### Connection 1

Туре	free cable end



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Test voltage Core/Shield

Coding type	A
Connection 2	
Туре	Socket straight M8
Number of positions	8
Coding type	A
<i>-</i> ,,	
ble/line	
Cable length	10 m
PUR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	45 kg/km
UL AWM Style	20549
Number of positions	8
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	18x 0.10 mm
AWG signal line	26
Conductor cross section	8x 0.14 mm² (Signal line)
Wire diameter incl. insulation	1 mm ±0.02 mm (Signal line)
External cable diameter	5.90 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	
	black-gray RAL 7021
Conductor material	black-gray RAL 7021  Bare Cu litz wires
Conductor material Material, filler	
	Bare Cu litz wires
Material, filler	Bare Cu litz wires PE
Material, filler  Material wire insulation	Bare Cu litz wires PE PP
Material, filler  Material wire insulation  Single wire, color	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red
Material, filler  Material wire insulation  Single wire, color	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red ≥ 0.21 mm (Signal line)
Material, filler  Material wire insulation  Single wire, color  Thickness, insulation	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red  ≥ 0.21 mm (Signal line)  ≥ 0.38 mm (Outer cable sheath)
Material, filler  Material wire insulation  Single wire, color  Thickness, insulation  Overall twist	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red  ≥ 0.21 mm (Signal line)  ≥ 0.38 mm (Outer cable sheath)  8 wires around filler to the core
Material, filler  Material wire insulation  Single wire, color  Thickness, insulation  Overall twist  Length of twist, overall twist	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red  ≥ 0.21 mm (Signal line)  ≥ 0.38 mm (Outer cable sheath)  8 wires around filler to the core  58 mm
Material, filler  Material wire insulation  Single wire, color  Thickness, insulation  Overall twist  Length of twist, overall twist  Optical shield covering	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red  ≥ 0.21 mm (Signal line)  ≥ 0.38 mm (Outer cable sheath)  8 wires around filler to the core  58 mm  85 %
Material, filler  Material wire insulation  Single wire, color  Thickness, insulation  Overall twist  Length of twist, overall twist  Optical shield covering  Max. conductor resistance	Bare Cu litz wires  PE  PP  white, brown, green, yellow, gray, pink, blue, red  ≥ 0.21 mm (Signal line)  ≥ 0.38 mm (Outer cable sheath)  8 wires around filler to the core  58 mm  85 %  139 Ω/km (at 20 °C)

≥ 2000.00 V AC (for 60 s)



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Smallest bending radius, fixed installation	29.5 mm
Smallest bending radius, movable installation	59 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 59 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥1000000, Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Flame resistance	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
	Low adhesion
	abrasion-resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
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) (male connector/female connector)	-25 °C 85 °C (Plug / socket)

### Standards and regulations

#### M8

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

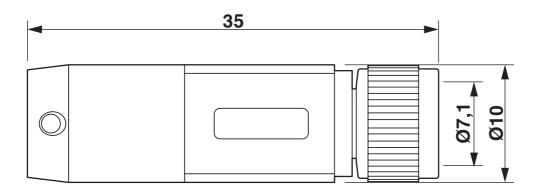


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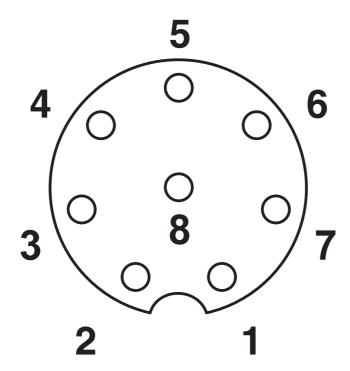
# Drawings

### Dimensional drawing



Socket M8 x 1, straight

Schematic diagram

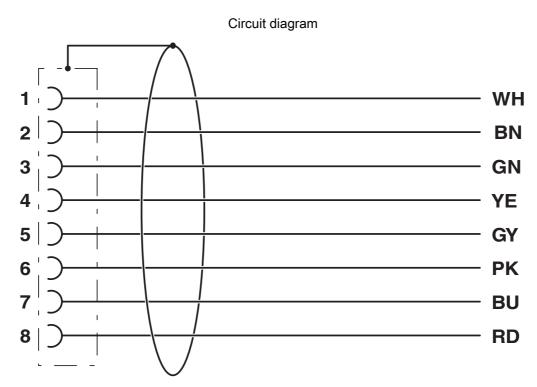


Connector pin assignment of M8 socket, 8-pos., view of socket side



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Contact assignment of M8 socket



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## **Approvals**

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<b>UL Listed</b> Approval ID: F	FILE E 221474			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	30 V	1.5 A	-	-

cUL Listed Approval ID: FILE E 22	UL Listed pproval 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>
keine				
	30 V	1.5 A	-	-

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



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## Classifications

#### **ECLASS**

	ECLASS-13.0	27060311
	ECLASS-15.0	27060311
EΊ	¬IM	
	ETIM 9.0	EC001855
U	NSPSC	
	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%
EF3.0 Climate Change	
CO2e kg	6.972 kg CO2e

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