

1694101

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M8, coding: A, cable length: 10 m

Your advantages

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

Commercial data

Item number	1694101
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	AF1BBA
GTIN	4017918177195
Weight per piece (including packing)	184.1 g
Weight per piece (excluding packing)	179.3 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Product properties

Product type	Sensor/actuator cable	
Application	Standard	
Number of positions	3	
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

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Signaling

Status display	no
Status display present	no

Connection data

Conductor connection

Tightening torque	0.2 Nm (M8 connectors)

Connector

Connection 1



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Туре	free cable end	
Connection 2		
Туре	Socket straight M8	
Number of positions	3	
Coding type	A	
ble/line		
Cable length	10 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	
Conductor cross section	3x 0.25 mm² (Signal line)	
Wire diameter incl. insulation	1.17 mm ±0.02 mm	
External cable diameter	3.60 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, blue, black	
Thickness, insulation	≥ 0.21 mm (Core insulation)	
Thickness, outer sheath	approx. 0.50 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	
•	≥ 3000 V	
Test voltage		
Test voltage Smallest bending radius, fixed installation	18 mm	
	18 mm 36 mm	



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	Traversing path: 10 m, Traversing rate: 3 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	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) (male connector/female connector)	-25 °C 90 °C (Plug / socket)

Standards and regulations

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

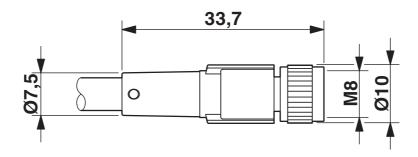


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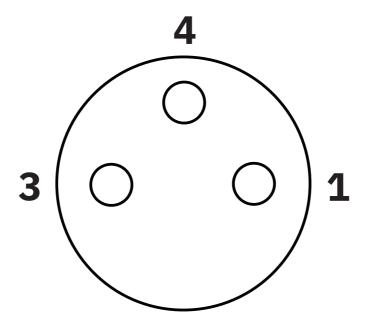
Drawings

Dimensional drawing



Socket M8 x 1, straight

Schematic diagram



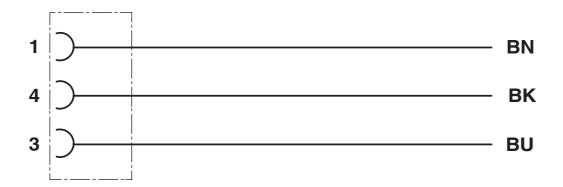
Pin assignment M8 socket, 3-pos., view female side



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Circuit diagram



Contact assignment of M8 socket



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1694101

UL Listed Approval ID: Fi	ILE E 221474			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine				
	60 V	4 A	-	-

cUL Listed Approval ID: FILE E 22	cUL Listed Approval ID: FILE E 221474				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²	
keine					
	60 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					
	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	2.534 kg CO2e

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