

1681664

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, coding: A, on free cable end, cable length: 1.5 m

Your advantages

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

Commercial data

Item number	1681664
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	02
Product key	BF1BBA
Catalog page	Page 188 (C-2-2019)
GTIN	4017918158323
Weight per piece (including packing)	34.5 g
Weight per piece (excluding packing)	31.8 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	
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

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)



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Connector

Connection 1

Туре	Plug straight M8
Number of positions	3
Coding type	A

Connection 2

Type	free cable end

Cable/line

Cable length	1.5 m
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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



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Test voltage	≥ 3000 V
Smallest bending radius, fixed installation	18 mm
Smallest bending radius, movable installation	36 mm
Max. bending cycles	10000000
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

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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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