

1500965

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Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, shielded (Tinned copper braided shield), Advanced Shielding Technology, Plug straight M12, coding: A, on Socket angled M12, coding: A, cable length: 0.3 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 | 1500965 |
|--------------------------------------|---------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF03 |
| Product key | BF1CJA |
| Catalog page | Page 199 (C-2-2019) |
| GTIN | 4017918614126 |
| Weight per piece (including packing) | 44.4 g |
| Weight per piece (excluding packing) | 50.89 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 | 4 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |
| Insulation characteristics | |
| Overvoltage category | ll |
| Degree of pollution | 3 |

Material specifications

| Flammability rating according to UL 94 | HB |
|--|---|
| 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

| , | /lechanical data | | |
|-----|-----------------------------|------------------------|--|
| | Insertion/withdrawal cycles | ≥ 100 | |
| Sig | Inaling | | |
| | Status display | No | |
| | Status display present | No | |
| Со | Connection data | | |
| (| Conductor connection | | |
| | Tightening torque | 0.4 Nm (M12 connector) | |

Connector

Connection 1



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| Туре | Plug straight M12 |
|----------------------|-------------------|
| Number of positions | 4 |
| Coding type | А |
| | |
| Connection 2 Type | Socket angled M12 |
| Connection 2 | |

Cable/line

PUR halogen-free black [PUR]

Dimensional drawing



| Cable weight | 36 kg/km |
|---------------------------------|---------------------------------|
| UL AWM Style | 20549 / 10493 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | PUR halogen-free black [PUR] |
| Conductor structure signal line | 42x 0.10 mm |
| AWG signal line | 22 |
| Conductor cross section | 4x 0.34 mm² (Signal line) |
| Wire diameter incl. insulation | 1.27 mm ±0.02 mm (Signal line) |
| External cable diameter | 4.95 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, white, blue, black |
| Thickness, insulation | ≥ 0.21 mm |
| Thickness, outer sheath | approx. 0.50 mm |
| Overall twist | 4 wires, twisted |
| Optical shield covering | 80 % |
| Max. conductor resistance | max. 58 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 100 GΩ*km (at 20 °C) |
| Wave impedance | ≥ 62 Ω (f = 10 MHz) |
| Cable capacity | ≤ 80 pF/m (Conductor-Conductor) |
| | ≤ 135 pF/m (Wire/shield) |
| | |



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| Nominal voltage, cable | ≤ 300 V |
|---|---|
| Test voltage | ≥ 3000 V |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 25 mm |
| Smallest bending radius, movable installation | 50 mm |
| Max. bending cycles | 1000000 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | in accordance with DIN EN 50267-2-1 |
| 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 |
| | Resistant to salt water |
| | partly UV-resistant (in accordance with DIN EN ISO 4892-2-A) |
| | abrasion-resistant |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| | Low adhesion surface |
| 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

| Standard designation | M12 connector |
|--------------------------|-----------------|
| Standards/specifications | IEC 61076-2-101 |

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