

SAC-3P-M12MR/ 3,0-800 - Sensor/actuator cable



1456909

<https://www.phoenixcontact.com/us/products/1456909>

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Sensor/actuator cable, 3-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, Plug angled M12, coding: A, Wiring: unwired, on free cable end, cable length: 3 m, for robots and drag chains

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Reliable solution for the body shop as cable is resistant to welding sparks

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 1456909 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF03 |
| Product key | BF1CBA |
| Catalog page | Page 192 (C-2-2019) |
| GTIN | 4046356593267 |
| Weight per piece (including packing) | 91 g |
| Weight per piece (excluding packing) | 91 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 | Robots and drag chains |
| 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 | HB |
| 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 | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 250 V AC |
| | 250 V DC |
| Nominal current I_N | 4 A |
| Protective circuit | unwired |

Mechanical properties

Mechanical data

| | |
|-----------------------------|------------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|------------|

Signaling

| | |
|------------------------|----|
| Status display | No |
| Status display present | No |

Connection data

Conductor connection

| | |
|-------------------|------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
|-------------------|------------------------|

Connector

Connection 1

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| | |
|---------------------|-----------------|
| Type | Plug angled M12 |
| Number of positions | 3 |
| Coding type | A |

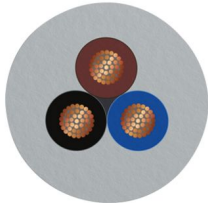
Connection 2

| | |
|------|----------------|
| Type | free cable end |
|------|----------------|

Cable/line

| | |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

Gray, highly flexible PUR [800]

| | |
|---|--|
| Dimensional drawing |  |
| Note | Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments. |
| Cable weight | 28.3 kg/km |
| UL AWM Style | 20549 |
| Number of positions | 3 |
| Shielded | no |
| Cable type | Gray, highly flexible PUR [800] |
| Conductor structure signal line | 42x 0.10 mm |
| AWG signal line | 22 |
| Conductor cross section | 3x 0.34 mm ² (Signal line) |
| Wire diameter incl. insulation | 1.3 mm ±0.05 mm (Signal line) |
| External cable diameter | 4.50 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | gray RAL 7001 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | brown, blue, black |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | approx. 53 Ω/km |
| Insulation resistance | ≥ 20 MΩ*km |
| Nominal voltage, cable | 300 V |
| Test voltage | 2000 V |
| Minimum bending radius, fixed installation | 4 x D |
| Minimum bending radius, flexible installation | 7.5 x D |
| Smallest bending radius, fixed installation | 18 mm |
| Smallest bending radius, movable installation | 34 mm |

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| | |
|---------------------------------|--|
| Max. bending cycles | 10000000 |
| | 15000000 |
| Torsion force | ± 360 °/m |
| Torsion cycles | 1000000 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| | Silicone-free |
| Special properties | Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing |
| | Free from silicone and cadmium |
| | 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) | -25 °C ... 90 °C (Plug / socket) |
| | -40 °C ... 90 °C (cable, fixed installation) |
| | -30 °C ... 90 °C (Cable, flexible installation) |
| | to 120 °C (for 3000 h) |
| | to 90 °C (in acc. with UL) |

Standards and regulations

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

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001855 |
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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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