

SAC-3P-M12MR/2,0-PVC B-L - Sensor/actuator cable



1431555

<https://www.phoenixcontact.com/us/products/1431555>

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Sensor/actuator cable, 3-position, PVC, black RAL 9005, Plug angled M12, coding: A, on free cable end, cable length: 2 m

Your advantages

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

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1431555 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF03 |
| Product key | AF1CBA |
| GTIN | 4046356506236 |
| Weight per piece (including packing) | 82.1 g |
| Weight per piece (excluding packing) | 82.1 g |
| Customs tariff number | 85444290 |
| Country of origin | CN |

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

Connector

Connection 1

| | |
|---------------------|-----------------|
| Type | Plug angled M12 |
| Number of positions | 3 |

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| | |
|-------------|---|
| Coding type | A |
|-------------|---|

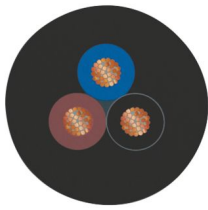
Connection 2

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

Cable/line

| | |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|

PVC black [PVC]

| | |
|---|--|
| Dimensional drawing |  |
| Cable weight | 40 kg/km |
| UL AWM Style | 2464 / 1729 (80°C/300 V) |
| Number of positions | 3 |
| Shielded | no |
| Cable type | PVC black [PVC] |
| 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 | 1.45 mm ±0.02 mm |
| External cable diameter | 5.20 mm ±0.2 mm |
| Outer sheath, material | PVC |
| External sheath, color | black RAL 9005 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PVC |
| Single wire, color | brown, blue, black |
| Thickness, insulation | ≥ 0.23 mm (Core insulation) |
| Thickness, outer sheath | ≥ 0.76 mm |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | max. 58 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 100 MΩ*km (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage | ≥ 2500 V |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 26 mm |
| Smallest bending radius, movable installation | 52 mm |
| Flame resistance | As per UL-Style 2464 |
| Resistance to oil | according to DIN EN 60811-2-1, 168 h at 90 °C |

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| | |
|---------------------------------|---|
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -25 °C ... 80 °C (Cable, flexible installation) |

Environmental and real-life conditions

Ambient conditions

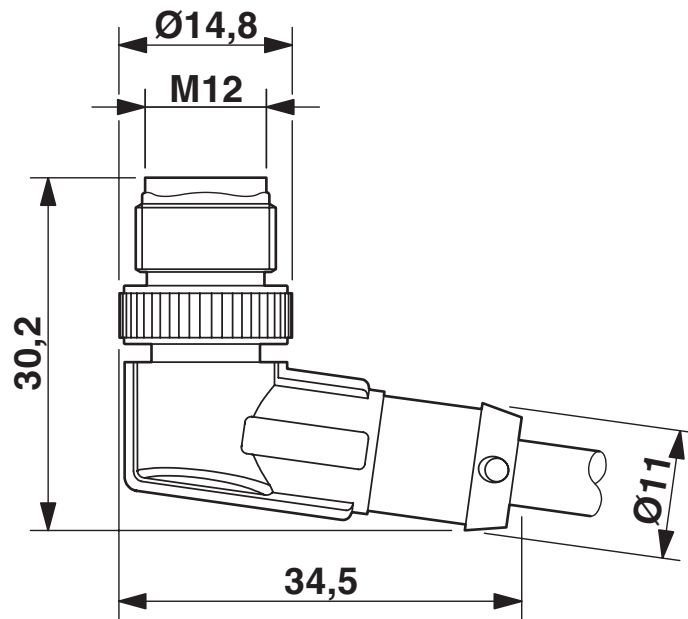
| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket) |
| Ambient temperature (operation) (Cable, fixed installation) | -40 °C ... 80 °C (cable, fixed installation) |
| Ambient temperature (operation) (Cable, flexible installation) | -25 °C ... 80 °C (Cable, flexible installation) |

Standards and regulations

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

Drawings

Dimensional drawing



M12 x 1 male plug, angled

Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side

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Circuit diagram



Contact assignment of the M12 plug

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
| ECLASS-15.0 | 27060311 |

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Environmental product compliance

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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