

SAC-3P-M12MS/ 3,0-150/M12FR-2L - Sensor/actuator cable



1546602

<https://www.phoenixcontact.com/us/products/1546602>

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Sensor/actuator cable, 3-position, PUR halogen-free, irradiated, orange RAL 2003, Plug straight M12, coding: A, with 2 LEDs, on Socket angled M12, coding: A, with 2 LEDs, cable length: 3 m

As shown in the illustration but with an orange conductor

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1546602 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | AF1CBA |
| GTIN | 4046356128735 |
| Weight per piece (including packing) | 95.4 g |
| Weight per piece (excluding packing) | 95.4 g |
| Country of origin | PL |

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Technical data

Product properties

| | |
|----------------------|-----------------------|
| Product type | Sensor/actuator cable |
| 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 |
| 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 | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 24 V |
| Nominal current I_N | 4 A |

Mechanical properties

Mechanical data

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

Signaling

| | |
|------------------------|--------|
| Status display | 2 LEDs |
| Status display present | yes |

Connector

Connection 1

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

Connection 2

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

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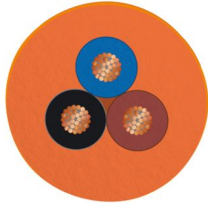
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| | |
|-------------|---|
| Coding type | A |
|-------------|---|

Cable/line

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

PUR irradiated halogen-free orange [150]

| | |
|---|---|
| Dimensional drawing |  |
| Number of positions | 3 |
| Shielded | no |
| Cable type | PUR irradiated halogen-free orange [150] |
| 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 | 1.05 mm ±0.05 mm (Signal line) |
| External cable diameter | 4.40 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | orange RAL 2003 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PE |
| Single wire, color | brown, blue, black |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | max. 57 Ω/km |
| Nominal voltage, cable | 250 V (AC) |
| Test voltage | 2000 V (50 Hz, 5 minutes) |
| Smallest bending radius, fixed installation | 13.5 mm |
| Smallest bending radius, movable installation | 53 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 5000000, Bending radius: 44 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ² |
| Flame resistance | according to DIN VDE 0472 Part 804 |
| Other resistance | UV resistant |
| Special properties | Silicone-free Irradiated |
| Ambient temperature (operation) | -50 °C ... 105 °C (cable, fixed installation) -40 °C ... 105 °C (Cable, flexible installation) |

Environmental and real-life conditions

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Ambient conditions

| | |
|---------------------------------|--|
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| | -50 °C ... 105 °C (cable, fixed installation) |
| | -40 °C ... 105 °C (Cable, flexible installation) |

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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Socket M12 x 1, angled, with LED

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Schematic diagram



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

Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

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Circuit diagram



Contact assignment of M12 plugs / sockets with 3 LEDs

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Approvals

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|  UL Listed Approval ID: FILE E 221474 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 24 V | 4 A | - | - |

|  cUL Listed Approval ID: FILE E 221474 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 24 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% |
|-------------------------------------|----------------------------|

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