

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable



1546628

<https://www.phoenixcontact.com/us/products/1546628>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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: 7.5 m

As shown in the illustration but with an orange conductor

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1546628 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | AF1CBA |
| GTIN | 4046356128759 |
| Weight per piece (including packing) | 211.4 g |
| Weight per piece (excluding packing) | 206.1 g |
| Country of origin | PL |

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable



1546628

<https://www.phoenixcontact.com/us/products/1546628>

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 |

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable



1546628

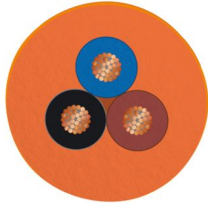
<https://www.phoenixcontact.com/us/products/1546628>

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

Cable/line

| | |
|--------------|-------|
| Cable length | 7.5 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

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable



1546628

<https://www.phoenixcontact.com/us/products/1546628>

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) |

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable

1546628

<https://www.phoenixcontact.com/us/products/1546628>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Socket M12 x 1, angled, with LED

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable

1546628

<https://www.phoenixcontact.com/us/products/1546628>

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

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable

1546628

<https://www.phoenixcontact.com/us/products/1546628>

Circuit diagram



Contact assignment of M12 plugs / sockets with 3 LEDs

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable



1546628

<https://www.phoenixcontact.com/us/products/1546628>

Classifications

ECLASS

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

SAC-3P-M12MS/ 7,5-150/M12FR-2L - Sensor/actuator cable



1546628

<https://www.phoenixcontact.com/us/products/1546628>

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% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com