

Sensor/actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FS - 1683552


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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M8, cable length: 1 m

RoHS

Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 017918 333607 |
| GTIN | 4017918333607 |
| Sales Key | 02 |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 1 m |
|-----------------|-----|

Ambient conditions

| | |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |

General

| | |
|-----------------------|-------------------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 48 V AC |
| | 60 V DC |
| Number of positions | 3 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| | M8 connector IEC 61076-2-104 |
| Status display | No |

Sensor/actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FS - 1683552

Technical data

General

| | |
|------------------------------|------------------------|
| Protective circuit/component | unwired |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

| | |
|--|---|
| Flammability rating according to UL 94 | HB |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Material, knurls | Zinc die-cast, nickel-plated |
| Sealing material | NBR |

Standards and Regulations

| | |
|--|-----------------|
| Standard designation | M12 connector |
| Standards/regulations | IEC 61076-2-101 |
| Standard designation | M8 connector |
| Standards/regulations | IEC 61076-2-104 |
| Flammability rating according to UL 94 | HB |

Cable

| | |
|---|-----------------------------|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| UL AWM style | 20549 |
| Conductor cross section | 3x 0.25 mm ² |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm ±0.02 mm |
| Thickness, insulation | ≥ 0.21 mm (Core insulation) |
| Wire colors | brown, blue, black |
| Overall twist | 3 wires, twisted |
| Length of twist, overall twist | 40 mm |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 0.5 mm |
| External cable diameter D | 3.6 mm ±0.15 mm |
| Smallest bending radius, fixed installation | 18 mm |
| Smallest bending radius, movable installation | 36 mm |
| Number of bending cycles | 10000000 |
| Bending radius | 44 mm |

Sensor/actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FS - 1683552

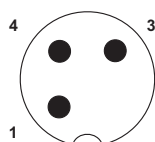
Technical data

Cable

| | |
|---------------------------------|---|
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Cable weight | 18 kg/km |
| Outer sheath, material | PUR |
| Material conductor insulation | PP |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | ≥ 100 GΩ*km (at 20 °C) |
| Conductor resistance | ≤ 78 Ω/km (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage, cable | ≥ 3000 V |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| | DIN EN 60332-2-2 (20 s) |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | hydrolysis and microbe resistant |
| | Highly resistant to acids, alkaline solutions and solvents |
| | Resistant to salt water |
| | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -25 °C ... 80 °C (cable, flexible installation) |

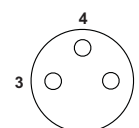
Drawings

Schematic diagram



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

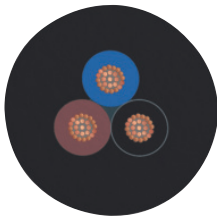
Schematic diagram



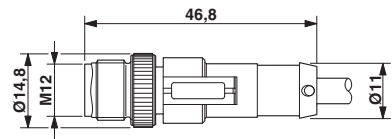
Pin assignment M8 socket, 3-pos., view female side

Sensor/actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FS - 1683552

Cable cross section



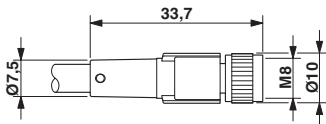
Dimensional drawing



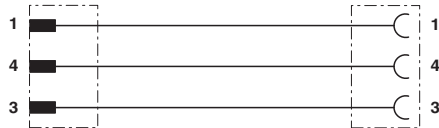
PUR halogen-free black [PUR]

Plug, M12 x 1, straight, shielded

Dimensional drawing



Circuit diagram



Socket M8 x 1, straight

Contact assignment of M12 plugs / M8 sockets

Approvals


Approvals

Approvals

UL Listed / cUL Listed / cULus Listed


Ex Approvals

Approval details

| | | | |
|--------------------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
| Nominal voltage UN | | 60 V | |
| Nominal current IN | | 4 A | |

Sensor/actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FS - 1683552

Approvals

| | | | |
|--------------------|---|---|---------------|
| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
| Nominal voltage UN | | 60 V | |
| Nominal current IN | | 4 A | |

| | |
|--------------|---|
| cULus Listed |  |
|--------------|---|

Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Phoenix Contact:](#)

[1683552](#)