


Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH NC - 1416870

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, 4-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket straight M12, A-coded, cable length: 20 m, Shield not connected to knurl

Key Commercial Data

| | |
|------------------------|--|
| Packing unit | 1 pc |
| Minimum order quantity | 50 pc |
| GTIN |  4 055626 076591 |
| GTIN | 4055626076591 |

Technical data

Dimensions

| | |
|--|-------|
| Length of cable | 20 m |
| Stripping length of the free conductor end | 50 mm |

General

| | |
|-----------------------------|----------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 250 V AC 250 V DC |
| Number of positions | 4 |
| Insulation resistance | ≤ 10 MΩ |
| Coding | A - standard |
| Status display | No |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | ≥ 100 |

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 |

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH NC - 1416870

Technical data

Material

| | |
|------------------|------------------------------|
| Material, knurls | Zinc die-cast, nickel-plated |
| Sealing material | NBR |

Standards and Regulations

| | |
|--|----|
| Flammability rating according to UL 94 | HB |
|--|----|

Cable

| | |
|---|---------------------------------------|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y-V1-C-V1-11Y |
| UL AWM style | 20549 / 10493 (80°C/300 V) |
| Conductor cross section | 4x 0.34 mm ² (Signal line) |
| AWG signal line | 22 |
| Conductor structure signal line | 42x 0.10 mm |
| Core diameter including insulation | 1.27 mm ±0.02 mm (Signal line) |
| Thickness, insulation | ≥ 0.21 mm |
| Wire colors | brown, white, blue, black |
| Overall twist | 4 wires, twisted |
| Shielding | Tinned copper braided shield |
| Optical shield covering | 85 % |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 1 mm |
| External cable diameter D | 5.9 mm ±0.2 mm |
| Smallest bending radius, fixed installation | 29.5 mm |
| Smallest bending radius, movable installation | 59 mm |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 2000000 |
| Bending radius | 59 mm |
| Minimum bending radius, drag chain applications | 10 x D |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Cable weight | 46 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 | max. 58 Ω/km (at 20 °C) |
| Cable capacity | ≤ 80 pF/m (Conductor-Conductor) |
| | ≤ 135 pF/m (Wire/shield) |
| Wave impedance | ≥ 62 Ω (f = 10 MHz) |

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH NC - 1416870

Technical data

Cable

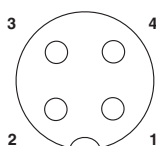
| | |
|---------------------------------|---|
| Conductor inductance | approx. 0.75 mH/km (f = 1 kHz) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage, cable | ≥ 3000 V |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| | Low adhesion surface |
| Flame resistance | in acc. with UL FT-2 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | in accordance with DIN EN 50267-2-1 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| | hydrolysis and microbe resistant |
| | Resistant to salt water |
| | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| | abrasion-resistant |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -25 °C ... 80 °C (cable, flexible installation) |

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

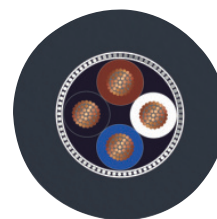
Drawings

Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

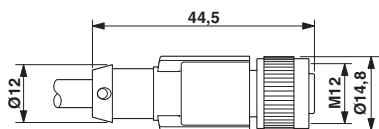
Cable cross section



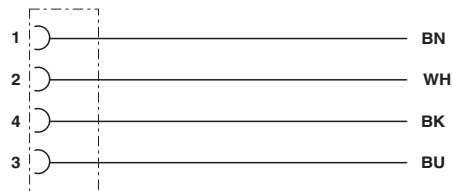
PUR halogen-free black [PUR]

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH NC - 1416870

Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 socket

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:](#)

[1416870](#)