

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

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



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| Minimum order quantity | 5 pc |
| GTIN |  4 017918 924683 |
| GTIN | 4017918924683 |
| Weight per Piece (excluding packing) | 788.000 g |
| Custom tariff number | 85444290 |
| Country of origin | Poland |

Technical data

Dimensions

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

Ambient conditions

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

General

| | |
|-----------------------|---------|
| Rated current at 40°C | 4 A |
| Rated voltage | 48 V AC |

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

Technical data

General

| | |
|-----------------------------|--------------|
| | 60 V DC |
| Number of positions | 4 |
| Insulation resistance | ≥ 100 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 |
| 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 | 80 % |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 0.5 mm |
| External cable diameter D | 4.95 mm ±0.2 mm |
| Minimum bending radius, fixed installation | 5 x D |

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

Technical data

Cable

| | |
|---|---|
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 10000000 |
| 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 | 36 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) |
| 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 accordance with UL 758/1581 FT2 |
| | DIN EN 60332-2-2 (20 s) |
| 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 |
|------------|---|

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

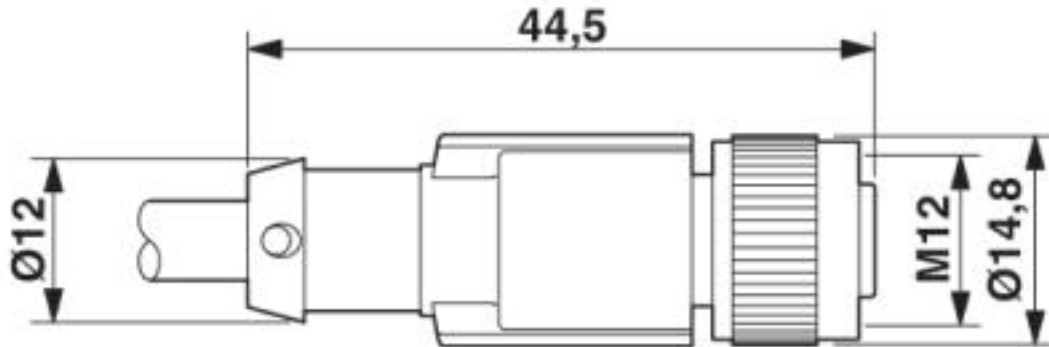
Technical data

Environmental Product Compliance

| | |
|--|--|
| | No hazardous substances above threshold values |
|--|--|

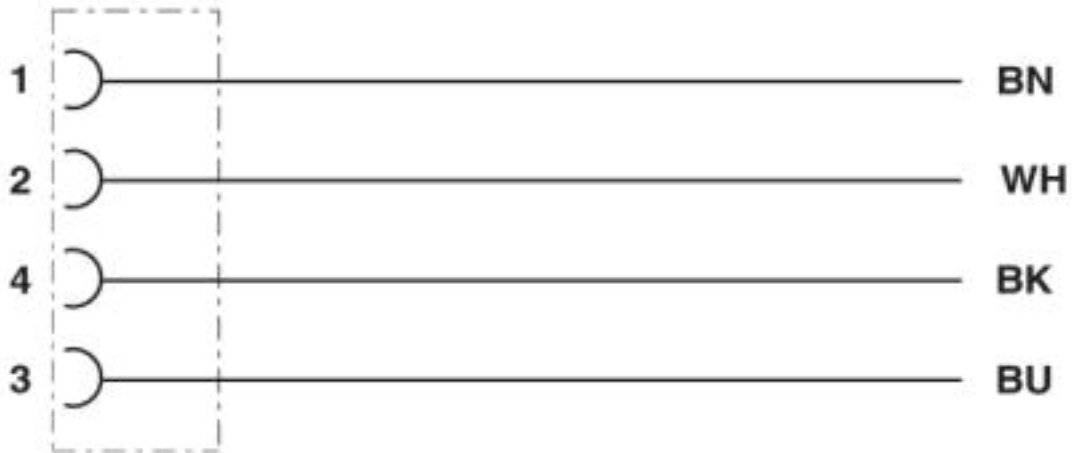
Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded

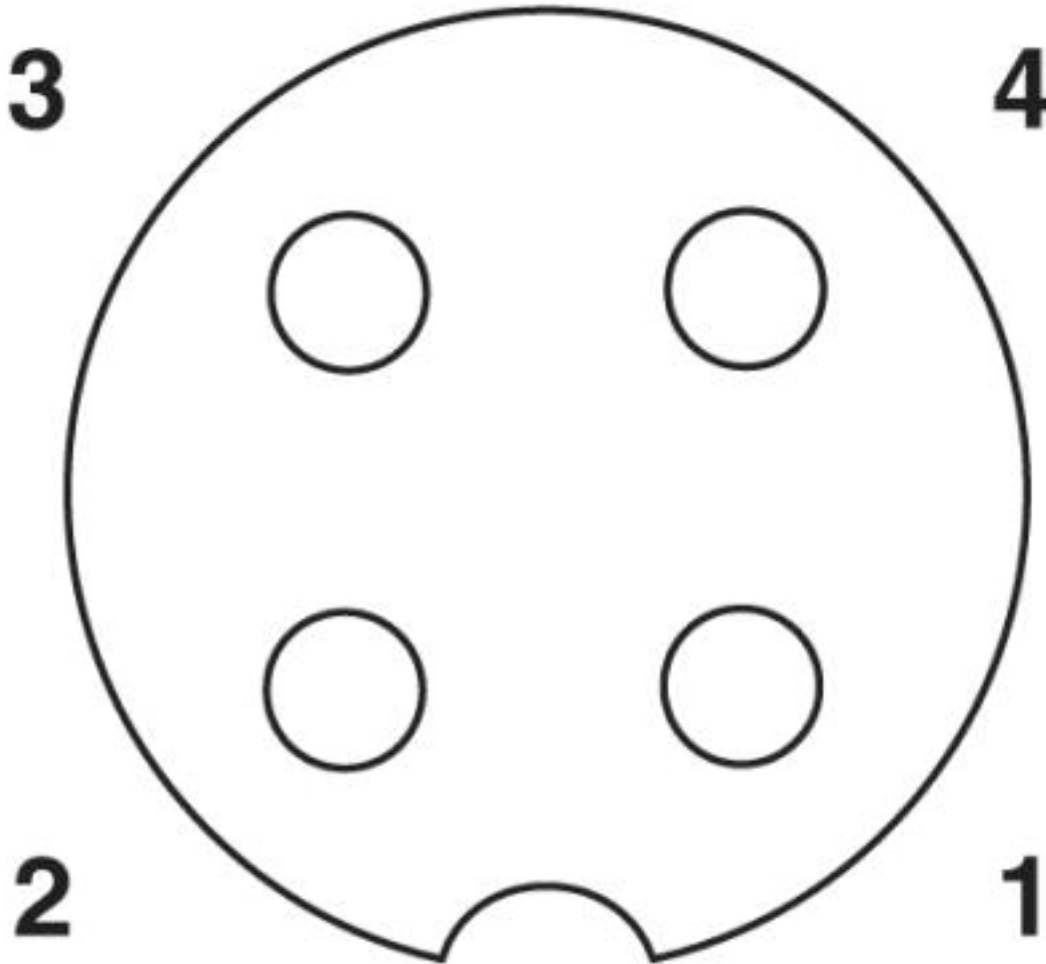
Circuit diagram



Contact assignment of the M12 socket

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

Schematic diagram



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

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

Cable cross section



PUR halogen-free black [PUR]

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27060300 |
| eCl@ss 4.1 | 27060300 |
| eCl@ss 5.0 | 27061800 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 9.0 | 27060311 |
|------------|----------|

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |
| UNSPSC 19.0 | 31251501 |
| UNSPSC 20.0 | 31251501 |
| UNSPSC 21.0 | 31251501 |

Approvals


Approvals

Approvals

UL Listed / cUL Listed / EAC / 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 | 300 V | | |
| Nominal current IN | 4 A | | |

Sensor/actuator cable - SAC-4P-20,0-PUR/M12FS SH - 1515112

Approvals

| | | | |
|--------------------|---|---|---------------|
| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
| Nominal voltage UN | | 300 V | |
| Nominal current IN | | 4 A | |

| | | |
|-----|---|--------------------------|
| EAC |  | RU C- DE.BL08.B.00286 |
|-----|---|--------------------------|

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