

Sensor/Actuator cable - SAC-4P-M 8MS/3,0-PUR/M 8FR - 1682210

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Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M8, on Socket angled M8, Cable length: 3 m

Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable



Key commercial data

| | |
|----------------------|----------|
| Packing unit | 1 1 |
| Custom tariff number | 85444290 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 3 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 | 30 V |
| Number of positions | 4 |
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |

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Technical data

General

| | |
|------------------------------|------------------------------|
| Standards/regulations | M8 connector IEC 61076-2-104 |
| Status display | No |
| Protective circuit/component | Unwired |
| Surge voltage category | II |
| Pollution degree | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.2 Nm (M8 connectors) |

Material

| | |
|---|---|
| Inflammability class 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 |

Cable

| | |
|---|---------------------------------------|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| Conductor cross section | 4x 0.25 mm ² (signal line) |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm ±0.02 mm (signal line) |
| Thickness, insulation | ≥ 0.21 mm (Core insulation) |
| | approx. 0.7 mm (Outer cable sheath) |
| Wire colors | brown, white, blue, black |
| Overall twist | 4 wires, twisted |
| External sheath, color | RAL 9005 (black gray) |
| External cable diameter D | 4.4 mm ±0.15 mm |
| Smallest bending radius, fixed installation | 22 mm |
| Smallest bending radius, movable installation | 44 mm |
| Number of bending cycles | 4000000 |
| Bending radius | 44 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 5 m/s ² |

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Technical data

Cable

| | |
|---------------------------------|---|
| Cable weight | 25 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. 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 DIN UL-Style 20549 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| 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 |
| | 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) |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27061801 |

ETIM

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

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Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |

Approvals

Approvals


Approvals


UL Listed / cUL Listed / GOST / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| | |
|---|-------|
| UL Listed  | |
| Nominal current IN | 4 A |
| Nominal voltage UN | 125 V |

| | |
|--|-------|
| cUL Listed  | |
| Nominal current IN | 4 A |
| Nominal voltage UN | 125 V |

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Approvals



Accessories

Accessories

Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Marker carrier cable

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Accessories

Conductor marker carrier - PATO 2/15 - 1013122



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 2.8-4.4 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATO 3/15 - 1013135



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 4.4-6.7 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATO 4/15 - 1013148



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 6.7-10 mm, Lettering field: 4 x 15 mm

Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Protective cap

Sealing cap - PROT-M 8 FS-PA-CHAIN - 1430857



M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs

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Accessories

Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets



Screwdriver tools

Tool - SAC BIT M8-D10 - 1208461



Nut for assembling sensor/actuator cables with M8 connector and for M8 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

Torque tool

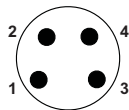
Torque screwdriver - TSD 02 SAC - 1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

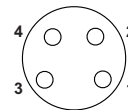
Drawings

Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

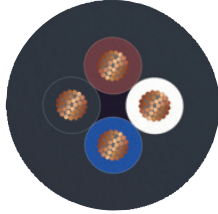
Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

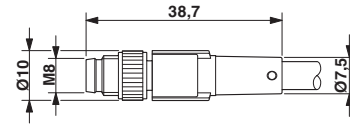
Sensor/Actuator cable - SAC-4P-M 8MS/3,0-PUR/M 8FR - 1682210

Cable cross section



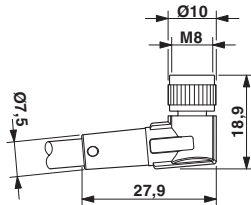
PUR halogen-free black [PUR]

Dimensioned drawing



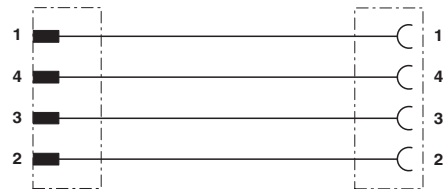
M8 x 1 male plug, straight version

Dimensioned drawing



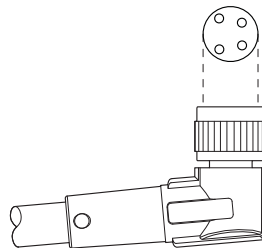
Socket M8 x 1, angled

Circuit diagram



Contact assignment of M8 plugs/sockets

Schematic diagram



Layout of connector pin assignments