

Sensor/Actuator cable - SAC-4P- 3,0-PUR/M12FS P - 1442489

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Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Socket straight M12, A-coded, Cable length: 3 m, with plastic knurl

Key commercial data

| | |
|------------------------|--|
| Packing unit | 0 |
| Minimum order quantity | 1 |
| Catalog page | Page 132 (PC-2011) |
| GTIN |  4 046356 535137 |
| Custom tariff number | 85444290 |
| Country of origin | POLAND |

Technical data

General data

| | |
|--|--|
| Rated current at 40°C | 4 A |
| Rated voltage | 250 V |
| Number of positions | 4 |
| Volume resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Length of cable | 3 m |
| Stripping length of the free conductor end | 50 mm |
| Ambient temperature (operation) | -25 °C ... 90 °C (Male connector / female connector) |

General characteristics

| | |
|-----------------------------|-------------------------------|
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Coding | A - standard |
| Surge voltage category | II |
| Pollution degree | 3 |
| Degree of protection | IP65/IP68/IP69K |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |

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Technical data

General characteristics

| | |
|-----------------------|---|
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Material, knurls | Polyamide |
| Sealing material | NBR |
| Status display | No |

Conductor data

| | |
|---|---|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| UL AWM Style | 20549 |
| 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 (Core insulation) |
| Thickness, insulation | ≥ 0.8 mm (Outer cable sheath) |
| External cable diameter | 4.7 mm ±0.15 mm |
| Wire colors | brown, white, blue, black |
| External sheath, color | Black-gray RAL 7021 |
| Insulation resistance | ≥ 1 GΩ*km |
| Conductor resistance | max. 58 Ω/km (at 20 °C) |
| Nominal voltage, conductor | ≤ 300 V |
| Test voltage, conductor | ≥ 3000 V |
| Overall twist | 4 wires, twisted |
| Length of twist, overall twist | 49.5 mm |
| Outer sheath, material | PUR |
| Material conductor insulation | PP |
| Conductor material | Bare Cu litz wires |
| Cable weight | 30 kg/km |
| Smallest bending radius, fixed installation | 23.5 mm |
| Smallest bending radius, movable installation | 47 mm |
| Number of bending cycles | 4000000 |
| Bending radius | 47 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| Ambient temperature (operation) | -25 °C ... 80 °C (cable, flexible installation) |
| Special properties | Flexible cable conduit capable |
| Special properties | Silicone-free |
| Special properties | Free of substances which would hinder coating with paint or varnish |
| Special properties | Flexible |
| Flame resistance | in accordance with DIN UL-Style 20549 |

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| | |
|-------------------|--|
| Flame resistance | in accordance with FT1 as per UL 758 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Halogen-free | 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 |
| Other resistance | hydrolysis and microbe resistant |
| Other resistance | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |

Classifications

eclass

| | |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27279218 |
| eCl@ss 7.0 | 27279218 |

etim

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

unspsc

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

Approvals

Approvals

Approvals

GOST

Ex Approvals

Approvals submitted

Sensor/Actuator cable - SAC-4P- 3,0-PUR/M12FS P - 1442489

Approvals

Approval details



Accessories

Accessories

Fuse

Fuse clip - SAC-M12-EXCLIP-F - 1558991



Fuse clip for the socket side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

Marking

Insert label - PABA WH/15 - 1013151



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

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Accessories

Conductor marker carrier - PATG 2/23 - 1013850



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 2-4 mm, Lettering field: 4 x 23 mm

Conductor marker carrier - PATG 3/23 - 1013863



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 4-7 mm, Lettering field: 4 x 23 mm

Conductor marker carrier - PATG 4/23 - 0808011



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 6-10 mm, Lettering field: 4 x 23 mm

Marker pen - B-STIFT - 1051993



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

Protection and sealing elements

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



Tools

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Accessories

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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Accessories

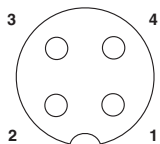
Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

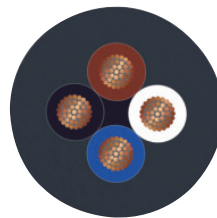
Drawings

Schematic diagram



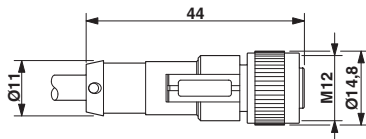
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



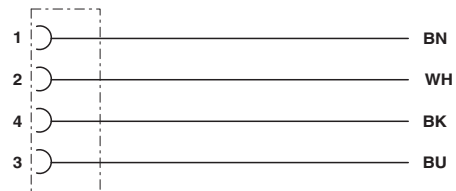
PUR halogen-free black [PUR]

Dimensioned drawing



M12 x 1 female connector, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket