

Sensor/actuator cable - SAC-5P-M12MS/ 0,6-802/M12FS - 1454561

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Sensor/actuator cable, 5-position, PUR halogen-free, welding sputter-resistant, highly flexible, gray RAL 7001, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: 0.6 m, for robots and drag chains

Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Flexible: cable supports a high degree of torsion and bending
- ✓ Reliable solution for the body shop as cable is resistant to welding sparks

Key Commercial Data

| | |
|----------------------|---|
| Packing unit | 1 STK |
| GTIN |  4 046356 578257 |
| GTIN | 4046356578257 |
| Custom tariff number | 85444290 |
| Country of origin | Poland |

Technical data

Dimensions

| | |
|-----------------|-------|
| Length of cable | 0.6 m |
|-----------------|-------|

Ambient conditions

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

General

Sensor/actuator cable - SAC-5P-M12MS/ 0,6-802/M12FS - 1454561

Technical data

General

| | |
|------------------------------|-------------------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 48 V AC |
| | 60 V DC |
| Number of positions | 5 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| 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 |
| Flammability rating according to UL 94 | HB |

Cable

| | |
|------------------------------------|--|
| Note | Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments. |
| Cable type | PUR, halogen-free, highly stranded, resistant to welding sparks, gray |
| Cable type (abbreviation) | 802 |
| Cable abbreviation | Li12Y11Y-HF |
| Conductor cross section | 5x 0.34 mm ² (Signal line) |
| AWG signal line | 22 |
| Conductor structure signal line | 42x 0.10 mm |
| Core diameter including insulation | 1.3 mm ±0.05 mm (Signal line) |
| Wire colors | Black, brown, blue, white, green/yellow |

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Technical data

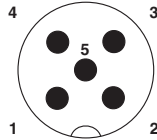
Cable

| | |
|---|--|
| Overall twist | 5 wires around filler to the core |
| External sheath, color | gray RAL 7001 |
| External cable diameter D | 5.1 mm ±0.2 mm |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 5 x D |
| Number of bending cycles | 10000000 |
| Minimum bending radius, drag chain applications | 7,5 x D |
| Traversing path | 5 m |
| Traversing rate | 3.3 m/s |
| Acceleration | 5 m/s ² |
| Number of bending cycles | 15000000 |
| Bending radius | 50 mm |
| Traversing path | 0.9 m |
| Traversing rate | 5 m/s |
| Acceleration | 30 m/s ² |
| Torsion force | ± 360 °/m (1,000,000 torsion cycles) |
| Outer sheath, material | PUR |
| Material conductor insulation | PES |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | ≥ 20 MΩ*km |
| Conductor resistance | approx. 53 Ω/km |
| Nominal voltage, cable | 300 V |
| Test voltage, cable | 1200 V |
| Special properties | Sheath resistant to welding beads, can be recycled, matt, without adhesion, wear-resistant, flame resistant and self-extinguishing |
| | Free from silicone and cadmium |
| | Free of substances which would hinder coating with paint or varnish |
| Flame resistance | DIN VDE 0472 part 804, test type B |
| | IEC 60332-1 |
| | in acc. with UL FT-2 |
| Halogen-free | The cable is halogen-free |
| Resistance to oil | As per VDE 0472 Part 803 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| Ambient temperature (operation) | -40 °C ... 90 °C (cable, fixed installation) |
| | -30 °C ... 90 °C (cable, flexible installation) |
| | to 120 °C (for 3000 h) |

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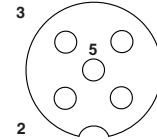
Drawings

Schematic diagram



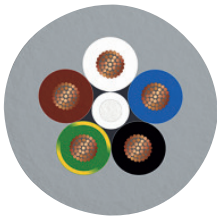
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



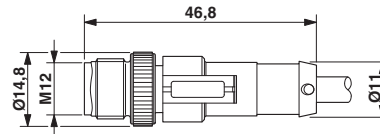
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



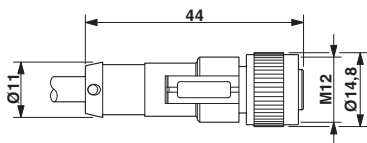
PUR, halogen-free, highly stranded, resistant to welding sparks, gray [802]

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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 | 27279218 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

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Classifications

eCl@ss

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

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |

UNSPSC

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

Approvals


Approvals

Approvals

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 current IN | 4 A | | |
| Nominal voltage UN | 125 V | | |

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Approvals

| | | | |
|--------------------------------|--|---|---------------|
| cUL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
| Nominal current I _N | | 4 A | |
| Nominal voltage U _N | | 125 V | |

| | | |
|-----|--|---------------|
| EAC | | EAC-Zulassung |
|-----|--|---------------|

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

Accessories

Accessories

Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

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



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

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



Screwdriver tools

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Accessories

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



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