

Sensor/Actuator cable - SAC-4P- 1,5-800/M12FR - 1456954

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Sensor/Actuator cable, 4-position, PUR halogen-free, welding sputter-resistant, highly flexible, Gray RAL 7001, free cable end, on Socket angled M12, A-coded, Cable length: 1.5 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 pc |
| GTIN |  4 046356 593311 |
| Weight per Piece (excluding packing) | 61.6 g |
| Custom tariff number | 85444290 |
| Country of origin | Poland |
| Note | Made to Order (non-returnable) |

Technical data

Dimensions

| | |
|-----------------|-------|
| Length of cable | 1.5 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 | 250 V |
| Number of positions | 4 |
| Contact resistance | ≤ 5 mΩ |

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Technical data

General

| | |
|------------------------------|-------------------------------|
| Insulation resistance | ≥ 10 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| Protective circuit/component | Unwired |
| Surge voltage category | II |
| Pollution degree | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

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

| | |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------|
| Note | Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments. |
| Cable type | Gray, highly flexible PUR |
| Cable type (abbreviation) | 800 |
| Cable abbreviation | Li12YYTPE-HF |
| UL AWM style | 20233 (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 | 1.3 mm ±0.05 mm (signal line) |
| Wire colors | brown, white, blue, black |
| Overall twist | 4 wires, twisted |
| External sheath, color | Gray RAL 7001 |
| External cable diameter D | 4.8 mm ±0.2 mm |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 5 x D |
| 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 |

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Technical data

Cable

| | |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Cable weight | 33.5 kg/km |
| 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 | 2000 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 accordance with FT1 as per UL 758 |
| Halogen-free | The cable is halogen-free |
| Resistance to oil | Excellent oil-resistance (as per DIN VDE 0250 T.407) |
| 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) |

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 | 27279218 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |

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Classifications

UNSPSC

| | |
|--------------|----------|
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| | |
|--------------------|-------|
| UL Listed | |
| Nominal current IN | 4 A |
| Nominal voltage UN | 300 V |

| | |
|--------------------|-------|
| cUL Listed | |
| Nominal current IN | 4 A |
| Nominal voltage UN | 300 V |

| |
|-----|
| EAC |
|-----|

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

Accessories

Accessories

Protective cap

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Accessories

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

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



Screwdriver tools

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

Torque tool

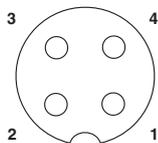
Torque screwdriver - TSD 04 SAC - 1208429



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

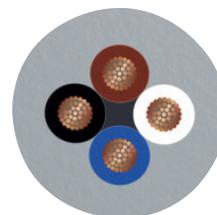
Drawings

Schematic diagram



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

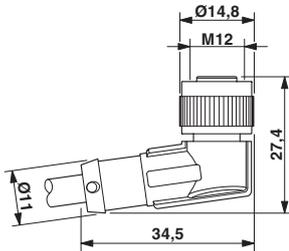
Cable cross section



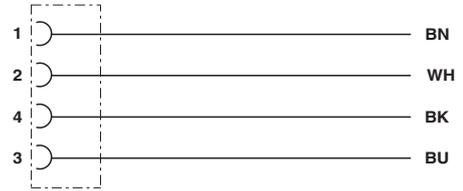
Gray, highly flexible PUR [800]

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Dimensioned drawing



Circuit diagram



Contact assignment of the M12 socket

M12 x 1 socket, angled