

Sensor/actuator cable - SAC-8P-10,0-28X/M12FS SH OD - 1407284

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Sensor/actuator cable, 8-position, PE-X/PE-X halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket straight M12, coding: A, cable length: 10 m, for outdoor applications, with high-grade steel knurl

Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Corrosion protection for all exposed metal parts, thanks to the use of stainless steel type 1.4404
- ✓ Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C to +105°C
- ✓ Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 774024 |
| GTIN | 4046356774024 |

Technical data

Dimensions

| | |
|-----------------|------|
| Length of cable | 10 m |
|-----------------|------|

Ambient conditions

| | |
|---------------------------------|---|
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |
| | -40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4)) |
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |
| | IP69K |

General

| | |
|-----------------------|---------|
| Rated current at 40°C | 2 A |
| Rated voltage | 30 V AC |

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Technical data

General

| | |
|------------------------------|-------------------------------|
| | 30 V DC |
| Number of positions | 8 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| Protective circuit/component | unwired |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

| | |
|--|-----------------|
| Flammability rating according to UL 94 | V0 |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PP |
| Material of grip body | PP |
| Material, knurls | Stainless steel |
| Sealing material | FPM |

Standards and Regulations

| | |
|--|-------------------------------|
| Standards/specifications | M12 connector IEC 61076-2-101 |
| Flammability rating according to UL 94 | V0 |

Cable

| | |
|------------------------------------|--|
| Cable type | PE-X black |
| Cable type (abbreviation) | 28X |
| Cable abbreviation | Li2X2X-C-V1-2X |
| Conductor cross section | 8x 0.25 mm ² |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm ±0.02 mm |
| Thickness, insulation | approx. 0.25 mm (Core insulation) |
| Wire colors | white, brown, green, yellow, gray, pink, blue, red |
| Overall twist | 8 wires around filler to the core |
| Length of twist, overall twist | 67 mm |
| Shielding | Braided copper wires |
| Optical shield covering | 85 % |
| External sheath, color | black-gray RAL 7021 |
| Inner sheath thickness | approx. 0.5 mm |
| Outer sheath thickness | approx. 0.7 mm |
| External cable diameter D | 7.25 mm ±0.3 mm |

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Technical data

Cable

| | |
|---|---|
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 1000000 |
| 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 | 81 kg/km |
| Outer sheath, material | PE-X |
| Material, inner sheath | PE-X |
| Material, filler | PP yarn |
| Material conductor insulation | PE-X |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | ≥ 100 MΩ*km (at 20 °C) |
| Conductor resistance | ≤ 78 Ω/km (at 20 °C) |
| Working capacitance | approx. 80 pF (core-core) |
| | approx. 125 pF (core-shield) |
| Nominal voltage, cable | ≤ 300 V AC |
| Test voltage, cable | ≥ 3000 V AC (Spark test) |
| Test voltage Core/Shield | ≥ 1000 V AC (for 10 s) |
| Special properties | Inductance approx. 0.48 mH/km |
| | Irradiated |
| Flame resistance | According to DIN EN 60332-1-2 |
| | according to DIN EN 50266-2-5 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | in accordance with DIN EN 50267-2-1 |
| Resistance to oil | According to DIN EN 60811-2-1, 168 h at 100°C |
| | According to DIN EN 50306 |
| Other resistance | Resistance to fuels according to IEC 60811, 168 h at 70°C |
| | UV resistant according to DIN VDE 0276-605 |
| Ambient temperature (operation) | -40 °C ... 105 °C (cable, fixed installation) |
| | -15 °C ... 105 °C (cable, flexible installation) |
| | 20 °C ±5 °C (cable, drag chain applications) |

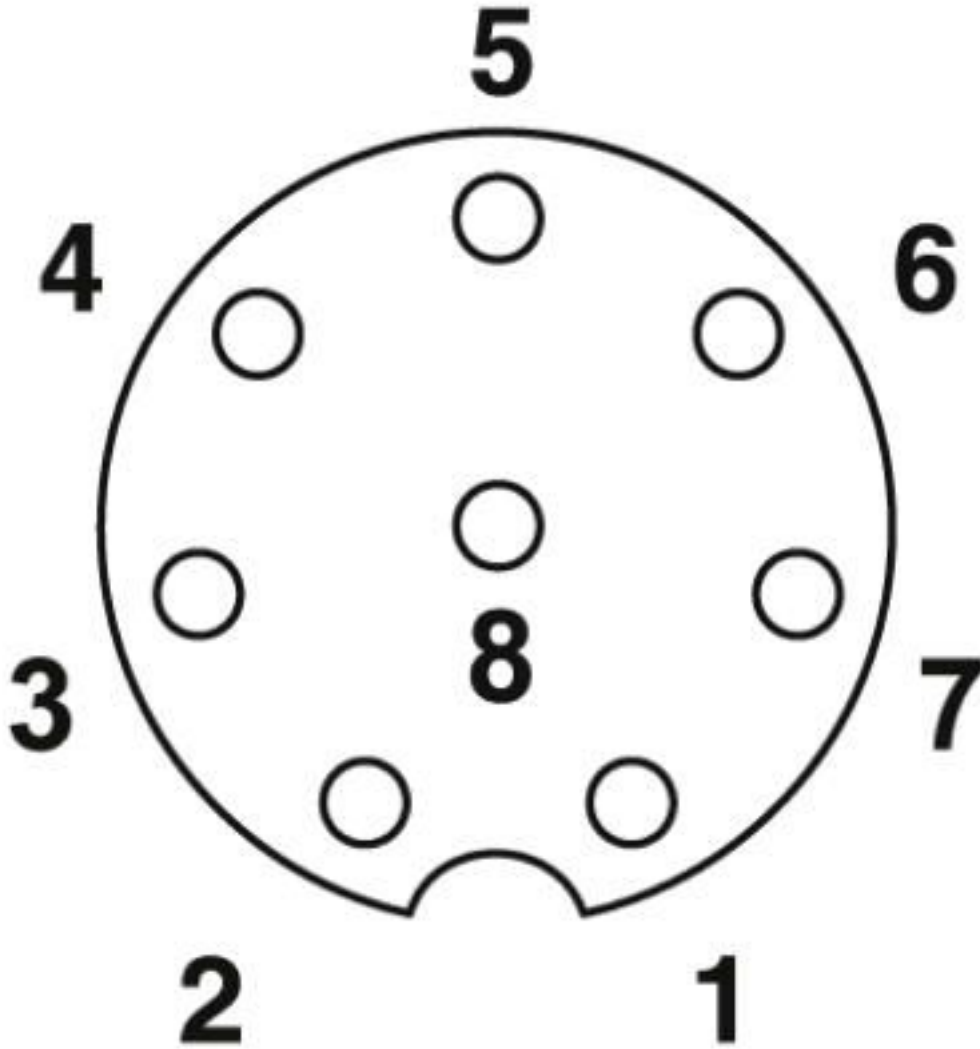
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Sensor/actuator cable - SAC-8P-10,0-28X/M12FS SH OD - 1407284

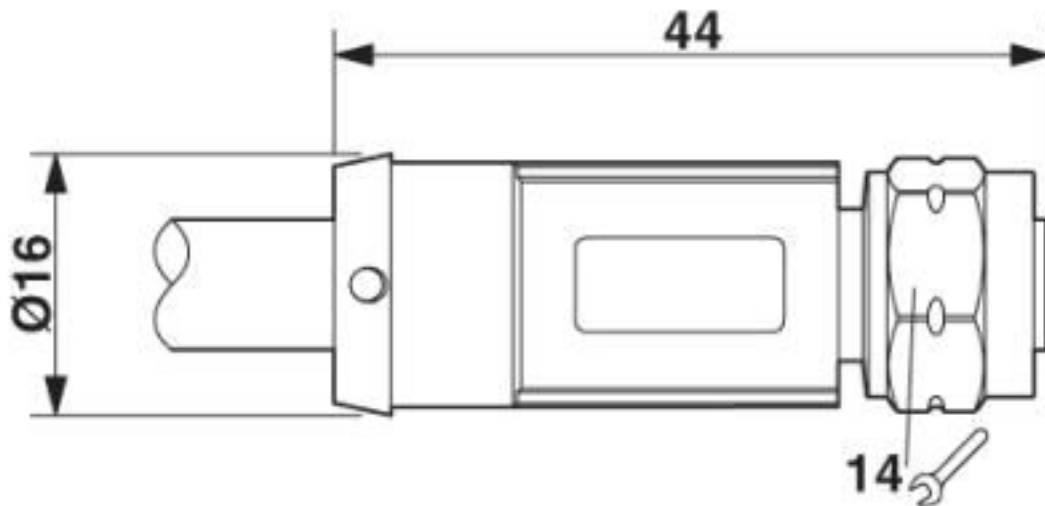
Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

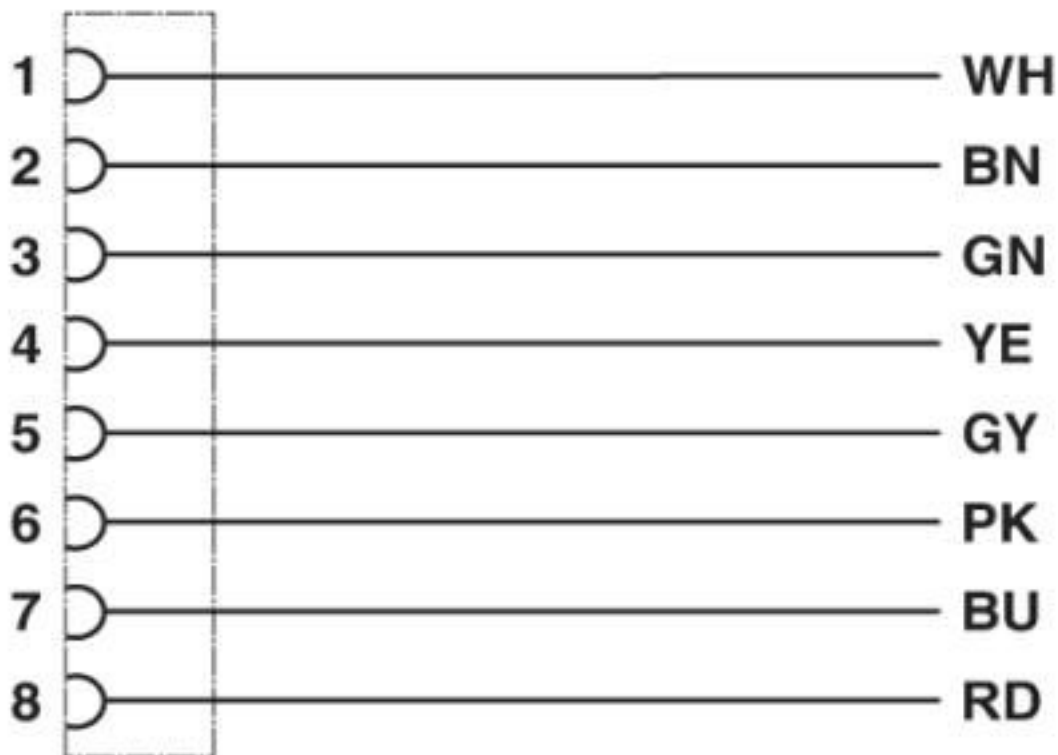
Sensor/actuator cable - SAC-8P-10,0-28X/M12FS SH OD - 1407284

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 socket

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Cable cross section



PE-X black [28X]

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27060311 |
| 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 |
| eCl@ss 9.0 | 27060311 |

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Classifications

ETIM

| | |
|----------|----------|
| 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

DNV GL / EAC-RoHS / EAC

Ex Approvals

Approval details

| | | | |
|--------|--|---|------------|
| DNV GL | | https://approvalfinder.dnvgl.com/ | TAE00002K4 |
|--------|--|---|------------|

| | | | |
|----------|--|--|--------------------------|
| EAC-RoHS | | | RU D- DE.HB35.B.00387 |
|----------|--|--|--------------------------|

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

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Accessories

Accessories

Screwdriver tools

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

Adapter - SAC BIT M12-W14 - 1212513



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a hexagonal knurl wrench size of 14 mm, with 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

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



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

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[804001A09M150](#) [805001A09M0502](#) [84914-0235](#) [84914-0237](#) [885030A09M020](#) [8R4J30E03C3003](#) [1200651332](#) [1200651713](#) [1200660844](#)
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