

Sensor/actuator cable - SAC-8P-M12MS/ 2,0-28X SH OD - 1407279

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Sensor/actuator cable, 8-position, PE-X/PE-X halogen-free, black-gray RAL 7021, shielded, Plug straight M12, A-coded, on free cable end, cable length: 2 m, for outdoor applications, with high-grade steel knurl

Why buy this product

- ✓ 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 STK |
| GTIN | |
| GTIN | 4046356773973 |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 2 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 | 48 V AC |

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Technical data

General

| | |
|------------------------------|-------------------------------|
| | 60 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 |

Standards and Regulations

| | |
|--|-----------------|
| Standard designation | M12 connector |
| Standards/regulations | 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) |

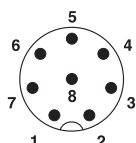
Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

Sensor/actuator cable - SAC-8P-M12MS/ 2,0-28X SH OD - 1407279

Schematic diagram



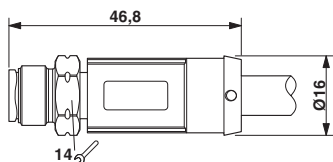
Pin assignment M12 plug, 8-pos., A-coded, view plug side

Cable cross section



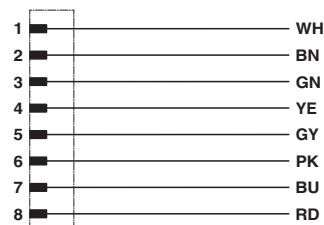
PE-X black [28X]

Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of the M12 plug

Approvals

Approvals

Approvals

DNV GL

Ex Approvals

Approval details

| | | |
|--------|---|------------|
| DNV GL | http://exchange.dnv.com/tari/ | TAE00002K4 |
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