

Sensor/Actuator cable - SAC-5P-M12MS/ 5,0-28X/M12FS OD - 1407262

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Sensor/Actuator cable, 5-position, PE-X halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 5 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



Key commercial data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 773799 |
| Weight per Piece (excluding packing) | 360.6 g |
| Custom tariff number | 85444290 |
| Country of origin | Poland |
| Note | Made to Order (non-returnable) |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 5 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 | 4 A |
|-----------------------|-----|

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Technical data

General

| | |
|------------------------------|-------------------------------|
| Rated voltage | 60 V |
| Number of positions | 5 |
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| Protective circuit/component | Unwired |
| Pollution degree | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

| | |
|---|------------------|
| Inflammability class according to UL 94 | V0 |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PP |
| Material of grip body | PP |
| Material, knurls | High-grade steel |
| Sealing material | FPM |

Cable

| | |
|---|-----------------------------------|
| Cable type | PE-X black |
| Cable type (abbreviation) | 28X |
| Cable abbreviation | Li2X2X |
| Conductor cross section | 5x 0.5 mm ² |
| AWG signal line | 20 |
| Conductor structure signal line | 28x 0.15 mm |
| Core diameter including insulation | 1.6 mm ±0.5 mm |
| Thickness, insulation | approx. 0.3 mm (Core insulation) |
| Wire colors | Brown, white, blue, black, gray |
| Overall twist | 5 wires around filler to the core |
| Length of twist, overall twist | 68 mm |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 1.25 mm |
| External cable diameter D | 6.8 mm ±0.2 mm |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 2000000 |
| Minimum bending radius, drag chain applications | 10 x D |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |

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Technical data

Cable

| | |
|---------------------------------|---|
| Acceleration | 10 m/s ² |
| Cable weight | 70 kg/km |
| Outer sheath, material | 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 | ≤ 39 Ω/m (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V AC |
| Test voltage, cable | ≥ 3000 V AC (Spark test) |
| Flame resistance | According to DIN EN 60332-1-2 |
| | According to DIN EN 50266-2-5 |
| | according to IEC 60332-3-25 (bunched fire test) |
| 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) |

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 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 6.01 | 31251501 |
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Classifications

UNSPSC

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

Approvals

Approvals

Approvals

GL

Ex Approvals

Approvals submitted

Approval details

| |
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| GL |
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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



SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, with 4 mm hexagonal drive

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Accessories

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

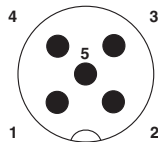
Torque screwdriver - TSD-M 1,2NM - 1212224



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

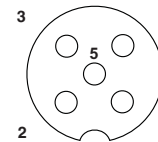
Drawings

Schematic diagram



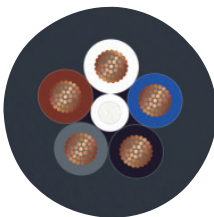
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



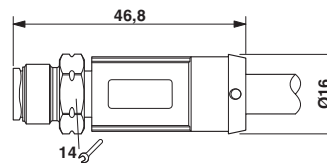
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



PE-X black [28X]

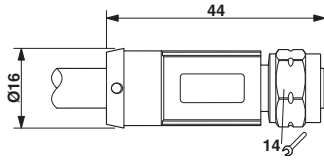
Dimensioned drawing



M12 x 1 plug, straight

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Dimensioned drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 connector and the M12 socket