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Sensor/Actuator cable - SAC-5P-M12MS/ 1,5-PUR/M12FS SH - 1500907

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Sensor/Actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 1.5 m

Why buy this product

- Easy and safe: 100% electrically tested plug-in components
- Our standard: robust halogen-free PUR cable
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Key Commercial Data

| | |
|--------------|---------------------|
| Packing unit | 1 STK |
| GTIN | 4 017918 618155 |

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 |

General

| | |
|------------------------------|-------------------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 60 V |
| 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 |

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Technical data

General

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

| | |
|---|---------------------------------------|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | LiF9YC11Y |
| UL AWM style | 20549 |
| 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 | 1.27 mm ±0.02 mm (Signal line) |
| Thickness, insulation | ≥ 0.21 mm |
| Wire colors | Brown, white, blue, black, gray |
| Overall twist | 5 wires around filler to the core |
| Shielding | Tinned copper braided shield |
| Optical shield covering | 85 % |
| External sheath, color | black-gray RAL 7021 |
| External cable diameter D | 5.9 mm ±0.2 mm |
| Smallest bending radius, fixed installation | 29.5 mm |
| Smallest bending radius, movable installation | 59 mm (up to +60°C) |
| Number of bending cycles | 4000000 |
| Bending radius | 59 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Cable weight | 48 kg/km |
| Outer sheath, material | PUR |
| Material conductor insulation | PP |

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Technical data

Cable

| | |
|---------------------------------|--|
| Conductor material | Bare Cu litz wires |
| Insulation resistance | 70 GΩ*km (at 20 °C) |
| Conductor resistance | max. 57 Ω/km (at 20 °C) |
| Nominal voltage, cable | 300 V (at 20 °C) |
| Test voltage Core/Core | 3000 V (at 20 °C) |
| Special properties | Flexible cable conduit capable |
| Flame resistance | in acc. with UL FT-2 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Other resistance | hydrolysis and microbe resistant |
| | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -25 °C ... 80 °C (cable, flexible installation) |

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 | 27279218 |
| eCl@ss 8.0 | 27279218 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

UNSPSC

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

Approvals

Approvals

Sensor/Actuator cable - SAC-5P-M12MS/ 1,5-PUR/M12FS SH - 1500907

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| | |
|--------------------------------|-------|
| UL Listed | |
| Nominal current I _N | 4 A |
| Nominal voltage U _N | 125 V |

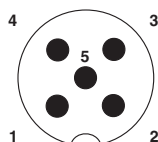
| | |
|--------------------------------|-------|
| cUL Listed | |
| Nominal current I _N | 4 A |
| Nominal voltage U _N | 125 V |

EAC

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

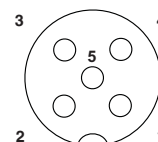
Drawings

Schematic diagram



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

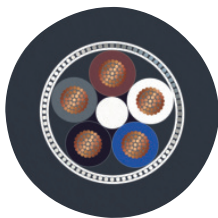
Schematic diagram



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

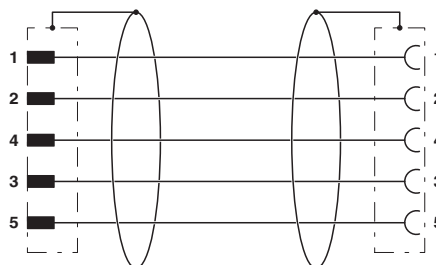
Sensor/Actuator cable - SAC-5P-M12MS/ 1,5-PUR/M12FS SH - 1500907

Cable cross section



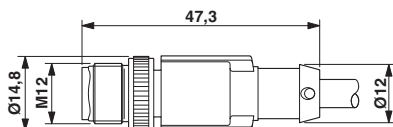
PUR halogen-free black [PUR]

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

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