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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Sensor/Actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FR - 1683565

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket angled M8, Cable length: 1 m



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 1 |
| Minimum order quantity | 25 1 |
| Weight per Piece (excluding packing) | 43.74 GRM |
| Custom tariff number | 85444290 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 1 m |
|-----------------|-----|

Ambient conditions

| | |
|----------------------|------|
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |

General

| | |
|------------------------|--------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 250 V |
| Number of positions | 3 |
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Status display | No |
| Surge voltage category | II |

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Technical data

General

| | |
|-----------------------------|------------|
| Pollution degree | 3 |
| Insertion/withdrawal cycles | ≥ 100 |

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

| | |
|---|---------------------------------------|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| UL AWM style | 20549 |
| Conductor cross section | 3x 0.25 mm ² (signal line) |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm \pm 0.02 mm (signal line) |
| Thickness, insulation | ≥ 0.38 mm (Core insulation) |
| | approx. 0.9 mm (Outer cable sheath) |
| Wire colors | brown, blue, black |
| Overall twist | 3 wires, twisted |
| Length of twist, overall twist | 40 mm |
| External sheath, color | Black-gray RAL 7021 |
| External cable diameter D | 4.4 mm \pm 0.15 mm |
| Smallest bending radius, fixed installation | 22 mm |
| Smallest bending radius, movable installation | 44 mm |
| Number of bending cycles | 4000000 |
| Bending radius | 44 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Cable weight | 24 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 | $\geq 100 \text{ G}\Omega \cdot \text{km}$ (at 20 °C) |
| Conductor resistance | $\leq 78 \text{ }\Omega/\text{km}$ (at 20 °C) |
| Nominal voltage, cable | $\leq 300 \text{ V}$ |
| Test voltage, cable | $\geq 3000 \text{ V}$ |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| Flame resistance | in accordance with DIN UL-Style 20549 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | hydrolysis and microbe resistant |
| | Highly resistant to acids, alkaline solutions and solvents |
| | Resistant to salt water |
| | 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 | 27061801 |
| eCl@ss 8.0 | 27061801 |

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 |

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Classifications

UNSPSC

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

Approvals

Approvals


Approvals


UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approvals submitted

Approval details

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

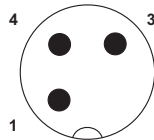
| | |
|--|-------|
| cUL Listed  | |
| Nominal current I _N | 4 A |
| Nominal voltage U _N | 125 V |

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

Drawings

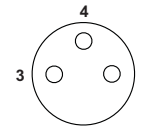
Sensor/Actuator cable - SAC-3P-M12MS/1,0-PUR/M 8FR - 1683565

Schematic diagram



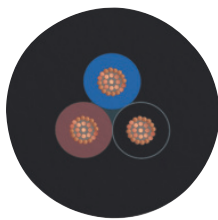
Pin assignment M12 plug, 3-pos., A-coded, view male side

Schematic diagram



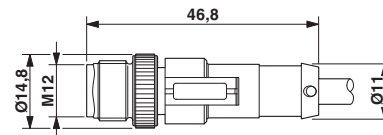
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



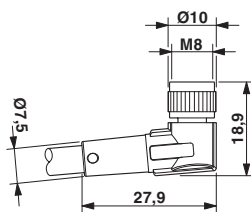
PUR halogen-free black [PUR]

Dimensioned drawing



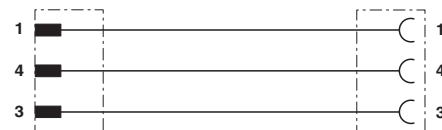
M12 x 1 plug, straight

Dimensioned drawing



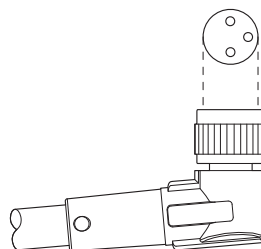
Socket M8 x 1, angled

Circuit diagram



Contact assignment of M12 plugs / M8 sockets

Schematic diagram



Layout of connector pin assignments

