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Extract from the online catalog


VS-M12MSD/2,0-93X/M12MSDOD

Order No.: 1454231



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1454231>

Sensor/Actuator cable, 4-position, Radox GKW S halogen-free, Black-gray RAL 7021, shielded, Plug, straightLink:M12, D - data, on Plug, straight M12, D - data, Cable length: 2 m

| Commercial data | |
|--------------------------|--|
| GTIN (EAN) |  4 046356 568845 |
| Note | Made-to-order |
| sales group | D117 |
| Pack | 1 pcs. |
| Customs tariff | 85444210 |
| Catalog page information | Page 221 (PC-2011) |

Product notes

WEEE/RoHS-compliant since:
03/04/2010



<http://www.download.phoenixcontact.com>
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

| General data | |
|-----------------------|------|
| Rated current at 40°C | 4 A |
| Rated voltage | 60 V |
| Number of positions | 4 |
| Length of cable | 2 m |

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| | |
|---------------------------------|---|
| Ambient temperature (operation) | -40 °C ... 105 °C |
| | -40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4)) |

General characteristics

| | |
|-----------------------------|-------------------------------|
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Coding | D - data |
| Pollution degree | 3 |
| Degree of protection | IP65/IP68/IP69K |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |
| 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 |

Conductor data

| | |
|---|--|
| Cable type | Ethernet |
| Cable type (abbreviation) | 936 |
| Cable structure | 1x4xAWG22/7; SF/Q |
| Conductor cross section | 0.34 mm ² |
| AWG signal line | 22 |
| Conductor structure signal line | 7x 0.25 mm |
| Core diameter including insulation | 1.95 mm |
| Thickness, insulation | min. 0.8 mm (Outer cable sheath) |
| External cable diameter | 7.25 mm |
| Wire colors | white, orange, blue, yellow |
| External sheath, color | Black RAL 9005 |
| Conductor resistance | ≤ 54.4 Ω/km (at 20°C) |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001) |
| Working capacitance | ≤ 65 pF (core-core) |
| | ≤ 100 pF (core-shield) |
| Wave impedance | 100 Ω ±5% (f = 100 MHz) |
| Shield attenuation | 40 dB (30 MHz ≤ f ≤ 100 MHz) |
| Coupling resistance | 200.00 mΩ/m (f ≤ 30 MHz) |

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| | |
|---|--|
| Nominal voltage, conductor | 300 V |
| Test voltage, conductor | 1500 V |
| Overall twist | 4 wires, twisted |
| Shielding | Plastic-coated aluminum foil, tinned copper braided shield |
| Optical shield covering | 100 % |
| Outer sheath, material | Radox GKW S |
| Material conductor insulation | Radox Com |
| Conductor material | silver-plated Cu litz wires |
| Cable weight | 67 kg/km |
| Smallest bending radius, fixed installation | > 43.5 mm |
| Ambient temperature (operation) | -40 °C ... 90 °C (cable, fixed installation) -25 °C ... 90 °C (cable, flexible installation) |
| Special properties | Fire protection in rail vehicles as per DIN 5510-2 Fire protection level 1, 2, 3, 4 Fire protection in rail vehicles as per BS 6853 Cables inside and outside the vehicle, Cat. Ia, Ib, II manufactured as per EN 50288-2-2 multi-strand metallic data and control cables Fire protection in rail vehicles according to CEI 11170 |
| Resistance to oil | as per EN 50306-3 section 4.8 |
| Other resistance | Resistance to acids and alkalis as per EN 50306-3 section 4.10 Resistance to fuels as per EN 50306-3 section 4.9 |

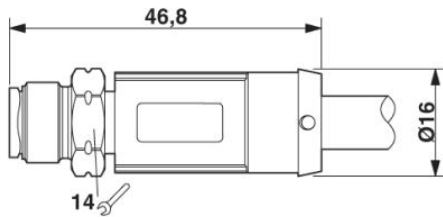
Accessories

| Item | Designation | Description |
|--------------|-----------------|---|
| Tools | | |
| 1212513 | SAC BIT M12-W14 | SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, with 4 mm hexagonal drive |
| 1208429 | TSD 04 SAC | Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors |

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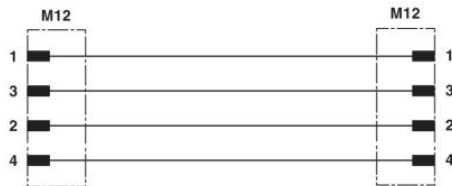
Diagrams/Drawings

Dimensioned drawing



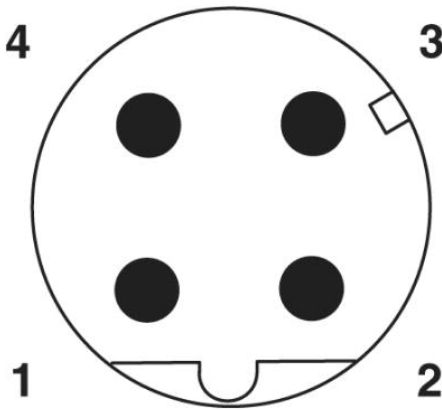
M12 x 1 male connector, straight

Circuit diagram



Contact assignment of the M12 plug

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

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