

## Network cable - NBC-MSD/ 1,0-93E SCO - 1407356

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Network cable, Ethernet CAT5 (100 Mbps), Ethernet CAT5e (100 Mbps), 4-position, PUR, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: D, on Free cable end, Cable length: 1 m



### Key commercial data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 70.0 GRM |
| Custom tariff number                 | 85444210 |
| Country of origin                    | Poland   |

### Technical data

#### Dimensions

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

#### Ambient conditions

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

#### General data

|                       |  |
|-----------------------|--|
| Rated current at 40°C | 4 A                                      |
| Rated voltage         | 250 V                                    |
| Number of positions   | 4  |
| Signal type/category  | Ethernet CAT5 (IEC 11801:2002), 100 Mbps |
|                       | Ethernet CAT5e (TIA 568B:2001), 100 Mbps |
| Standards/regulations | M12 connector IEC 61076-2-101            |

#### Characteristics head 1

|  |                                   |
|--|-----------------------------------|
| Head type                                | Plug Straight M12 SPEEDCON / IP67 |
| No. of positions (pin connector pattern) | 4                                 |

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### Technical data

#### Characteristics head 1

|                                 |  |
|---------------------------------|--|
| Coding                          | D (Data)   |
| Color                           | black  |
| Material (component)            | CuZn (Contact)                                     |
|                                 | Ni/Au (Contact surface)                            |
|                                 | PA (Contact carriers)                              |
|                                 | TPU, hardly inflammable, self-extinguishing (Grip) |
|                                 | Zinc die-cast, nickel-plated (Screw connection)    |
| Contact resistance              | ≤ 5 mΩ   |
| Insulation resistance           | ≥ 100 MΩ   |
| Insertion/withdrawal cycles     | ≥ 100  |
| Torque                          | 0.4 Nm   |
| Ambient temperature (operation) | -25 °C ... 90 °C                                   |

#### Characteristics head 2

|           |                |
|-----------|----------------|
| Head type | Free cable end |
|-----------|----------------|

#### Cable

|   |  |
|---|--|
| Cable type                                    | PUR ETHERNET 2x2 FLEX                              |
| Cable type (abbreviation)                     | 93E  |
| UL AWM style                                  | 20963 (80°C/30 V)                                  |
| Signal type/category                          | Ethernet CAT5 (IEC 11801:2002), 100 Mbps           |
|   | Ethernet CAT5e (TIA 568B:2001), 100 Mbps           |
| Cable structure                               | 2x2xAWG26/7; SF/UTP                                |
| Conductor cross section                       | 2x 2x 0.14 mm <sup>2</sup>                         |
| AWG signal line                               | 26   |
| Conductor structure signal line               | 7x 0.16 mm   |
| Core diameter including insulation            | 0.98 mm  |
| Wire colors                                   | white/orange-orange, white/green-green             |
| Twisted pairs                                 | 2 cores to the pair                                |
| Overall twist                                 | Two pairs with two fillers to the core             |
| Shielding                                     | Aluminum-coated foil, tinned copper braided shield |
| Optical shield covering                       | 70 %   |
| External sheath, color                        | water blue RAL 5021                                |
| External cable diameter D                     | 6.4 mm ±0.2 mm                                     |
| Minimum bending radius, fixed installation    | 4 x D  |
| Minimum bending radius, flexible installation | 8 x D  |
| Tensile strength short-term/long-term         | ≤ 80N  |
| Cable weight                                  | 42 kg/km   |

## Network cable - NBC-MSD/ 1,0-93E SCO - 1407356

### Technical data

#### Cable

|   |   |
|---|---|
| Outer sheath, material                  | PUR   |
| Material conductor insulation           | Foamed PE                                       |
| Conductor material                      | Bare Cu litz wires                              |
| Insulation resistance                   | ≥ 500 MΩ*km (at 20 °C)                          |
| Conductor resistance                    | ≤ 290000000 Ω/km (at 20 °C)                     |
| Working capacitance                     | 45 nF (At 1 kHz)                                |
| Wave impedance                          | 100 Ω ±5 Ω (at 100 MHz)                         |
| Signal runtime                          | 5.3 ns/m  |
| Nominal voltage, cable                  | ≤ 100 V   |
|   | 300 V (Outer cable sheath)                      |
| Test voltage Core/Core                  | 700 V (50 Hz, 1 min.)                           |
| Test voltage Core/Shield                | 700 V (50 Hz, 1 min.)                           |
| Flame resistance                        | IEC 60332-1-2                                   |
| Halogen-free                            | According to IEC 60754-1                        |
| Resistance to oil                       | in accordance with DIN EN 60811-2-1             |
| Ambient temperature (operation)         | -40 °C ... 80 °C (cable, fixed installation)    |
|   | -20 °C ... 80 °C (cable, flexible installation) |
| Ambient temperature (installation)      | -20 °C ... 80 °C                                |
| Ambient temperature (storage/transport) | -20 °C ... 80 °C                                |

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

#### UNSPSC

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

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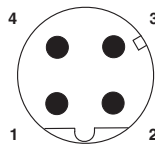
## Classifications

### UNSPSC

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

## Drawings

Schematic diagram



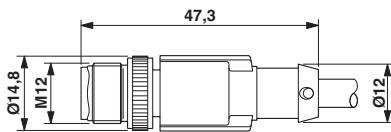
Pin assignment M12 male connector, 4-pos., D-coded, male side

Cable cross section



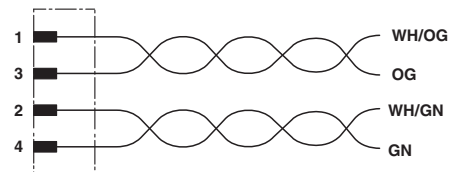
PUR ETHERNET 2x2 FLEX [93E]

Dimensioned drawing



Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of the M12 plug