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# Network cable - NBC-FSD/10,0-93E/R4AC SCO - 1407387

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Network cable, Ethernet CAT5 (100 Mbps), Ethernet CAT5e (100 Mbps), 4-position, PUR, water blue RAL 5021, shielded, Plug Straight RJ45 / IP20, on Socket Straight M12 SPEEDCON / IP67, Coding: D, Cable length: 10 m

## Key commercial data

| | |
|---|---|
| Packing unit | 1 pc |
| Custom tariff number | 85444210 |
| Country of origin | Poland |

## Technical data

### Dimensions

| | |
|---|---|
| Length of cable | 10 m |

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 (M12 connector) |
| | IP67 (M12 connector) |
| | IP20 (RJ45 connector) |

### General data

| | |
|---|---|
| Rated current at 40°C | 1 A |
| Rated voltage | 50 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 RJ45 / IP20 |
| No. of positions (pin connector pattern) | 4 (8) |

# Network cable - NBC-FSD/10,0-93E/R4AC SCO - 1407387

## Technical data

### Characteristics head 1

| | |
|---|---|
| Color | Gray |
| Material (component) | CuSn (Contact) |
| | Ni/Au (Contact surface) |
| | PC (Contact carriers) |
| | PA (Housing) |
| Insertion/withdrawal cycles | ≥ 750 |
| Ambient temperature (operation) | -40 °C ... 60 °C |

### Characteristics head 2

| | |
|---|---|
| Head type | Socket Straight M12 SPEEDCON / IP67 |
| No. of positions (pin connector pattern) | 4 |
| Coding | D (Data) |
| Color | black |
| Material (component) | CuZn (Contact) |
| | Ni/Au (Contact surface) |
| | TPU GF (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 |

### 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 mm² |
| 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 |

# Network cable - NBC-FSD/10,0-93E/R4AC SCO - 1407387

## Technical data

### Cable

| | |
|---|---|
| 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 | $\leq$ 80N |
| Cable weight | 42 kg/km |
| Outer sheath, material | PUR |
| Material conductor insulation | Foamed PE |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | $\geq$ 500 MΩ*km (at 20 °C) |
| Conductor resistance | $\leq$ 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 | $\leq$ 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 |

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# Network cable - NBC-FSD/10,0-93E/R4AC SCO - 1407387

## Classifications

### eCl@ss

| eCl@ss 8.0 | 27061801 |
|---|---|

### ETIM

| 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 |

## Drawings

Schematic diagram
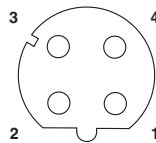
Pin assignment M12 socket, 4-pos., D-coded, female side
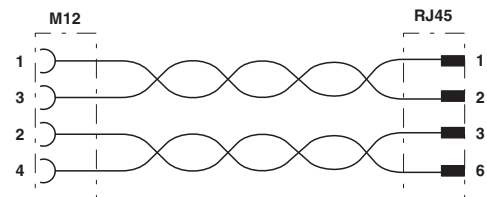
Schematic diagram
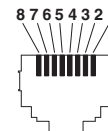
Connector pin assignment plug RJ45
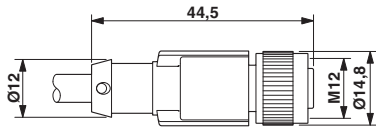
Cable cross section

PUR ETHERNET 2x2 FLEX [93E]

Circuit diagram

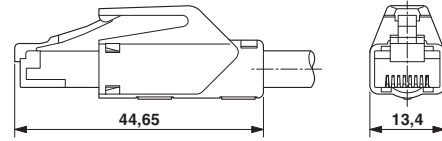Contact assignment of the M12 socket and the RJ45 plug

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# Network cable - NBC-FSD/10,0-93E/R4AC SCO - 1407387

Dimensioned drawing

Dimensioned drawing

**44,5**

Ø12

M12 Ø14,8

M12 x 1 socket, straight, shielded

**44,65**

**13,4**

RJ45 connector, IP20