

## Network cable - NBC-R4QC/10,0-93B/R4QC - 1408980

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Assembled PROFINET cable, CAT5e, shielded, star quad, 22 AWG stranded (7-wire), RAL 6018 (yellow-green), RJ45 plug/IP67 push/pull plastic housing to RJ45 plug/IP67 push/pull plastic housing, line, 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 | IP67 (RJ45 connector) |
|----------------------|-----------------------|

#### General data

|                        |  |
|------------------------|--|
| Rated current at 40°C  | 1 A  |
| Rated voltage          | 50 V   |
| Number of positions    | 4  |
| Signal type/category   | PROFINET CAT5 (IEC 11801:2002), 100 Mbps<br>PROFINET CAT5e (TIA 568B:2001), 100 Mbps |
| Standards/regulations  | IEC PAS 61076-3-117  |
| Surge voltage category | I  |
| Pollution degree       | 2  |

#### Characteristics head 1

|  |                                     |
|--|-------------------------------------|
| Head type                                | Plug Straight RJ45 Push Pull / IP67 |
| No. of positions (pin connector pattern) | 4 (8)                               |

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### Technical data

#### Characteristics head 1

|                                 |                         |
|---------------------------------|-------------------------|
| Color                           | black                   |
| Material (component)            | CuSn (Contact)          |
|                                 | Ni/Au (Contact surface) |
|                                 | PC (Contact carriers)   |
|                                 | PA GF (Housing)         |
| Insertion/withdrawal cycles     | ≥ 750                   |
| Ambient temperature (operation) | -40 °C ... 70 °C        |

#### Characteristics head 2

|  |                                     |
|--|-------------------------------------|
| Head type                                | Plug Straight RJ45 Push Pull / IP67 |
| No. of positions (pin connector pattern) | 4 (8)                               |
| Color                                    | black                               |
| Material (component)                     | CuSn (Contact)                      |
|  | Ni/Au (Contact surface)             |
|  | PC (Contact carriers)               |
|  | PA GF (Housing)                     |
| Insertion/withdrawal cycles              | ≥ 750                               |
| Ambient temperature (operation)          | -40 °C ... 70 °C                    |

#### Cable

|  |  |
|--|--|
| Cable type                                 | PROFINET PVC stranded CAT5e                        |
| Cable type (abbreviation)                  | 93B  |
| UL AWM style                               | 21694  |
| Signal type/category                       | PROFINET CAT5 (IEC 11801:2002), 100 Mbps           |
|  | PROFINET CAT5e (TIA 568B:2001), 100 bps            |
| Cable structure                            | 1x4xAWG22/7; SF/TQ                                 |
| Conductor cross section                    | 4x 0.34 mm <sup>2</sup>                            |
| AWG signal line                            | 22   |
| Conductor structure signal line            | 7x 0.25 mm   |
| Core diameter including insulation         | approx. 1.5 mm                                     |
| Wire colors                                | White, yellow, blue, orange                        |
| Overall twist                              | Star quad  |
| Shielding                                  | Aluminum-coated foil, tinned copper braided shield |
| Optical shield covering                    | 85 %   |
| External sheath, color                     | Green RAL 6018                                     |
| Outer sheath thickness                     | approx. 0.9 mm                                     |
| External cable diameter D                  | 6.5 mm ±0.2 mm                                     |
| Minimum bending radius, fixed installation | 3 x D  |

## Network cable - NBC-R4QC/10,0-93B/R4QC - 1408980

### Technical data

#### Cable

|   |   |
|---|---|
| Minimum bending radius, flexible installation | 7 x D   |
| Torsion force                                 | ± 180 °/m (30,000 torsion cycles)               |
| Cable weight                                  | 67 kg/km  |
| Outer sheath, material                        | PVC   |
| Material, inner sheath                        | PVC   |
| Material conductor insulation                 | PE  |
| Conductor material                            | Tin-plated Cu litz wires                        |
| Insulation resistance                         | ≥ 500 MΩ*km                                     |
| Loop resistance                               | ≤ 120 Ω (per kilometer)                         |
| Working capacitance                           | 52 pF   |
| Wave impedance                                | 100 Ω ±15 Ω (at 100 MHz)                        |
| Signal runtime                                | 5.3 ns/m  |
| Coupling resistance                           | ≤ 20.00 mΩ/m                                    |
| Nominal voltage, cable                        | 600 V   |
| Test voltage Core/Core                        | 2000 V (50 Hz, 1 min.)                          |
| Test voltage Core/Shield                      | 2000 V (50 Hz, 1 min.)                          |
| Flame resistance                              | According to UL 1685 (CSA FT 4)                 |
| Resistance to oil                             | Resistant to oil to a limited extent            |
| Other resistance                              | UV resistant According to UL 1581, Section 1200 |
| Ambient temperature (operation)               | -40 °C ... 70 °C (cable, fixed installation)    |
|   | -40 °C ... 70 °C (cable, flexible installation) |
| Ambient temperature (installation)            | -20 °C ... 60 °C                                |
| Ambient temperature (storage/transport)       | -50 °C ... 70 °C                                |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 272607xx |
| eCl@ss 4.1 | 27260701 |
| eCl@ss 5.0 | 27260701 |
| eCl@ss 5.1 | 27060307 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27061801 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC000830 |
|----------|----------|

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## Classifications

### ETIM

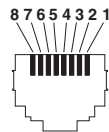
|          |          |
|----------|----------|
| ETIM 4.0 | EC002599 |
| ETIM 5.0 | EC002599 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 26121616 |
| UNSPSC 7.0901 | 26121616 |
| UNSPSC 11     | 26121604 |
| UNSPSC 12.01  | 31261501 |
| UNSPSC 13.2   | 26121616 |

## Drawings

Schematic diagram



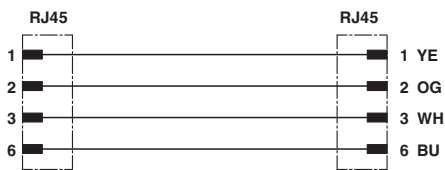
Connector pin assignment plug RJ45

Cable cross section



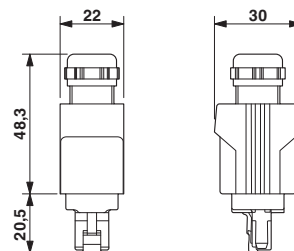
PROFINET PVC stranded CAT5e [93B]

Circuit diagram



Contact assignment of RJ45 plugs

Dimensioned drawing



RJ45 Push-Pull connector, IP67