

## Network cable - NBC-93G/... - 1408541

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By the meter, Network cable, EtherCAT® CAT5 (100 Mbps), shielded, PVC/PVC, green RAL 6018, 4-wire (1x4xAWG22/7; SF/TQ), Color, single wire: White, yellow, blue, orange, Cable length: Free input (110.0 ... 500 m), Supplied on a cable drum in up to two parts (details: see technical data)



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 STK    |
| Weight per Piece (excluding packing) | 0.010 g  |
| Custom tariff number                 | 85444995 |
| Country of origin                    | Germany  |

### Technical data

#### Dimensions

|                 |                              |
|-----------------|------------------------------|
| Length of cable | Free input (110.0 ... 500 m) |
|-----------------|------------------------------|

#### General data

|                                       |                                                                                                                                                |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Note                                  | The ordered cable length can be supplied in up to two parts (each > 100 m) on one cable drum. Corresponding deliveries are marked accordingly. |
| Number of positions                   | 4                                                                                                                                              |
| Signal type/category                  | EtherCAT®                                                                                                                                      |
| Alternative short product description | Cable drum                                                                                                                                     |

#### Cable

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Cable type                      | EtherCAT®                            |
| Cable type (abbreviation)       | 93G                                  |
| UL AWM style                    | 21694                                |
| Signal type/category            | EtherCAT® CAT5 (IEC 11801), 100 Mbps |
| Cable structure                 | 1x4xAWG22/7; SF/TQ                   |
| Conductor cross section         | 4x 0.34 mm²                          |
| AWG signal line                 | 22                                   |
| Conductor structure signal line | 7x 0.25 mm                           |

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## Technical data

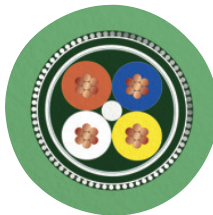
### Cable

|                                               |                                                                 |
|-----------------------------------------------|-----------------------------------------------------------------|
| Core diameter including insulation            | 1.55 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 $\pm$ 0.2 mm                                             |
| Minimum bending radius, fixed installation    | 3 x D                                                           |
| Minimum bending radius, flexible installation | 7 x D                                                           |
| 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                         | $\geq 500 \text{ M}\Omega \cdot \text{km}$                      |
| Loop resistance                               | $\leq 120 \text{ }\Omega \text{ (per km)}$                      |
| Wave impedance                                | $100 \text{ }\Omega \pm 15 \text{ }\Omega \text{ (at 100 MHz)}$ |
| Signal speed                                  | 0.66 c                                                          |
| Signal runtime                                | 5.3 ns/m                                                        |
| Coupling resistance                           | $\leq 20.00 \text{ m}\Omega/\text{m (At 10 MHz)}$               |
| 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                                                |

## Drawings

## Network cable - NBC-93G/... - 1408541

Cable cross section



EtherCAT® [93G]

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 272607xx |
| eCl@ss 4.1 | 27260701 |
| eCl@ss 5.0 | 27260701 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27279218 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27061801 |
| eCl@ss 9.0 | 27061801 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC000830 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC000830 |
| ETIM 6.0 | EC000830 |

#### UNSPSC

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