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## Network cable - VS-BU/PN-PPC/ME-93C-LI/2,0 - 1416230

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Assembled PROFINET cable, CAT5e, shielded, star quad, AWG 22 flexible cable conduit capable (7-wire), RAL 6018 (yellow-green), RJ45 socket module/IP20 for Freenet system, 4-pos. on RJ45 plug/IP67 push-pull metal housing, line, length 2 m

### Key Commercial Data

|              |                     |
|--------------|---------------------|
| Packing unit | 1 STK               |
| GTIN         | <br>4 046356 474818 |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 2 m |
|-----------------|-----|

#### Ambient conditions

|                      |      |
|----------------------|------|
| Degree of protection | IP20 |
|                      | IP67 |

#### General data

|                      |                                |
|----------------------|--------------------------------|
| Number of positions  | 4                              |
| Signal type/category | PROFINET CAT5 (IEC 11801:2002) |
| Overvoltage category | 1                              |
| Degree of pollution  | 2                              |

#### Characteristics head 1

|  |  |
|--|--|
| Head type                                | Socket module straight RJ45 Freenet / IP20 |
| No. of positions (pin connector pattern) | 4  |

#### Characteristics head 2

|  |                                     |
|--|-------------------------------------|
| Head type                                | Plug straight RJ45 Push Pull / IP67 |
| No. of positions (pin connector pattern) | 4                                   |
| Material (component)                     | Metal                               |

#### Standards and Regulations

|  |    |
|--|----|
| Flammability rating according to UL 94 | V0 |
|--|----|

#### Cable

|            |                          |
|------------|--------------------------|
| Cable type | PROFINET drag chain CAT5 |
|------------|--------------------------|

# Network cable - VS-BU/PN-PPC/ME-93C-LI/2,0 - 1416230

## Technical data

### Cable

|   |  |
|---|--|
| Cable type (abbreviation)                     | 93C  |
| Signal type/category                          | PROFINET CAT5 (IEC 11801), 100 Mbps                |
| 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            | 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    | 5 x D  |
| Minimum bending radius, flexible installation | 7.5 x D  |
| Number of bending cycles                      | 3000000  |
| Bending radius                                | 100 mm   |
| Traversing path                               | 10 m   |
| Traversing rate                               | 4 m/s  |
| Acceleration                                  | 4 m/s <sup>2</sup>                                 |
| Torsion force                                 | ± 30 °/m   |
| Tensile strength short-term/long-term         | ≤ 150 N  |
| Cable weight                                  | 61 kg/km   |
| Outer sheath, material                        | PUR  |
| Material, inner sheath                        | FRNC   |
| Material conductor insulation                 | PE   |
| Conductor material                            | Tin-plated Cu litz wires                           |
| Insulation resistance                         | ≥ 500 MΩ*km  |
| Conductor resistance                          | ≤ 120 Ω/km   |
| Wave impedance                                | 100 Ω ±15 Ω (at 1 ... 100 MHz)                     |
| Signal speed                                  | 0.66 c   |
| Signal runtime                                | 5.3 ns/m   |
| Coupling resistance                           | ≤ 20.00 mΩ/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 IEC 60332-1-2                         |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                |
| Other resistance                              | UV resistant                                       |

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## Technical data

### Cable

|   |   |
|---|---|
| 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 | 27060308 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC000830 |
| ETIM 4.0 | EC002599 |
| ETIM 5.0 | EC002599 |

### UNSPSC

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

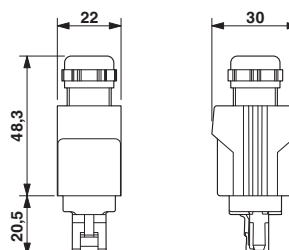
## Drawings

Cable cross section



PROFINET drag chain CAT5 [93C]

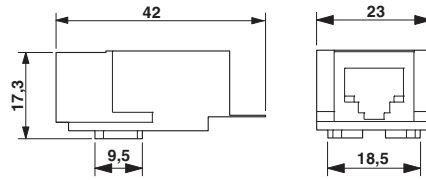
Dimensional drawing



Push-pull RJ45 connector IP65/67

## Network cable - VS-BU/PN-PPC/ME-93C-LI/2,0 - 1416230

Dimensional drawing



RJ45 socket insert

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