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Network cable, Ethernet (100 Mbps), PROFINET (100 Mbps), EtherCAT<sup>®</sup> (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded, Plug straight M8 / IP67, Coding: A, on free cable end, Cable length: 10 m



### Key Commercial Data

| Packing unit                         | 1 STK           |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 774659 |
| GTIN                                 | 4046356774659   |
| Weight per Piece (excluding packing) | 680.000 g       |
| Custom tariff number                 | 85444290        |
| Country of origin                    | Poland          |

### Technical data

#### Dimensions

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

#### Ambient conditions

| Degree of protection            | IP65                         |
|---------------------------------|------------------------------|
|                                 | IP67                         |
| Ambient temperature (operation) | -25 °C 90 °C (M8 connectors) |

#### General data

| Rated current at 40°C | 4 A                |
|-----------------------|--------------------|
| Rated voltage         | 30 V               |
| Number of positions   | 4                  |
| Signal type/category  | Ethernet, 100 Mbps |



### Technical data

#### General data

|                       | PROFINET, 100 Mbps               |
|-----------------------|----------------------------------|
|                       | EtherCAT <sup>®</sup> , 100 Mbps |
| Standards/regulations | M8 connector IEC 61076-2-104     |

#### Characteristics head 1

| Head type                                | Plug straight M8 / IP67                            |
|--|--|
| No. of positions (pin connector pattern) | 4  |
| Coding                                   | A (Standard)                                       |
| Color                                    | black  |
| Material (component)                     | CuSn (Contact)                                     |
|  | Ni/Au (Contact surface)                            |
|  | TPU GF (Contact carriers)                          |
|  | TPU, hardly inflammable, self-extinguishing (Grip) |
|  | Zinc die-cast, nickel-plated (Screw connection)    |
| Insulation resistance                    | ≥ 100 MΩ   |
| Insertion/withdrawal cycles              | ≥ 100  |
| Torque                                   | 0.2 Nm   |
| Ambient temperature (operation)          | -25 °C 90 °C                                       |

Characteristics head 2

| Head type | free cable end |
|-----------|----------------|
|           | -              |

### Standards and Regulations

| Standard designation  | M8 connector    |
|-----------------------|-----------------|
| Standards/regulations | IEC 61076-2-104 |

Cable

| Cable type                         | PROFINET PVC stranded CAT5                         |
|------------------------------------|--|
| Cable type (abbreviation)          | 93B  |
| UL AWM style                       | 21694  |
| 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 | 1.55 mm  |
| Wire colors                        | White, yellow, blue, orange                        |
| Overall twist                      | Star quad  |
| Shielding                          | Aluminum-coated foil, tinned copper braided shield |



## Technical data

Cable

| 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   |
| 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 M $\Omega$ *km                       |
| Loop resistance                               | $\leq$ 120 $\Omega$ (per km)                    |
| Wave impedance                                | 100 Ω ±15 Ω (at 100 MHz)                        |
| Signal speed                                  | 0.66 c  |
| Signal runtime                                | 5.3 ns/m  |
| Coupling resistance                           | $\leq$ 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 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



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Schematic diagram



Circuit diagram

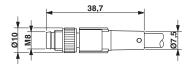
Pin assignment M8 plug, 4-pos., view male side

Cable cross section



PROFINET PVC stranded CAT5 [93B]

Dimensional drawing



Contact assignment of the M8 plug

2

M8 x 1 male plug, straight version

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