

# Connection cable, Ethernet

## V1SD-G-GN20M-PUR-E1S-V1D-G

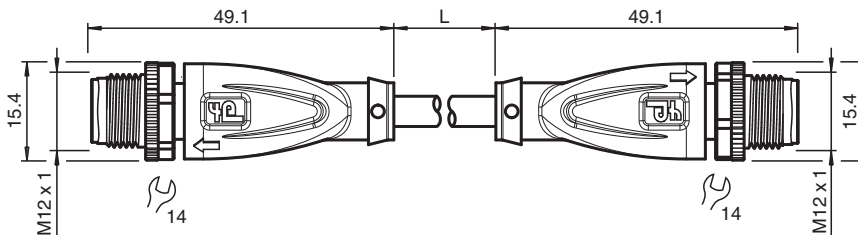


- Hard-wearing PUR cable
- Suitable for drag chains and abrasion resistant
- D coding for Ethernet
- Conforms to PROFINET
- CAT5/CAT5e cable
- Degree of protection IP68 / IP69
- Free of paint wetting interfering substances
- UL listed for USA and Canada
- Halogen-free
- Specific design protects against loosening and inaccurate installation

Ethernet bus cable M12 plug straight to M12 plug straight D-coded, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable



### Dimensions



### Technical Data

#### General specifications

|                    |  |                  |
|--------------------|--|------------------|
| <b>Connector 1</b> |  |                  |
| Connection         |  | plug             |
| Construction type  |  | M12              |
| Style              |  | straight         |
| Locking            |  | screw connection |
| Number of pins     |  | 4                |
| Coding             |  | D-coded          |
| <b>Connector 2</b> |  |                  |
| Connection         |  | plug             |
| Construction type  |  | M12              |
| Style              |  | straight         |
| Locking            |  | screw connection |
| Number of pins     |  | 4                |
| Coding             |  | D-coded          |

#### Electrical specifications

|                   |                |                        |
|-------------------|----------------|------------------------|
| Operating voltage | U <sub>B</sub> | max. 48 V AC / 60 V DC |
|-------------------|----------------|------------------------|

#### Conformity

|                      |  |                                        |
|----------------------|--|----------------------------------------|
| Degree of protection |  | EN 60529                               |
| Plug connection      |  | connector M12 x 1 : IEC 61076-2-101    |
| Component category   |  | CAT5 (IEC 11801) , CAT5e (IEC 61156-6) |
| Flammability         |  | IEC 60332-1-2 / UL 2556                |

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

### Approvals and certificates

|                |                                                             |
|----------------|-------------------------------------------------------------|
| UL approval    | AWM STYLE 20549 80 °C 300V AWM I A/B 80 °C 300V FT2 (cable) |
| UL File Number | E231213                                                     |

### Ambient conditions

|                     |                                                                    |
|---------------------|--------------------------------------------------------------------|
| Ambient temperature |                                                                    |
| Plug connector      | -40 ... 90 °C (-40 ... 194 °F)                                     |
| Cable, fixed        | -30 ... 70 °C (-22 ... 158 °F) , UL: -20 ... 70 °C (-4 ... 158 °F) |
| Cable, flexing      | -20 ... 70 °C (-4 ... 158 °F)                                      |

### Mechanical specifications

|                        |   |                                                                   |
|------------------------|---|-------------------------------------------------------------------|
| Plug connector         |   |                                                                   |
| Tightening torque      |   | 0.6 Nm                                                            |
| Loosening protection   |   | available                                                         |
| Tool installation      |   | straight knurling and hexagon nut SW = 14 mm                      |
| Mating cycles          |   | min. 100                                                          |
| Shielding              |   | shield connected to screw connection                              |
| Degree of protection   |   | IP68 / IP69                                                       |
| Cable                  |   | according to IEC/EN 60228 (DIN VDE 0295) class 5                  |
| Sheath diameter        |   | 6 mm                                                              |
| Bending radius         |   | > 10 x cable diameter, moving<br>> 8 x cable diameter, fixed      |
| Sheath stripping force |   | max. 60 N / 100 mm                                                |
| Sheath color           |   | green (similar to RAL 6018)                                       |
| Number of cores        |   | 4                                                                 |
| Core cross section     |   | 0.34 mm <sup>2</sup> / 22 AWG                                     |
| Cores color            |   | Core 1: yellow<br>Core 2: white<br>Core 3: orange<br>Core 4: blue |
| Core construction      |   | 7 x 0.254 mm Ø<br>twisted quad                                    |
| Shield                 |   | aluminum-lined polyester foil<br>Tinned copper braiding           |
| Length                 | L | 20 m                                                              |
| Drag chain suitability |   |                                                                   |
| Drag chain cycles      |   | max. 1000000                                                      |
| Motion velocity        |   | max. 3 m/s                                                        |
| Traverse distance      |   | max. 5 m                                                          |
| Acceleration           |   | max. 2 m/s <sup>2</sup>                                           |

### Material

|                  |                             |
|------------------|-----------------------------|
| PWIS free        | yes                         |
| Halogen-free     | yes                         |
| Plug connector   |                             |
| Screw connection | Zinc diecast, nickel-plated |
| Body             | TPU, black                  |
| Contact surface  | Au                          |
| Flammability     | V-2                         |
| Cable            |                             |
| Sheathing        | PUR based on polyether      |
| Core insulation  | PP                          |
| Flammability     | FT2                         |

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Connection



Accessories

|                                                                                     |                              |                                                  |
|-------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------|
|    | <b>MH V1-SCREWDRIVER</b>     | Torque screwdriver (0.6 Nm)                      |
|    | <b>MH V1-BIT M12</b>         | plug-in cap M12                                  |
|    | <b>V1/V3-LABELHOLDER</b>     | Label holder                                     |
|    | <b>V1/V3-LABEL</b>           | Label plate                                      |
|    | <b>MH V1-Holder</b>          | Modular universal holder for M12 connectors      |
|   | <b>V1-CLIP</b>               | Unlocking protector for M12 connector            |
|  | <b>V1-MARKING-RING-COLOR</b> | Marking rings for M12 connectors, various colors |

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