



## Cable connector

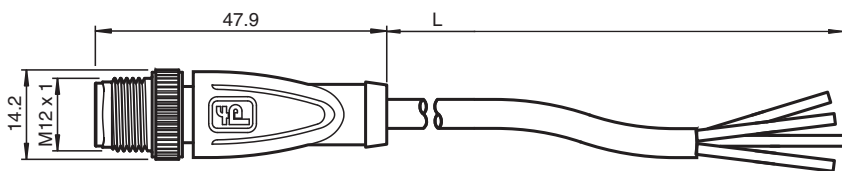
### V1S-G-BK1M-PUR-U

- Suitable for drag chains and abrasion resistant
- Suitable for robotic applications / torsion resistant
- Degree of protection IP67 / IP68 / IP69
- Free from substances that impair paint wetting
- Resistant to microbes and hydrolysis
- cURus approval
- UV resistant
- Halogen-free
- Knurled nut suitable for tool assembly
- Immunity to vibration, with mechanical latching

Male cordset single-ended M12 straight A-coded, 4-pin, PUR cable black, UL-approved, drag chain suitable, torsion resistant



## Dimensions



## Technical Data

### General specifications

|                   |  |                  |
|-------------------|--|------------------|
| Connector 1       |  |                  |
| Connection        |  | Male connector   |
| Construction type |  | M12              |
| Style             |  | straight         |
| Locking           |  | screw connection |
| Number of pins    |  | 4                |
| Coding            |  | A-coded          |
| Connector 2       |  |                  |
| Connection        |  | cable end        |
| UL File Number    |  | E231213          |

### Electrical specifications

|                   |                |                  |
|-------------------|----------------|------------------|
| Operating voltage | U <sub>B</sub> | max. 250 V AC/DC |
| Operating current | I <sub>B</sub> | max. 4 A         |

### Conformity

|                      |          |
|----------------------|----------|
| Degree of protection | EN 60529 |
|----------------------|----------|

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

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## Technical Data

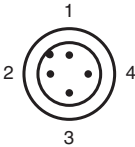
|                                   |   |                                                                 |
|-----------------------------------|---|-----------------------------------------------------------------|
| Plug connection                   |   | connector M12 x 1 : IEC 61076-2-101                             |
| Flammability                      |   | UL 1581; DIN EN 60332-2-2                                       |
| Halogen-free                      |   | IEC 60754-1                                                     |
| <b>Approvals and certificates</b> |   |                                                                 |
| UL approval                       |   | AWM STYLE 20549 AWM I/II A/B 80°C 300V FT2 (cable)              |
| <b>Ambient conditions</b>         |   |                                                                 |
| Ambient temperature               |   |                                                                 |
| Plug connector                    |   | -40 ... 90 °C (-40 ... 194 °F)                                  |
| Cable, fixed                      |   | -40 ... 80 °C (-40 ... 176 °F)                                  |
| Cable, flexing                    |   | -20 ... 80 °C (-4 ... 176 °F)                                   |
| Pollution degree                  |   | 3                                                               |
| <b>Mechanical specifications</b>  |   |                                                                 |
| Plug connector                    |   |                                                                 |
| Tightening torque                 |   | 0.6 Nm                                                          |
| Loosening protection              |   | available                                                       |
| Tool installation                 |   | straight knurling                                               |
| Mating cycles                     |   | min. 100                                                        |
| Degree of protection              |   | IP67 / IP68 / IP69                                              |
| Cable                             |   | according to IEC/EN 60228 (DIN VDE 0295) class 6                |
| Sheath diameter                   |   | 4.3 mm                                                          |
| Bending radius                    |   | > 10 x cable diameter, moving<br>> 5 x cable diameter, fixed    |
| Sheath color                      |   | black (similar to RAL 9005)                                     |
| Number of cores                   |   | 4                                                               |
| Core cross-section                |   | 0.34 mm <sup>2</sup>                                            |
| Cores color                       |   | Core 1: brown<br>Core 2: white<br>Core 3: blue<br>Core 4: black |
| Core construction                 |   | 42 x 0.1 mm Ø                                                   |
| Length                            | L | 1 m                                                             |
| Cable code                        |   | Li 9Y 11Y 4 x 0.34                                              |
| Drag chain suitability            |   |                                                                 |
| Drag chain cycles                 |   | min. 5000000                                                    |
| Motion velocity                   |   | max. 3.3 m/s                                                    |
| Traverse distance                 |   | max. 5 m                                                        |
| Acceleration                      |   | max. 5 m/s <sup>2</sup>                                         |
| Torsion cycles                    |   | min. 1000000                                                    |
| Torsional stress                  |   | ± 180 °/m                                                       |
| <b>Material</b>                   |   |                                                                 |
| LABS free                         |   | yes                                                             |
| Halogen-free                      |   | yes                                                             |
| Plug connector                    |   |                                                                 |
| Knurled screw connection          |   | Zinc die-casting, nickel-plated                                 |
| Body                              |   | TPU, black                                                      |
| Contact surface                   |   | Au                                                              |
| Flammability                      |   | V-2                                                             |
| Cable                             |   |                                                                 |
| Sheathing                         |   | PUR based on polyether                                          |
| Core insulation                   |   | PP                                                              |
| UV resistance                     |   | yes                                                             |
| Chemical resistance               |   | good                                                            |
| Oil resistance                    |   | yes                                                             |
| Cooling lubricant resistance      |   | yes                                                             |

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Technical Data

|                       |     |
|-----------------------|-----|
| Microbial resistance  | yes |
| Hydrolysis resistance | yes |
| Flammability          | FT2 |

Connection Assignment



|   |    |
|---|----|
| 1 | BN |
| 2 | WH |
| 3 | BU |
| 4 | BK |

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