



## Connection cable

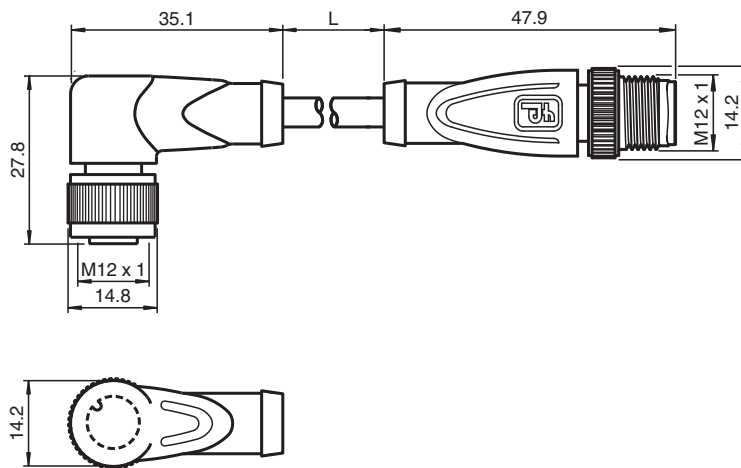
### V1-W-E8-BK20M-PUR-U-V1-G

- 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
- Built-in LED, as operating and function indicator
- Resistant to microbes and hydrolysis
- UV resistant
- cURus approval
- Halogen-free
- Knurled nut suitable for tool assembly
- Immunity to vibration, with mechanical latching

Cordset M12 socket angled A-coded LED 4-pin to M12 plug straight A-coded 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant



## Dimensions



## Technical Data

### General specifications

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

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

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## Technical Data

|                                   |   |                            |
|-----------------------------------|---|----------------------------|
| UL File Number                    | E231213   |                            |
| <b>Indicators/operating means</b> |   |                            |
| LED green                         | Operating display   |                            |
| LED yellow                        | Functional display pin 4  |                            |
| LED red                           | Functional display pin 2  |                            |
| <b>Electrical specifications</b>  |   |                            |
| Operating voltage                 | U <sub>B</sub>  | max. 24 V DC -20 % / +25 % |
| Operating current                 | I <sub>B</sub>  | max. 4 A                   |
| <b>Conformity</b>                 |   |                            |
| Degree of protection              | EN 60529  |                            |
| 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 stripping force            | max. 80 N / 300 mm  |                            |
| 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   | 20 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                    |   |                            |

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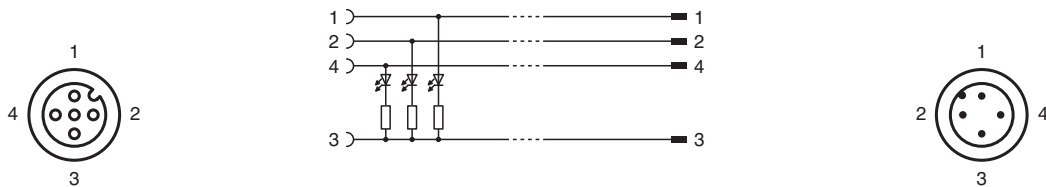
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### Technical Data

|                              |                             |
|------------------------------|-----------------------------|
| Knurled screw connection     | Zinc diecast, nickel-plated |
| Body                         | TPU, transparent/black      |
| Contact surface              | Au                          |
| Flammability                 | V-2                         |
| <b>Cable</b>                 |                             |
| Sheathing                    | PUR based on polyether      |
| Core insulation              | PP                          |
| UV resistance                | yes                         |
| Chemical resistance          | good                        |
| Oil resistance               | yes                         |
| Cooling lubricant resistance | yes                         |
| Microbial resistance         | yes                         |
| Hydrolysis resistance        | yes                         |
| Flammability                 | FT2                         |

### Connection Assignment



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