



## Connection cable

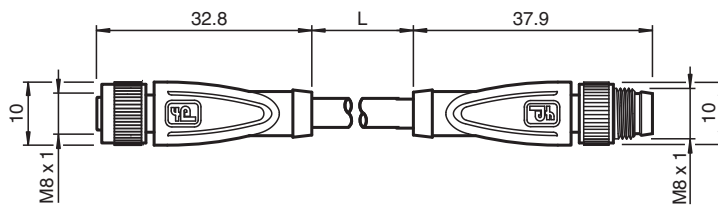
### V31-GM-BK5M-PUR-U-V31-GM

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

Cordset M8 socket straight to M8 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  | M8               |
| Style              | straight         |
| Locking            | screw connection |
| Number of pins     | 4                |
| Coding             | A-coded          |
| <b>Connector 2</b> |                  |
| Connection         | plug             |
| Construction type  | M8               |
| Style              | straight         |
| Locking            | screw connection |
| Number of pins     | 4                |
| Coding             | A-coded          |
| UL File Number     | E231213          |

Release date: 2021-02-15 Date of issue: 2021-02-15 Filename: 240813-0003\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

## Technical Data

| Electrical specifications  |                |   |
|----------------------------|----------------|---|
| Operating voltage          | U <sub>B</sub> | max. 30 V AC/DC   |
| Operating current          | I <sub>B</sub> | max. 3 A  |
| Conformity                 |                |   |
| Degree of protection       |                | EN 60529  |
| Plug connection            |                | connector M8 x 1 : IEC 61076-2-104                              |
| Flammability               |                | UL 1581; DIN EN 60332-2-2                                       |
| Halogen-free               |                | IEC 60754-1   |
| Approvals and certificates |                |   |
| UL approval                |                | AWM STYLE 20549 AWM I/II A/B 80°C 300V FT2 (cable)              |
| Ambient conditions         |                |   |
| 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   |
| Mechanical specifications  |                |   |
| Plug connector             |                |   |
| Tightening torque          |                | 0.4 Nm  |
| Loosening protection       |                | available   |
| Tool installation          |                | straight knurling   |
| Mating cycles              |                | min. 100  |
| Degree of protection       |                | IP67  |
| 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              | 5 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   |
| Material                   |                |   |
| LABS free                  |                | yes   |
| Halogen-free               |                | yes   |
| Plug connector             |                |   |
| Screw connection           |                | Zinc diecast, nickel-plated                                     |
| Body                       |                | TPU, black  |
| Contact surface            |                | Au  |
| Flammability               |                | V-2   |
| Cable                      |                |   |

Release date: 2021-02-15 Date of issue: 2021-02-15 Filename: 240813-0003\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

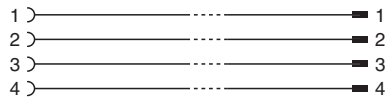
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

 PEPPERL+FUCHS

### Technical Data

|                              |                        |
|------------------------------|------------------------|
| 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



Release date: 2021-02-15 Date of issue: 2021-02-15 Filename: 240813-0003\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com