

# Connection cable

## V31-GM-BK1,5M-PUR-U-V31-GM

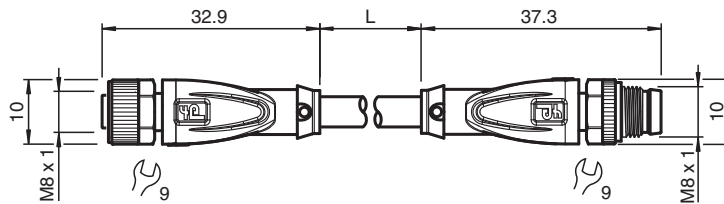


- Suitable for drag chains and abrasion resistant
- Suitable for robotic applications / torsion resistant
- Degree of protection IP68
- Free of paint wetting interfering substances
- Resistant to microbes and hydrolysis
- UV resistant
- UL listed for USA and Canada
- Halogen-free
- Specific design protects against loosening and inaccurate installation

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

|                   |                  |
|-------------------|------------------|
| Connector 1       |                  |
| Connection        | socket           |
| Construction type | M8               |
| Style             | straight         |
| Locking           | screw connection |
| Number of pins    | 4                |
| Coding            | A-coded          |
| Connector 2       |                  |
| Connection        | plug             |
| Construction type | M8               |
| Style             | straight         |
| Locking           | screw connection |
| Number of pins    | 4                |
| Coding            | A-coded          |

#### Electrical specifications

|                   |       |                 |
|-------------------|-------|-----------------|
| Operating voltage | $U_B$ | max. 30 V AC/DC |
| Operating current | $I_B$ | 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                        |

Release date: 2023-06-29 Date of issue: 2023-06-29 Filename: 240813-0005\_eng.pdf

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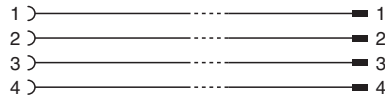
| Approvals and certificates   |   |   |
|------------------------------|---|---|
| UL approval                  |   | AWM STYLE 20549 AWM I/II A/B 80°C 300V FT2 (cable)              |
| UL File Number               |   | E231213   |
| Ambient conditions           |   |   |
| Ambient temperature          |   |   |
| Plug connector               |   | -40 ... 90 °C (-40 ... 194 °F)                                  |
| Cable, fixed                 |   | -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 and hexagon nut SW = 9 mm                     |
| Mating cycles                |   | min. 100  |
| Degree of protection         |   | IP68  |
| Cable                        |   |   |
| 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 | 1.5 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                     |   |   |
| PWIS free                    |   | yes   |
| Halogen-free                 |   | yes   |
| Plug connector               |   |   |
| Screw connection             |   | Zinc diecast, nickel-plated                                     |
| Body                         |   | TPU, black  |
| Seal                         |   | FKM   |
| Contact surface              |   | gold plated (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



### Accessories

|   |                          |  |
|---|--------------------------|--|
|    | <b>MH V3-SCREWDRIVER</b> | Torque screwdriver (0.4 Nm)                |
|    | <b>MH V3-BIT M8</b>      | plug-in cap for M8                         |
|   | <b>V1/V3-LABELHOLDER</b> | Label holder                               |
|  | <b>V1/V3-LABEL</b>       | Label plate                                |
|  | <b>MH V3-Holder</b>      | Modular universal holder for M8 connectors |

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