



## Model Number

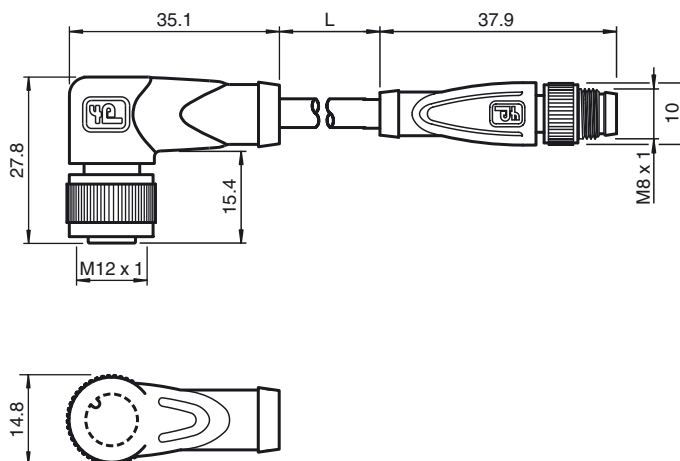
**V1-W-BK1M-PUR-U-V31-GM**

Connection cable, M12 to M8, PUR cable, 4-pin

## Features

- Suitable for drag chains
- Suitable for robotic applications / torsion resistant
- Degree of protection IP67 / IP68 / IP69K
- Free from substances that impair paint wetting
- Resistant to microbes and hydrolysis
- UL Recognized Component
- Halogen-free
- Gold plated contacts
- Flame resistant cable
- Knurled nut suitable for tool assembly
- Immunity to vibration, with mechanical latching

## Dimensions



## Technical data

### General specifications

|                     |                |
|---------------------|----------------|
| Number of pins      | 4              |
| Connection 1        | socket         |
| Construction type 1 | right angle    |
| Threading 1         | M12            |
| Connection 2        | Male connector |
| Construction type 2 | straight       |
| Threading 2         | M8             |
| UL File Number      | E231213        |

### Electrical specifications

|                   |       |                 |
|-------------------|-------|-----------------|
| Operating voltage | $U_B$ | max. 30 V AC/DC |
| Operating current | $I_B$ | max. 3 A        |

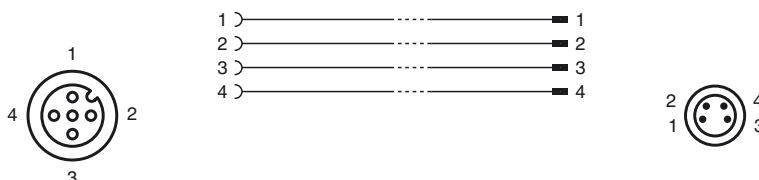
### Ambient conditions

|                     |                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------|
| Ambient temperature | cable, fixed: -40 ... 80 °C (-40 ... 176 °F)<br>cable, flexing: -25 ... 80 °C (-13 ... 176 °F) |
| Pollution degree    | 3                                                                                              |

### Mechanical specifications

|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| Contact elements       | spring-loaded contact socket                                    |
| Degree of protection   | IP67                                                            |
| Cable code             | Li 9Y 11Y 4 x 0.34                                              |
| Material               |                                                                 |
| Contacts               | CuSn / Au                                                       |
| Contact surface        | Au                                                              |
| Body                   | TPU, black                                                      |
| Cable                  | PUR                                                             |
| Slotted nut            | Diecast zinc                                                    |
| Sleeve connector       | Diecast zinc                                                    |
| Core insulation        | PP                                                              |
| Cable                  | according to IEC/EN 60228 (DIN VDE 0295) class 6                |
| Sheath diameter        | Ø 4.3 mm                                                        |
| Bending radius         | > 10 x cable diameter, moving<br>> 5 x cable diameter, fixed    |
| Color                  | black                                                           |
| 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 |
| Conductor construction | 42 x 0.1 mm Ø                                                   |
| Length                 | L 1 m                                                           |
| Drag chain suitability |                                                                 |
| Drag chain cycles      | ≥ 5000000                                                       |
| Motion velocity        | ≤ 3.3 m/s                                                       |

## Electrical connection





|                                                 |                                                                           |
|-------------------------------------------------|---------------------------------------------------------------------------|
| Traverse distance                               | 5 m horizontal                                                            |
| Acceleration                                    | $\leq 5 \text{ m/s}^2$                                                    |
| Torsion cycles                                  | $\geq 1000000$                                                            |
| Torsional stress                                | $\pm 180 \text{ }^\circ/\text{m}$                                         |
| Flammability                                    |                                                                           |
| Contact carrier                                 | HB                                                                        |
| Housing                                         | V-2                                                                       |
| Cable                                           | FT2                                                                       |
| <b>Compliance with standards and directives</b> |                                                                           |
| Standard conformity                             |                                                                           |
| Degree of protection                            | EN 60529                                                                  |
| Flammability                                    | IEC 60332-1-2                                                             |
| Halogen-free                                    | IEC 60754-1                                                               |
| Specification                                   | connector M8 x 1 : IEC 61076-2-104<br>connector M12 x 1 : IEC 61076-2-101 |
| <b>Approvals and certificates</b>               |                                                                           |
| UL approval                                     | AWM STYLE 20549 80 °C 300V AWM I A/B 80 °C 300V FT2 (cable)               |

**Accessories****MH V1-SCREWDRIVER**

torque screwdriver (0.6 Nm)

**MH V1-BIT M12**

plug-in cap M12

**V1/V3-LABELHOLDER**

Label holder

**V1/V3-LABEL**

Label plate

**MH V1-Holder**

Modular universal holder for M12 connectors

**V1-MARKING-RING-BLUE**

Marking ring for M12 plug

**V1-MARKING-RING-GREEN**

Marking ring for M12 plug

**V1-MARKING-RING-ORANGE**

Marking ring for M12 plug

**V1-MARKING-RING-RED**

Marking ring for M12 plug

**V1-MARKING-RING-WHITE**

Marking ring for M12 plug

**V1-MARKING-RING-YELLOW**

Marking ring for M12 plug