

## Connection cable

### V1-G-BK5M-PUR-R1-V1-G

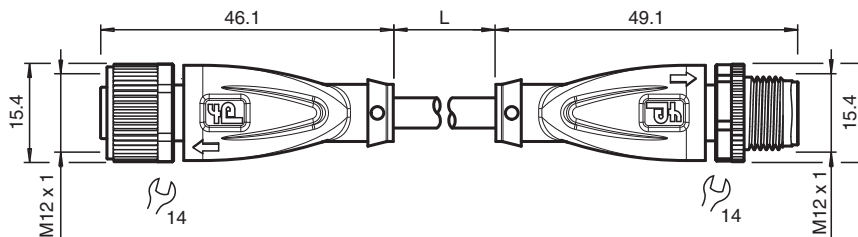


- Highly flexible - suitable for robotics
- Suitable for drag chains and abrasion resistant
- Suitable for robotic applications / torsion resistant
- Degree of protection IP68 / IP69
- Free of paint wetting interfering substances
- Resistant to microbes and hydrolysis
- Oil resistant
- Resistant to salt water
- UL listed for USA and Canada
- Halogen-free
- Specific design protects against loosening and inaccurate installation

Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PUR cable black, UL approved, drag chain suitable, torsion resistant, oil and salt water resistant, robotics



## Dimensions



## Technical Data

### General specifications

|                                  |       |                                     |
|----------------------------------|-------|-------------------------------------|
| <b>Connector 1</b>               |       |                                     |
| Connection                       |       | socket                              |
| Construction type                |       | M12                                 |
| Style                            |       | straight                            |
| 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                             |
| <b>Electrical specifications</b> |       |                                     |
| Operating voltage                | $U_B$ | max. 250 V AC/DC                    |
| Operating current                | $I_B$ | max. 4 A                            |
| <b>Conformity</b>                |       |                                     |
| Degree of protection             |       | EN 60529                            |
| Plug connection                  |       | connector M12 x 1 : IEC 61076-2-101 |

Release date: 2023-07-13 Date of issue: 2023-07-14 Filename: 70105646\_eng.pdf

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

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## Technical Data

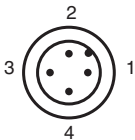
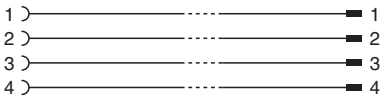
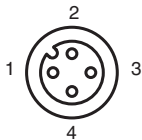
|                                   |   |                                                                 |
|-----------------------------------|---|-----------------------------------------------------------------|
| Flammability                      |   | UL 758 / 1581                                                   |
| Halogen-free                      |   | DIN VDE 0472-815<br>DIN EN 50267-2-1                            |
| Microbial resistance              |   | DIN EN 50525-2-21 / DIN VDE 0282-10                             |
| Hydrolysis resistance             |   | DIN EN 50525-2-21                                               |
| Oil resistance                    |   | DIN EN 60811-2-1                                                |
| <b>Approvals and certificates</b> |   |                                                                 |
| UL approval                       |   | AWM STYLE 20549 80 °C 300V AWM I A/B 80 °C 300V FT2 (cable)     |
| UL File Number                    |   | E231213                                                         |
| <b>Ambient conditions</b>         |   |                                                                 |
| Ambient temperature               |   |                                                                 |
| Plug connector                    |   | -40 ... 90 °C (-40 ... 194 °F)                                  |
| Cable, fixed                      |   | -40 ... 80 °C (-40 ... 176 °F)                                  |
| Cable, flexing                    |   | -25 ... 80 °C (-13 ... 176 °F)                                  |
| Pollution degree                  |   | 3                                                               |
| <b>Mechanical specifications</b>  |   |                                                                 |
| Plug connector                    |   |                                                                 |
| Tightening torque                 |   | 0.6 Nm                                                          |
| Loosening protection              |   | available                                                       |
| Tool installation                 |   | straight knurling and hexagon nut SW = 14 mm                    |
| Mating cycles                     |   | min. 100                                                        |
| Degree of protection              |   | 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. 50 N / 300 mm                                              |
| Sheath color                      |   | black (similar to RAL 7021)                                     |
| 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 11YM 4 x 0.34                                             |
| <b>Drag chain suitability</b>     |   |                                                                 |
| Drag chain cycles                 |   | min. 10000000                                                   |
| Motion velocity                   |   | max. 3 m/s                                                      |
| Traverse distance                 |   | max. 10 m                                                       |
| Acceleration                      |   | max. 10 m/s <sup>2</sup>                                        |
| Torsion cycles                    |   | min. 10000000                                                   |
| Torsional stress                  |   | ± 360 °/m                                                       |
| <b>Material</b>                   |   |                                                                 |
| 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                                          |

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Technical Data

|                       |     |
|-----------------------|-----|
| Core insulation       | PP  |
| Salt water resistance | yes |
| Oil resistance        | yes |
| Microbial resistance  | yes |
| Hydrolysis resistance | yes |
| Flammability          | FT2 |

Connection



Accessories

|                                                                                     |                              |                                                  |
|-------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------|
|    | <b>MH V1-SCREWDRIVER</b>     | Torque screwdriver (0.6 Nm)                      |
|   | <b>MH V1-BIT M12</b>         | plug-in cap M12                                  |
|  | <b>V1/V3-LABELHOLDER</b>     | Label holder                                     |
|  | <b>V1/V3-LABEL</b>           | Label plate                                      |
|  | <b>MH V1-Holder</b>          | Modular universal holder for M12 connectors      |
|  | <b>V1-CLIP</b>               | Unlocking protector for M12 connector            |
|  | <b>V1-MARKING-RING-COLOR</b> | Marking rings for M12 connectors, various colors |

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