

## Connection cable

### V1-G-BK9,5M-PUR-U-V1-G



- 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
- UV resistant
- 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



## Dimensions



## Technical Data

### General specifications

|                           |       |  |                                     |
|---------------------------|-------|--|-------------------------------------|
| Connector 1               |       |  |                                     |
| Connection                |       |  | socket                              |
| Construction type         |       |  | M12                                 |
| Style                     |       |  | straight                            |
| Locking                   |       |  | screw connection                    |
| Number of pins            |       |  | 4                                   |
| Coding                    |       |  | A-coded                             |
| Connector 2               |       |  |                                     |
| Connection                |       |  | plug                                |
| Construction type         |       |  | M12                                 |
| Style                     |       |  | straight                            |
| Locking                   |       |  | screw connection                    |
| Number of pins            |       |  | 4                                   |
| Coding                    |       |  | A-coded                             |
| Electrical specifications |       |  |                                     |
| Operating voltage         | $U_B$ |  | max. 250 V AC/DC                    |
| Operating current         | $I_B$ |  | max. 4 A                            |
| Conformity                |       |  |                                     |
| 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                         |

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## Technical Data

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Approvals and certificates</b> |   |   |
| UL approval                       |   | AWM STYLE 20549 AWM I/II 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                    |   | -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 and hexagon nut SW = 14 mm                    |
| Mating cycles                     |   | min. 100  |
| Degree of protection              |   | IP68 / IP69   |
| 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 | 9.5 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   |
| Mass                              |   | 49.5 g  |
| <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  |
| Core insulation                   |   | PP  |
| UV resistance                     |   | yes   |
| Chemical resistance               |   | good  |
| Oil resistance                    |   | yes   |

### Technical Data

|                              |     |
|------------------------------|-----|
| Cooling lubricant resistance | yes |
| Microbial resistance         | yes |
| Hydrolysis resistance        | yes |
| Flammability                 | FT2 |

### Connection Assignment

