

**Overview**

- M12, female, A-coded, 4-poles; PUR, 2500 cm, free cable end
- Dragchain capable; suitable for robotics  $\pm 180^\circ/\text{m}$
- Head A: IP65, IP66K, IP67
- Cable: good resistance against chemicals, flames, oils



**Technical data**

| Side A                             |                                       |
|------------------------------------|---------------------------------------|
| Head A: Connection                 | M12                                   |
| Head A: Angle cable outlet         | 90°                                   |
| Head A: Gender                     | Female                                |
| Head A: Coding                     | A                                     |
| Head A: No. of poles               | 4                                     |
| Head A: LED                        | Yes                                   |
| Head A: LED switching status       | PNP                                   |
| Head A: Width across flats         | AF13                                  |
| Head A: Tightening torque          | 0.6 Nm                                |
| Head A: Knurled nut material       | Zinc-pressure die casting, surface Ni |
| Head A: Body color                 | Transparent                           |
| Head A: Gasket material            | FKM                                   |
| Labeling sleeve side A             | Yes                                   |
| Side B                             |                                       |
| Head B: Connection                 | Open-ended wires                      |
| Labeling sleeve side B             | Yes                                   |
| Cables                             |                                       |
| Cable length                       | 2500 cm                               |
| Length tolerance                   | $\pm 37.5$ cm                         |
| Stripping length                   | 20 mm                                 |
| Shielded                           | No                                    |
| Conductor structure                | 42 $\times$ 0.1 mm                    |
| AWG                                | 22                                    |
| External sheath: Material          | PUR                                   |
| External sheath: Color             | Black                                 |
| Cable diameter                     | 4.5 mm $\pm$ 5%                       |
| Wire cross section                 | 0.34 mm <sup>2</sup>                  |
| Cable                              |                                       |
| External sheath: Shore hardness    | 90 $\pm$ 5 A                          |
| Cable: Temperature range (mobile)  | - 25 ...+ 80 °C                       |
| Cable: Temperature range (fixed)   | - 40 ...+ 80 °C                       |
| Operating voltage (only UL listed) | 30 V DC                               |
| Shielded                           | No                                    |
| Bending radius (fixed)             | 22.5 mm                               |
| Number of wires                    | 4                                     |

| Cable                              |                                 |
|------------------------------------|---------------------------------|
| Number and diameter of wires       | 4x0.34                          |
| Length tolerance                   | $\pm 37.5$ cm                   |
| Cable length                       | 2500 cm                         |
| Acceleration (C-track)             | max. 10 m/s <sup>2</sup>        |
| AWG                                | 22                              |
| Bending radius (fixed)             | min. 5 $\times$ outer diameter  |
| Torsion speed                      | max. 35 cycles/min              |
| Bending radius (mobile)            | min. 10 $\times$ outer diameter |
| Cable type                         | 3                               |
| Cable weight                       | approx. 36.3 g/m                |
| Conductor structure                | 42 $\times$ 0.1 mm              |
| Cable diameter                     | 4.5 mm $\pm$ 5%                 |
| Conductor: Material                | Copper, bare                    |
| External sheath: Material          | PUR                             |
| Insulation: Material               | PP                              |
| No. of bending cycles (C-track)    | approx. 10000000 Cycles         |
| Nominal voltage                    | 300 V                           |
| No. of torsion cycles              | approx. 2000000 Cycles          |
| Paired stranding                   | No                              |
| Single wire diameter               | 0.1 mm                          |
| Cable: Test voltage                | 2.5 kV                          |
| Torsion stress in °                | $\pm 180^\circ/\text{m}$        |
| Total stranding                    | 4 wires strand                  |
| Travel speed (C-track)             | max. 3 m/s                      |
| Traversing path (horizontal)       | max. 10 m                       |
| Wire cross section                 | 0.34 mm <sup>2</sup>            |
| Wire processing                    | No                              |
| Wire diameter incl. isolation      | 1.25 mm $\pm$ 5%                |
| External sheath: Color             | Black                           |
| Electrical data                    |                                 |
| Operating voltage                  | 24 V DC $\pm$ 25 %              |
| Operating voltage (only UL listed) | 30 V DC                         |
| Nominal voltage                    | 300 V                           |
| Contact resistance                 | max. 30 mOhm                    |
| Operating current per contact      | max. 4 A                        |

**Technical data**

**Mechanical data**

|                                 |                          |
|---------------------------------|--------------------------|
| Head A: Degree of protection    | IP65, IP66K, IP67        |
| Bending radius (mobile)         | min. 10 × outer diameter |
| Bending radius (fixed)          | min. 5 × outer diameter  |
| No. of bending cycles (C-track) | approx. 10000000 Cycles  |
| Torsion speed                   | max. 35 cycles/min       |
| Torsion stress in °             | ± 180 °/m                |
| No. of torsion cycles           | approx. 2000000 Cycles   |
| Acceleration (C-track)          | max. 10 m/s <sup>2</sup> |
| Travel speed (C-track)          | max. 3 m/s               |

**Environmental conditions**

|                                  |                 |
|----------------------------------|-----------------|
| Temperature range (mobile)       | - 25 ...+ 80 °C |
| Temperature range (fixed)        | - 25 ...+ 80 °C |
| Cable: Temperature range (fixed) | - 40 ...+ 80 °C |

**Environmental conditions**

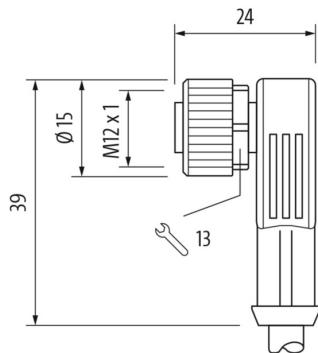
|                                   |   |
|-----------------------------------|---|
| Dragchain capable                 | Yes   |
| Head A: Chemical resistance       | No  |
| Head A: Flame resistance          | HB (UL 94)  |
| Head A: Oil resistance            | ASTM 1 oil, mineral oils, limited to hydraulic oils |
| Head A: Acid and alkali resistant | No  |
| Head A: Pollution degree          | 3   |
| Cable: Chemical resistance        | Good (DIN EN 60811-404)                             |
| Cable: Flame resistance           | Conform UL 1581 §1090 (H), CSA FT2, IEC 60332-2-2   |
| Cable: Oil resistance             | Good (DIN EN 60811-404)                             |
| Cable: Silicone-free              | Yes   |

**Commercial data**

|        |          |
|--------|----------|
| Eclass | 27060311 |
|--------|----------|

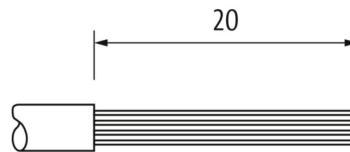
**Side A**

**Technical drawing**

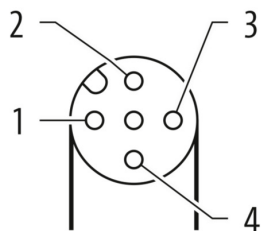


**Side B**

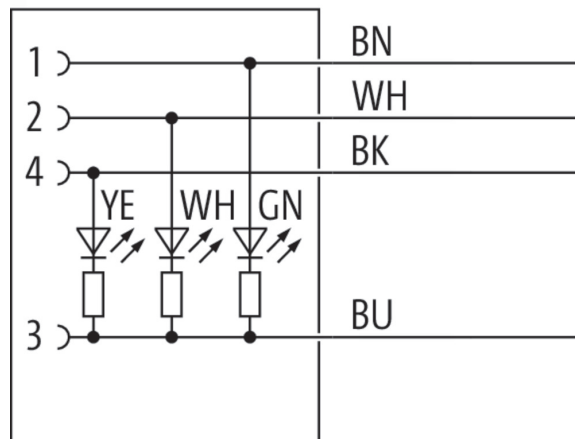
**Technical drawing**



**Coding**



**Connection diagram**



**Dimension drawing**

