

**Overview**

- M12, female, A-coded, 4-poles; PUR, 200 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
- Halogen free



**Technical data**

**Side A**

|                              |   |
|------------------------------|---|
| Head A: Connection           | M12                                       |
| Head A: Angle cable outlet   | 0°  |
| Head A: Gender               | Female                                    |
| Head A: Coding               | A   |
| Head A: No. of poles         | 4   |
| Head A: LED                  | No  |
| Head A: Width across flats   | AF13                                      |
| Head A: Tightening torque    | 0.6 Nm                                    |
| Head A: Knurled nut material | Zinc-pressure die casting, surface Ni-ial |
| Head A: Body color           | Black                                     |
| 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              | 200 cm               |
| Length tolerance          | + 10 cm              |
| Stripping length          | 20 mm                |
| Shielded                  | No                   |
| Conductor structure       | 42 × 0.1 mm          |
| AWG                       | 22                   |
| External sheath: Material | PUR                  |
| External sheath: Color    | Black                |
| Cable diameter            | 4.5 mm ± 5%          |
| Wire cross section        | 0.34 mm <sup>2</sup> |

**Cable**

|                                    |                 |
|------------------------------------|-----------------|
| External sheath: Shore hardness    | 90 ± 5 A        |
| Cable: Temperature range (mobile)  | - 25 ...+ 80 °C |
| Cable: Temperature range (fixed)   | - 40 ...+ 80 °C |
| Operating voltage (only UL listed) | 30 V AC/DC      |
| Shielded                           | No              |
| Bending radius (fixed)             | 22.5 mm         |
| Number of wires                    | 4               |

**Cable**

|                                 |                          |
|---------------------------------|--------------------------|
| Number and diameter of wires    | 4x0.34                   |
| Length tolerance                | + 10 cm                  |
| Cable length                    | 200 cm                   |
| Acceleration (C-track)          | max. 10 m/s <sup>2</sup> |
| AWG                             | 22                       |
| Bending radius (fixed)          | min. 5 × outer diameter  |
| Torsion speed                   | max. 35 cycles/min       |
| Bending radius (mobile)         | min. 10 × outer diameter |
| Cable type                      | 3                        |
| Cable weight                    | approx. 36.3 g/m         |
| Conductor structure             | 42 × 0.1 mm              |
| Cable diameter                  | 4.5 mm ± 5%              |
| Conductor: Material             | Copper, bare             |
| External sheath: Material       | PUR                      |
| Insulation: Material            | PP                       |
| No. of bending cycles (C-track) | approx. 1000000 Cycles   |
| Nominal voltage                 | 300 V                    |
| No. of torsion cycles           | approx. 200000 Cycles    |
| Paired stranding                | No                       |
| Single wire diameter            | 0.1 mm                   |
| Cable: Test voltage             | 2.5 kV                   |
| Torsion stress in °             | ± 180 °/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 ± 5%             |
| External sheath: Color          | Black                    |

**Electrical data**

|                                    |                  |
|------------------------------------|------------------|
| Operating voltage                  | max. 250 V AC/DC |
| Operating voltage (only UL listed) | 30 V AC/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**

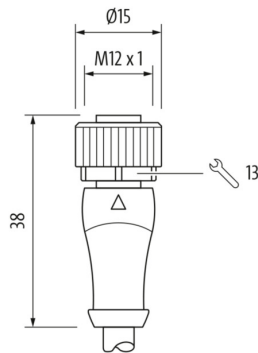
|                                   |   |
|-----------------------------------|---|
| Dragchain capable                 | Yes   |
| Head A: Chemical resistance       | No  |
| Head A: Flame resistance          | HB (UL 94)  |
| Head A: Oil resistance            | ASTM 1 oil, mineral oils, limited to 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**

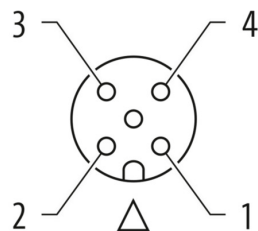


**Side B**

**Technical drawing**



**Coding**



**Connection diagram**



**Dimension drawing**

