

## Overview

- M12, male, A-coded; 3-poles; TPE-S, 2000 cm, shielded, free cable end
- Dragchain capable; suitable for robotics  $\pm 180^\circ/\text{m}$ ; suitable for food & beverage
- Head A: IP65, IP68, IP69K
- ECOLAB tested
- Halogen free



## Technical data

### Side A

|                              |                       |
|------------------------------|-----------------------|
| Head A: Connection           | M12                   |
| Head A: Angle cable outlet   | 0°                    |
| Head A: Gender               | Male                  |
| Head A: Coding               | A                     |
| Head A: No. of poles         | 3                     |
| Head A: LED                  | No                    |
| Head A: Width across flats   | AF14                  |
| Head A: Tightening torque    | 0.6 Nm                |
| Head A: Knurled nut material | Stainless steel (V4A) |
| Head A: Body color           | Blue                  |
| Labeling sleeve side A       | No                    |

### Side B

|                        |                  |
|------------------------|------------------|
| Head B: Connection     | Open-ended wires |
| Labeling sleeve side B | No               |

### Cables

|                           |                      |
|---------------------------|----------------------|
| Cable length              | 2000 cm              |
| Length tolerance          | $\pm 30$ cm          |
| Stripping length          | 20 mm                |
| Shielded                  | Yes                  |
| Conductor structure       | 42 $\times$ 0.1 mm   |
| AWG                       | 22                   |
| External sheath: Material | TPE-S                |
| External sheath: Color    | Blue                 |
| Cable diameter            | 5.2 mm $\pm$ 5%      |
| Wire cross section        | 0.34 mm <sup>2</sup> |

### Cable

|                                    |                  |
|------------------------------------|------------------|
| Cable: Temperature range (mobile)  | - 25 ...+ 105 °C |
| Cable: Temperature range (fixed)   | - 40 ...+ 105 °C |
| Operating voltage (only UL listed) | 30 V AC/DC       |
| Shielded                           | Yes              |
| Shielding: Covering                | approx. 85 %     |
| Bending radius (fixed)             | 26 mm            |
| Number of wires                    | 3                |
| Number and diameter of wires       | 3x0.34           |

### Cable

|                                 |                                 |
|---------------------------------|---------------------------------|
| Length tolerance                | $\pm 30$ cm                     |
| Cable length                    | 2000 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 weight                    | approx. 37.4 g/m                |
| Conductor structure             | 42 $\times$ 0.1 mm              |
| Cable diameter                  | 5.2 mm $\pm$ 5%                 |
| Conductor: Material             | Copper, bare                    |
| External sheath: Material       | TPE-S                           |
| Insulation: Material            | PP                              |
| Shielding: Material             | Copper, tinned                  |
| No. of bending cycles (C-track) | approx. 4000000 Cycles          |
| Nominal voltage                 | 300 V AC                        |
| No. of torsion cycles           | approx. 2000000 Cycles          |
| Paired stranding                | No                              |
| Single wire diameter            | 0.1 mm                          |
| Cable: Test voltage             | 3 kV                            |
| Torsion stress in °             | $\pm 180^\circ/\text{m}$        |
| Total stranding                 | 3 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   | 1.27 mm $\pm$ 5%                |
| External sheath: Color          | Blue                            |

### Electrical data

|                                    |                 |
|------------------------------------|-----------------|
| Operating voltage                  | max. 60 V AC/DC |
| Operating voltage (only UL listed) | 30 V AC/DC      |
| Nominal voltage                    | 300 V AC        |
| Contact resistance                 | max. 30 mOhm    |
| Operating current per contact      | max. 4 A        |

## Technical data

### Mechanical data

|                                 |                          |
|---------------------------------|--------------------------|
| Head A: Degree of protection    | IP65, IP68, IP69K        |
| Bending radius (mobile)         | min. 10 × outer diameter |
| Bending radius (fixed)          | min. 5 × outer diameter  |
| No. of bending cycles (C-track) | approx. 4000000 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 ...+ 105 °C |
| Temperature range (fixed)        | - 40 ...+ 105 °C |
| Cable: Temperature range (fixed) | - 40 ...+ 105 °C |

### Environmental conditions

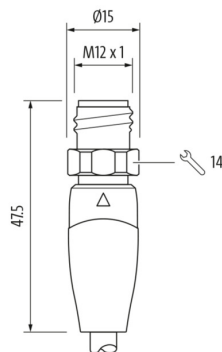
|                                   |                                                                                                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Dragchain capable                 | Yes                                                                                                                                           |
| Head A: Chemical resistance       | Chemical resistance tested according to ECOLAB. If other media are used, the material resistance must be tested according to the application. |
| 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 | ECOLAB tested                                                                                                                                 |
| Head A: Pollution degree          | 3                                                                                                                                             |
| Cable: Chemical resistance        | ECOLAB material resistance test passed                                                                                                        |
| Cable: Acid and alkali resistant  | Good (FDA 21 178.3620, 178.3297, 177.1520, EU 10/2011)                                                                                        |
| Cable: Silicone-free              | Yes                                                                                                                                           |

### Commercial data

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

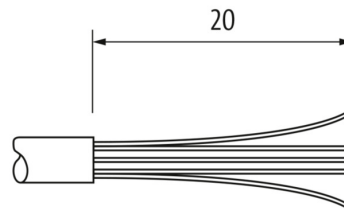
## Side A

### Technical drawing

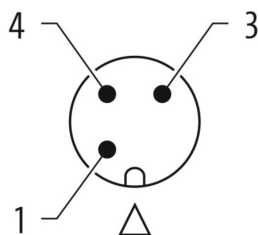


## Side B

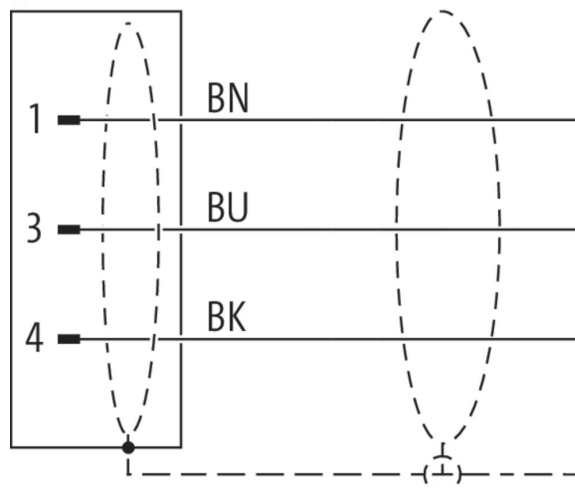
### Technical drawing



## Coding



## Connection diagram



**Dimension drawing**

