

## Overview

- M12, male, A-coded, 3-poles; PUR, 2000 cm; M8, female, A-coded, 3-poles
- Dragchain capable; suitable for robotics  $\pm 180^\circ/\text{m}$
- Head A: IP65, IP66K, IP67; Head B: IP65, IP66K, IP67
- Cable: good resistance against chemicals, flames, oils



## 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   | SW13                                  |
| Head A: Tightening torque    | 0.6 Nm                                |
| Head A: Knurled nut material | Zinc-pressure die casting, surface Ni |
| Head A: Body color           | Black                                 |
| Labeling sleeve side A       | Yes                                   |

### Side B

|                              |                                       |
|------------------------------|---------------------------------------|
| Head B: Connection           | M8                                    |
| Head B: Angle cable outlet   | 0°                                    |
| Head B: Gender               | Female                                |
| Head B: Coding               | A                                     |
| Head B: No. of poles         | 3                                     |
| Head B: LED                  | Yes                                   |
| Head B: LED switching status | PNP                                   |
| Head B: Width across flats   | SW9                                   |
| Head B: Tightening torque    | 0.4 Nm                                |
| Head B: Knurled nut material | Zinc-pressure die casting, surface Ni |
| Head B: Body color           | Transparent                           |
| Labeling sleeve side B       | Yes                                   |

### Cables

|                           |                          |
|---------------------------|--------------------------|
| Cable length              | 2000 cm                  |
| Length tolerance          | $\pm 30$ cm              |
| Shielded                  | No                       |
| Conductor structure       | $32 \times 0.1$ mm       |
| AWG                       | 24                       |
| External sheath: Material | PUR                      |
| External sheath: Color    | Black                    |
| Cable diameter            | $4.1 \text{ mm} \pm 5\%$ |
| Wire cross section        | $0.25 \text{ mm}^2$      |

### Electrical data

|                   |                    |
|-------------------|--------------------|
| Operating voltage | 24 V DC $\pm 25\%$ |
| Nominal voltage   | 300 V              |

### Electrical data

|                               |              |
|-------------------------------|--------------|
| Contact resistance            | max. 30 mOhm |
| Operating current per contact | max. 4 A     |

### Mechanical data

|                                 |                                 |
|---------------------------------|---------------------------------|
| Head A: Degree of protection    | IP65, IP66K, IP67               |
| Head B: Degree of protection    | IP65, IP66K, IP67               |
| Bending radius (mobile)         | min. $10 \times$ outer diameter |
| Bending radius (fixed)          | min. $5 \times$ outer diameter  |
| No. of bending cycles (C-track) | approx. 1000000 Cycles          |
| Torsion speed                   | max. 35 cycles/min              |
| Torsion stress in °             | $\pm 180^\circ/\text{m}$        |
| No. of torsion cycles           | approx. 2000000 Cycles          |
| Acceleration (C-track)          | max. $10 \text{ m/s}^2$         |
| 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                                    |
| 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   |
| Head B: Chemical resistance       | No  |
| Head B: Flame resistance          | HB (UL 94)  |
| Head B: Oil resistance            | ASTM 1 oil, mineral oils, limited to hydraulic oils |
| Head B: Acid and alkali resistant | No  |
| Head B: Pollution degree          | 3   |
| Cable: Chemical resistance        | Good (DIN EN 60811-404)                             |

## Technical data

### Environmental conditions

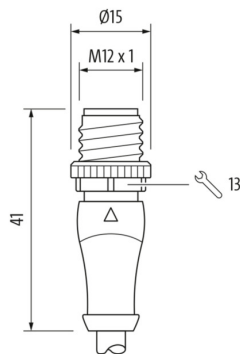
|                         |  |
|-------------------------|--|
| Cable: Flame resistance | Conform UL 1581 §1090 (H); CSA FT2;<br>IEC 60332-2-2 |
| Cable: Oil resistance   | Good (DIN EN 60811-404)                              |

### Environmental conditions

|                      |     |
|----------------------|-----|
| Cable: Silicone-free | Yes |
|----------------------|-----|

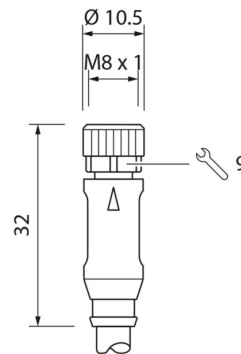
## Side A

### Technical drawing

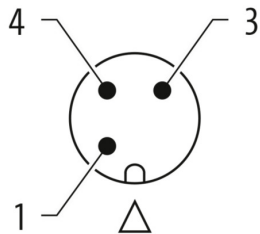


## Side B

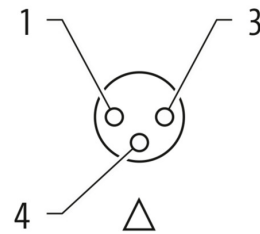
### Technical drawing



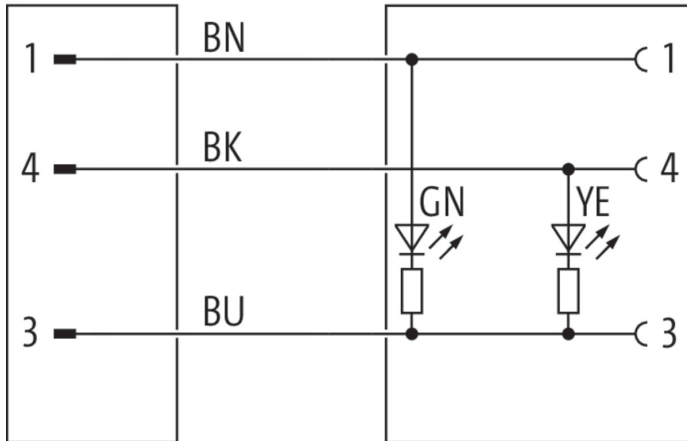
## Coding



## Coding



Connection diagram



Dimension drawing

