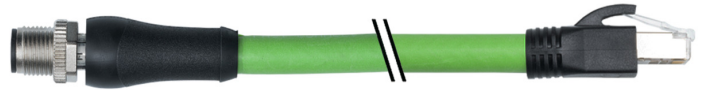


### Overview

- M12, male, X-coded, 8-poles; PUR, 1500 cm, shielded; RJ45, male, X-coded, 8-poles
- Dragchain capable; suitable for robotics  $\pm 180^\circ/\text{m}$ , CAT6A, 10Gbit/s
- Head A: IP66K, IP67; Head B: IP20
- Cable: good resistance against flames, oils
- Halogen free



### Technical data

| Side A                       |                                       | Side B                             |                       |
|------------------------------|---------------------------------------|------------------------------------|-----------------------|
| Head A: Connection           | M12                                   | Head B: Contact layout pin 3       | GNWH                  |
| Head A: Angle cable outlet   | 0°                                    | Head B: Contact layout pin 4       | BU                    |
| Head A: Gender               | Male                                  | Head B: Contact layout pin 5       | BUWH                  |
| Head A: Coding               | X                                     | Head B: Contact layout pin 6       | GN                    |
| Head A: No. of poles         | 8                                     | Head B: Contact layout pin 7       | BNWH                  |
| Head A: LED                  | No                                    | Head B: Contact layout pin 8       | BN                    |
| Head A: Width across flats   | AF13                                  | <b>Cables</b>                      |                       |
| Head A: Tightening torque    | 0.6 Nm                                | Cable length                       | 1500 cm               |
| Head A: Knurled nut material | Zinc-pressure die casting, surface Ni | Length tolerance                   | $\pm 22.5$ cm         |
| Head A: Body color           | Black                                 | Shielded                           | Yes                   |
| Labeling sleeve side A       | Yes                                   | Conductor structure                | 7 x 0.203 mm          |
| Head A: Contact layout pin 1 | OGWH                                  | AWG                                | 24                    |
| Head A: Contact layout pin 2 | OG                                    | External sheath: Material          | PUR                   |
| Head A: Contact layout pin 3 | GNWH                                  | External sheath: Color             | Green                 |
| Head A: Contact layout pin 4 | GN                                    | Cable diameter                     | 8.9 mm $\pm 5\%$      |
| Head A: Contact layout pin 5 | BNWH                                  | Wire cross section                 | 0.227 mm <sup>2</sup> |
| Head A: Contact layout pin 6 | BN                                    | Cable: Halogen free                | Yes                   |
| Head A: Contact layout pin 7 | BUWH                                  | <b>Cable</b>                       |                       |
| Head A: Contact layout pin 8 | BU                                    | Cable: Temperature range (mobile)  | - 30 ...+ 70 °C       |
| <b>Side B</b>                |                                       | Cable: Temperature range (fixed)   | - 40 ...+ 80 °C       |
| Head B: Connection           | RJ45                                  | Operating voltage (only UL listed) | 30 V AC/DC            |
| Head B: Angle cable outlet   | 0°                                    | Shielded                           | Yes                   |
| Head B: Gender               | Male                                  | Shielding: Covering                | approx. 85 %          |
| Head B: No. of poles         | 8                                     | Characteristic impedance           | 100 Ohm $\pm 15\%$    |
| Head B: LED                  | No                                    | Signal delay                       | 5.2 ns/m              |
| Head B: Body color           | Black                                 | Transmission rate                  | 10 Gbit/s             |
| Labeling sleeve side B       | Yes                                   | Bending radius (fixed)             | 71.2 mm               |
| Head B: Contact layout pin 1 | OGWH                                  | Number of wires                    | 8                     |
| Head B: Contact layout pin 2 | OG                                    | Number and diameter of wires       | 8x0.227               |
|                              |                                       | Length tolerance                   | $\pm 22.5$ cm         |
|                              |                                       | Cable length                       | 1500 cm               |

**Technical data**
**Cable**

|                                 |                                                                   |
|---------------------------------|-------------------------------------------------------------------|
| Acceleration (C-track)          | max. 4 m/s <sup>2</sup>                                           |
| AWG                             | 24                                                                |
| Bending radius (fixed)          | min. 8 × outer diameter                                           |
| Bending radius (mobile)         | min. 15 × outer diameter                                          |
| Cable weight                    | approx. 116.6 g/m                                                 |
| Conductor structure             | 7 × 0.203 mm                                                      |
| Cable diameter                  | 8.9 mm ± 5%                                                       |
| Insulation resistance           | min. 5 MOhm x m                                                   |
| Conductor: Material             | Copper, bare                                                      |
| External sheath: Material       | PUR                                                               |
| Insulation: Material            | PE                                                                |
| Shielding: Material             | Copper, tinned; PET aluminium coated                              |
| No. of bending cycles (C-track) | approx. 2000000 Cycles                                            |
| Nominal voltage                 | 300 V                                                             |
| No. of torsion cycles           | approx. 1000000 Cycles                                            |
| Paired stranding                | Yes                                                               |
| Single wire diameter            | 0.203 mm                                                          |
| Cable: Test voltage             | 2 kV AC core-core ; 2 kV AC core-shield                           |
| Torsion stress in °             | ± 180 °/m                                                         |
| Total stranding                 | 4 x 2 wires strand to pair, pairs strand around central separator |
| Travel speed (C-track)          | max. 4 m/s                                                        |
| Traversing path (horizontal)    | max. 5 m                                                          |
| Wire cross section              | 0.227 mm <sup>2</sup>                                             |
| Wire processing                 | No                                                                |
| Wire diameter incl. isolation   | 1.05 mm ± 5%                                                      |
| External sheath: Color          | Green                                                             |
| Protocols                       | CAT6A                                                             |

**Electrical data**

|                                    |              |
|------------------------------------|--------------|
| Operating voltage                  | max. 60 V DC |
| Operating voltage (only UL listed) | 30 V AC/DC   |
| Nominal voltage                    | 300 V        |
| Contact resistance                 | max. 30 mOhm |
| Operating current per contact      | max. 0.5 A   |

**Mechanical data**

|                                 |                          |
|---------------------------------|--------------------------|
| Head A: Degree of protection    | IP66K, IP67              |
| Head B: Degree of protection    | IP20                     |
| Bending radius (mobile)         | min. 15 × outer diameter |
| Bending radius (fixed)          | min. 8 × outer diameter  |
| No. of bending cycles (C-track) | approx. 2000000 Cycles   |
| Torsion stress in °             | ± 180 °/m                |
| No. of torsion cycles           | approx. 1000000 Cycles   |
| Acceleration (C-track)          | max. 4 m/s <sup>2</sup>  |
| Travel speed (C-track)          | max. 4 m/s               |

**Environmental conditions**

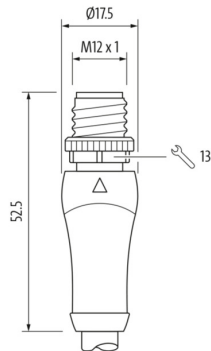
|                                   |                                                        |
|-----------------------------------|--------------------------------------------------------|
| Temperature range (mobile)        | - 25 ...+ 70 °C                                        |
| Temperature range (fixed)         | - 25 ...+ 85 °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: Pollution degree          | 3                                                      |
| Cable: Flame resistance           | Conform UL 1581 §1090, §1100 (FT2), IEC 60332-1-2 Std. |
| Cable: Oil resistance             | Conform IEC 60811-2-1, ASTM IRM 901 Std.               |
| Cable: Silicone-free              | Yes                                                    |
| Cable: UV resistance              | Yes                                                    |

**Commercial data**

|        |          |
|--------|----------|
| Eclass | 27061801 |
|--------|----------|

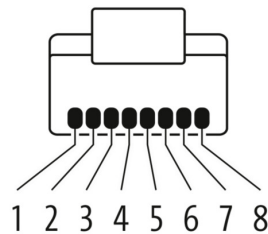
## Side A

### Technical drawing

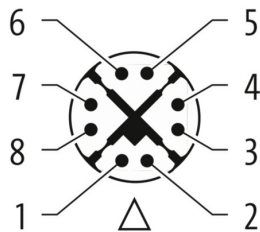


## Side B

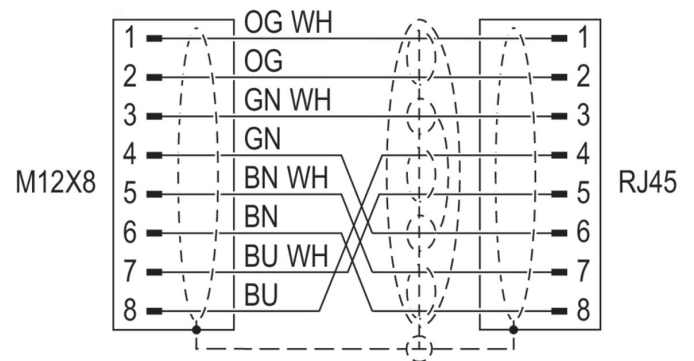
### Coding



## Coding



## Connection diagram



## Dimension drawing

## Side B

### Technical drawing

