

**M12 male 90° D-cod. with cable shielded**

PUR 1x4xAWG22 shielded gn UL/CSA+drag ch. 5m

Ethernet CAT5

Male 90°

M12, 4-pole

D-coded

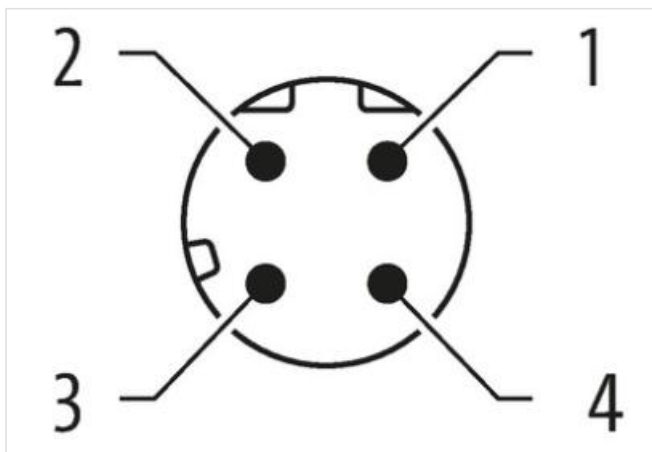
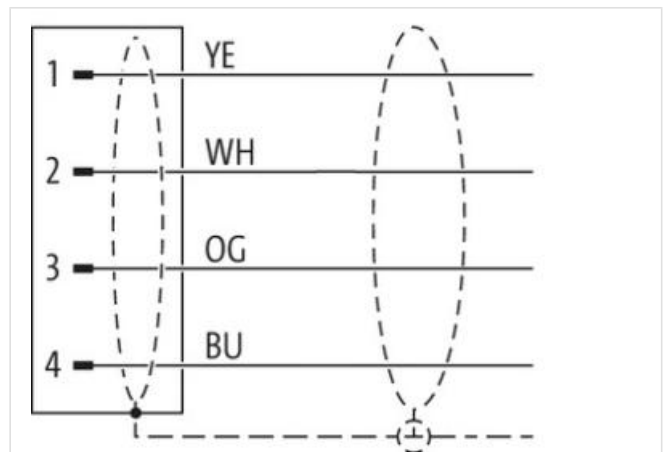
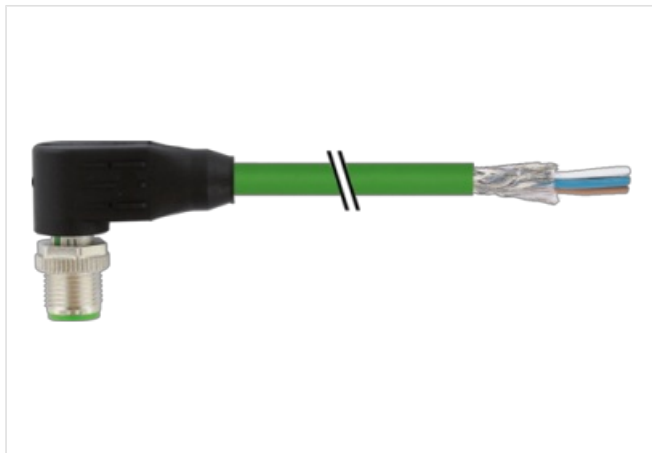
shielded

Transmission properties with channel transmission up to 100 m

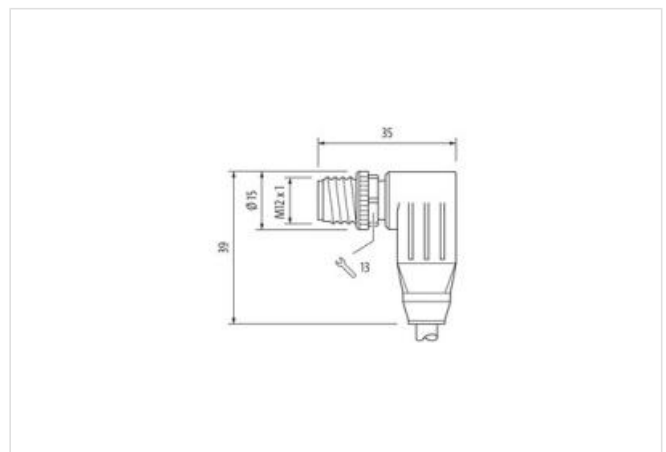
Further cable lengths on request.

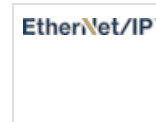
Plastic housings with good resistance against chemicals and oils.

The resistance to aggressive media should be individually tested for your application. Further details on request.

[Link to Product](#)**Illustration**

Product may differ from Image





|                                     |                   |
|-------------------------------------|-------------------|
| Cable length                        | 5 m               |
| <b>Side 1</b>                       |                   |
| Tightening torque                   | 0,6 Nm            |
| Mounting method                     | inserted, screwed |
| Family construction form            | M12               |
| Thread                              | M12 x 1           |
| Coding                              | D                 |
| Material                            | PUR               |
| Width across flats                  | SW13              |
| Degree of protection (EN IEC 60529) | IP65, IP66K, IP67 |

|                           |               |
|---------------------------|---------------|
| <b>Side 2</b>             |               |
| Stripping length (jacket) | 20 mm         |
| <b>Commercial data</b>    |               |
| ECLASS-6.0                | 27061801      |
| ECLASS-7.0                | 27061801      |
| ECLASS-8.0                | 27061801      |
| ECLASS-9.0                | 27061801      |
| ECLASS-10.1               | 27060307      |
| ECLASS-11.1               | 27060307      |
| ECLASS-12.0               | 27060307      |
| ETIM-5.0                  | EC002599      |
| customs tariff number     | 85444290      |
| GTIN                      | 4048879863315 |
| Packaging unit            | 1             |

|                                    |                                                  |
|------------------------------------|--------------------------------------------------|
| <b>Electrical data   Supply</b>    |                                                  |
| Operating voltage DC max.          | 60 V                                             |
| Current operating per contact max. | 1,5 A                                            |
| <b>Industrial communication</b>    |                                                  |
| Transfer parameters                | CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1) |
| Data transmission rate max.        | 100 MBit/s                                       |

|                                                          |             |
|----------------------------------------------------------|-------------|
| <b>Industrial communication   Ethernet functionality</b> |             |
| duplex                                                   | Full duplex |

|                                  |         |
|----------------------------------|---------|
| <b>Installation   Connection</b> |         |
| Stripping length (jacket)        | 20 mm   |
| Mounting set                     | M12 x 1 |

|                                        |                   |
|----------------------------------------|-------------------|
| <b>Device protection   Electrical</b>  |                   |
| Additional condition protection degree | inserted, screwed |
| Pollution Degree                       | 3                 |
| Rated surge voltage                    | 1,5 kV            |
| Material group (IEC 60664-1)           | I                 |

#### Mechanical data

Contour for corrugated hose without

| Mechanical data   Material data          |                                                                                                                                                       |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coating locking                          | Nickeled                                                                                                                                              |
| Coating of fitting                       | nickel plated                                                                                                                                         |
| Locking material                         | Zinc die-casting                                                                                                                                      |
| Material screw connection                | Zinc die-casting                                                                                                                                      |
| Mechanical data   Mounting data          |                                                                                                                                                       |
| Mounting method                          | inserted, screwed, Shaking protection                                                                                                                 |
| Environmental characteristics   Climatic |                                                                                                                                                       |
| Operating temperature min.               | -25 °C                                                                                                                                                |
| Operating temperature max.               | 85 °C                                                                                                                                                 |
| Additional condition temperature range   | depending on cable quality                                                                                                                            |
| Important installation notes             |                                                                                                                                                       |
| Note on strain relief                    | Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.                                                   |
| Note on bending radius                   | <b>Attention:</b> Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces. |
| Conformity                               |                                                                                                                                                       |
| Product standard                         | DIN EN 61076-2-101 (M12)                                                                                                                              |
| Installation   Cable                     |                                                                                                                                                       |
| wire arrangement                         | white, yellow, blue, orange                                                                                                                           |
| Cable identification                     | 659                                                                                                                                                   |
| Jacket Color                             | green                                                                                                                                                 |
| Type of Certificate                      | cURus                                                                                                                                                 |
| Amount stranding                         | 1                                                                                                                                                     |
| Stranding                                | 4 wires around Core filler twisted                                                                                                                    |
| Cable shielding (type)                   | copper braid, tinned                                                                                                                                  |
| Cable shielding (coverage)               | 85 %                                                                                                                                                  |
| Banding                                  | Fleece, Foil                                                                                                                                          |
| Filler                                   | yes                                                                                                                                                   |
| wire arrangement                         | white, yellow, blue, orange                                                                                                                           |
| Cable weight                             | 89,1 g/m                                                                                                                                              |
| Material jacket                          | PUR                                                                                                                                                   |
| Shore hardness jacket                    | 90 ± Shore A                                                                                                                                          |
| Freedom from ingredients (jacket)        | lead-free, CFC-free, halogen-free                                                                                                                     |
| Outer-diameter (jacket)                  | 7,4 mm                                                                                                                                                |
| Tolerance outer diameter (sheath)        | ± 5 %                                                                                                                                                 |
| Material inner jacket                    | TPE-V                                                                                                                                                 |
| Color (inner jacket)                     | white                                                                                                                                                 |
| Material wire insulation                 | PE                                                                                                                                                    |
| Amount wires                             | 4                                                                                                                                                     |
| Outer diameter insulation                | 1,4 mm                                                                                                                                                |
| Outer diameter tolerance core insulation | ± 5 %                                                                                                                                                 |
| Shore hardness wire insulation           | 65 Shore D                                                                                                                                            |
| Ingredient freeness wire insulation      | lead-free, CFC-free, halogen-free                                                                                                                     |
| Amount strands (wire)                    | 7                                                                                                                                                     |
| Diameter of single wires                 | 22 AWG                                                                                                                                                |
| Conductor crosssection (wire)            | 22 AWG                                                                                                                                                |
| Material conductor wire                  | Stranded copper wire, bare                                                                                                                            |
| Nominal voltage AC max.                  | 60 V                                                                                                                                                  |
| Current load capacity (standard)         | to DIN VDE 0298-4                                                                                                                                     |
| Current load capacity min. wire          | 4,8 A                                                                                                                                                 |

|                                                   |                                                      |
|---------------------------------------------------|------------------------------------------------------|
| Characteristic impedance                          | 100 $\Omega \pm 15 \%$                               |
| Electrical resistance line constant wire          | 55 $\Omega/\text{km}$ @ 20 °C                        |
| AC withstand voltage (wire - wire)                | 2 kV @ 60 s                                          |
| Electrical capacity line constant (wire - wire)   | 50000 pF/km                                          |
| Power frequency withstand voltage (wire - jacket) | 2 kV @ 60 s                                          |
| AC withstand voltage (wire - shield)              | 2 kV @ 60 s                                          |
| Isolation resistance                              | 5000 M $\Omega \times \text{km}$                     |
| Min. operating temperature (static)               | -40 °C                                               |
| Max. operating temperature (fixed)                | 80 °C                                                |
| Operating temperature min. (dynamic)              | -30 °C                                               |
| Operating temperature max. (dynamic)              | 70 °C                                                |
| Flame resistance                                  | UL 1581 § 1100 FT2   IEC 60332-2-2   UL 1581 § 1090  |
| chemical resistance                               | Good, application-related testing                    |
| Gasoline resistance                               | Good, application-related testing                    |
| Oil resistance                                    | DIN EN 60811-404   Good, application-related testing |
| Bending radius (fixed)                            | 5 x Outer diameter                                   |
| Bending radius (dynamic)                          | 12 x Outer diameter                                  |
| No. of bending cycles (C-track)                   | 2 Mio.                                               |
| Traversing distance (C-track)                     | 5 m                                                  |
| Travel speed (C-track)                            | 3,3 m/s                                              |