

**M12 male 0° / M12 female 90° A-cod. shielded**

PUR 5x0.34 shielded bk UL/CSA+drag ch. 12m

Male straight – female 90°

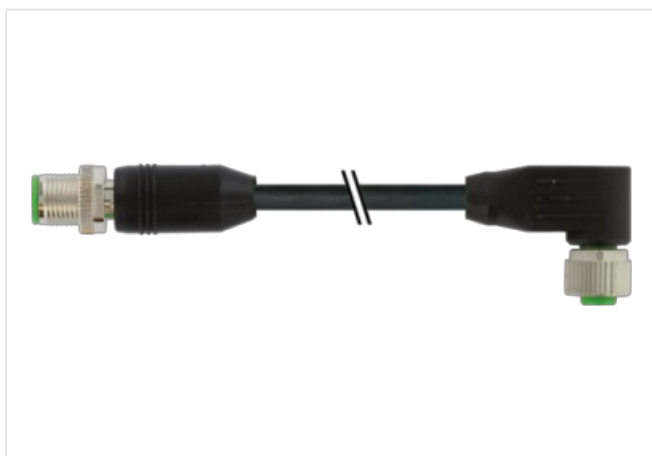
M12 – M12, 5-pole

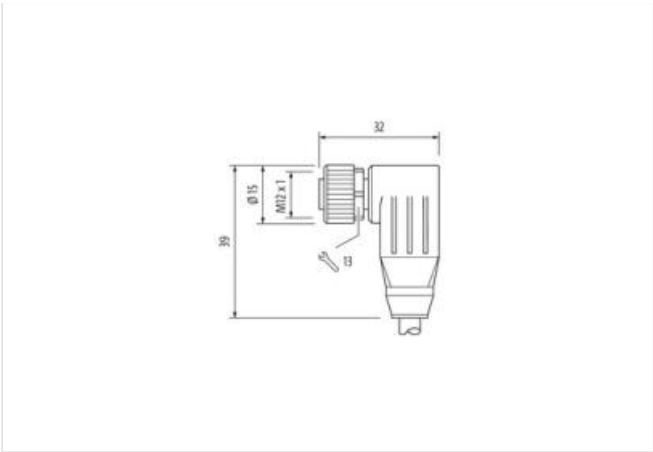
shielded

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.

Further cable lengths on request.

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



Product may differ from Image



Cable length 12 m

Side 1

|                                     |                   |
|-------------------------------------|-------------------|
| Tightening torque                   | 0,6 Nm            |
| Mounting method                     | inserted, screwed |
| Family construction form            | M12               |
| Thread                              | M12 x 1           |
| Coding                              | A                 |
| Material                            | PUR               |
| Width across flats                  | SW13              |
| Degree of protection (EN IEC 60529) | IP65, IP67        |

Side 2

|                          |                   |
|--------------------------|-------------------|
| Tightening torque        | 0,6 Nm            |
| Mounting method          | inserted, screwed |
| Family construction form | M12               |
| Thread                   | M12 x 1           |
| Coding                   | A                 |
| Material                 | PUR               |
| Width across flats       | SW13              |

Commercial data

|                       |               |
|-----------------------|---------------|
| ECLASS-6.0            | 27279218      |
| ECLASS-7.0            | 27279218      |
| ECLASS-8.0            | 27279218      |
| ECLASS-9.0            | 27060311      |
| ECLASS-10.1           | 27060311      |
| ECLASS-11.1           | 27060311      |
| ECLASS-12.0           | 27060311      |
| ETIM-5.0              | EC001855      |
| customs tariff number | 85444290      |
| GTIN                  | 4048879515009 |
| Packaging unit        | 1             |

Electrical data | Supply

Operating voltage AC max. 60 V

|                                    |      |
|------------------------------------|------|
| Operating voltage DC max.          | 60 V |
| Operating voltage AC (UL-listed)   | 30 V |
| Operating voltage DC (UL-listed)   | 30 V |
| Current operating per contact max. | 4 A  |

#### Installation | Connection

|              |         |
|--------------|---------|
| Mounting set | M12 x 1 |
|--------------|---------|

#### Device protection | Electrical

|  |                   |
|--|-------------------|
| 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    |
| Material gasket           | FKM              |
| 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. |

#### Installation | Cable

|  |  |
|--|--|
| Cable identification                     | 643  |
| Cable Type                               | 3  |
| Jacket Color                             | black  |
| Type of Certificate                      | cURus  |
| Amount stranding                         | 1  |
| Stranding                                | 5 wires around Core filler twisted                             |
| Cable shielding (type)                   | copper braid, tinned   |
| Cable shielding (coverage)               | 80 %   |
| Banding                                  | Fleece, Foil   |
| Filler                                   | yes  |
| wire arrangement                         | brown, black, blue, white, gray                                |
| Cable weight                             | 57,2 g/m   |
| Material jacket                          | PUR  |
| Shore hardness jacket                    | 90 ± 5 Shore A   |
| Freedom from ingredients (jacket)        | lead-free, cadmium-free, CFC-free, halogen-free, silicone-free |
| Outer-diameter (jacket)                  | 5,6 mm   |
| Tolerance outer diameter (sheath)        | ± 5 %  |
| Material wire insulation                 | PP   |
| Amount wires                             | 5  |
| Outer diameter insulation                | 1,25 mm  |
| Outer diameter tolerance core insulation | ± 5 %  |

|   |  |
|---|--|
| Shore hardness wire insulation                    | 70 ± 5 Shore D   |
| Ingredient freeness wire insulation               | lead-free, cadmium-free, CFC-free, halogen-free, silicone-free |
| Amount strands (wire)                             | 42   |
| Diameter of single wires                          | 0,1 mm   |
| Conductor crosssection (wire)                     | 0,34 mm²   |
| Material conductor wire                           | Stranded copper wire, bare                                     |
| Conductor type (wire)                             | strand class 6   |
| Traversing distance (C-track)                     | 5 m @ 25 °C   horizontal                                       |
| Nominal voltage AC max.                           | 300 V  |
| Current load capacity (standard)                  | to DIN VDE 0298-4  |
| Current load capacity min. wire                   | 4,5 A  |
| Electrical resistance line constant wire          | 57 Ω/km @ 20 °C  |
| AC withstand voltage (wire - wire)                | 2 kV @ 60 s  |
| Power frequency withstand voltage (wire - jacket) | 2 kV @ 60 s  |
| AC withstand voltage (wire - shield)              | 2 kV @ 60 s  |
| Min. operating temperature (static)               | -40 °C   |
| Max. operating temperature (fixed)                | 80 °C / 90 °C @ 10000 h Operation                              |
| Operating temperature min. (dynamic)              | -25 °C   |
| Operating temperature max. (dynamic)              | 80 °C / 90 °C @ 10000 h Operation                              |
| UV resistance                                     | DIN EN ISO 4892-2 A  |
| 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)                          | 10 x Outer diameter  |
| Travel speed (C-track)                            | 5 Mio. @ 25 °C   |
| No. of torsion cycles                             | 2 Mio.   |
| Torsion stress                                    | ± 30 °/m   |
| Torsion speed                                     | 35 cycles/min  |