

**M12 MALE 90° / M12 FEMALE 90° LED**

PUR 4X0.34 black UL/CSA, ROBOT, drag ch 0.3m

Male 90° – female 90°

M12 – M12, 4-pole

3× LED (PNP), (NPN) on request

Art-No. 7005 - M12 Lite - (plastic hexagonal screw) 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.

Further cable lengths on request.

**Illustration**

Product may differ from Image

**Approvals**

\* only for products with UL/CSA approved cable

**Form**

Form 40421

**Cables**

|                                    |                                                   |
|------------------------------------|---------------------------------------------------|
| No./diameter of wires              | 4 × 0.34 mm <sup>2</sup>                          |
| Wire isolation                     | PP (br, wh, bl, bk)                               |
| C-track properties                 | 10 Mio.                                           |
| Material (jacket)                  | PUR (UL/CSA), welding spark                       |
| Outer Ø                            | 4.7 mm ±5%                                        |
| Bend radius (moving)               | 10 × outer Ø                                      |
| Temperature range (fixed)          | -40...+80 °C                                      |
| Temperature range (mobile)         | -25...+80 °C                                      |
| Cable identification               | 654                                               |
| Cable Type                         | 5 (PUR schweißfunkenbeständig)                    |
| Approval (cable)                   | cURus (AWM-Style 20549/10493); CE conform         |
| Cable weight [g/m]                 | 36,30                                             |
| Material (wire)                    | Cu wire, bare                                     |
| Resistor (core)                    | max. 60 Ω/km (20 °C)                              |
| Single wire Ø (core)               | 0.1 mm                                            |
| Construction (core)                | 42 × 0.1 mm (multi-strand wire class 6)           |
| Diameter (core)                    | 4 × 0.34 mm <sup>2</sup>                          |
| AWG                                | similar to AWG 22                                 |
| Material (wire isolation)          | PP                                                |
| Material property (wire isolation) | CFC-, halogen-, cadmium-, silicone- and lead-free |
| Shore hardness (wire isolation)    | 74 ±3 D                                           |

|                                 |                                                                                                                                                                         |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wire-Ø incl. isolation          | 1.25 mm ±5%                                                                                                                                                             |
| Color/numbering of wires        | br, bk, bl, wh                                                                                                                                                          |
| Stranding combination           | 4 wires twisted                                                                                                                                                         |
| Shield                          | no                                                                                                                                                                      |
| Material (jacket)               | PUR                                                                                                                                                                     |
| Material property (jacket)      | CFC-, halogen-, cadmium-, silicone- and lead-free, matt, low-adhesion, machine easy to process, abrasion-resistant, hydrolysis-, microbial- and welding spark resistant |
| Shore hardness (jacket)         | 58 ±3 D                                                                                                                                                                 |
| Outer-Ø (jacket)                | 4.7 mm ±5%                                                                                                                                                              |
| Color (jacket)                  | black                                                                                                                                                                   |
| chemical resistance             | good resistance to oil, gasoline and chemicals (EN 60811-404)                                                                                                           |
| thermal resistance              | flame retardant UL, FT2, IEC 60332-1, IEC 60332-2-2, welding spark resistant                                                                                            |
| Nominal voltage                 | 300 V AC                                                                                                                                                                |
| Test voltage                    | 2500 V AC                                                                                                                                                               |
| Current load capacity           | to DIN VDE 0298-4                                                                                                                                                       |
| Temperature range (fixed)       | -40...+80 °C, (+90 °C at max. 10 000 operating hours)                                                                                                                   |
| Temperature range (mobile)      | -25...+80 °C, (+90 °C at max. 10 000 operating hours)                                                                                                                   |
| Bend radius (fixed)             | 5× outer Ø                                                                                                                                                              |
| Bend radius (moving)            | 10× outer Ø                                                                                                                                                             |
| No. of bending cycles (C-track) | max. 10 Mio. (25 °C)                                                                                                                                                    |
| Traversing distance (C-track)   | max. 5 m (horizontal)                                                                                                                                                   |
| Travel speed (C-track)          | max. 3.3 m/s                                                                                                                                                            |
| Acceleration (C-track)          | max. 5 m/s²                                                                                                                                                             |
| Torsion stress                  | ±360°/m                                                                                                                                                                 |
| No. of torsion cycles           | max. 1 Mio. (25 °C)                                                                                                                                                     |
| Torsion speed                   | 35 cycles/min                                                                                                                                                           |
| Jacket Color                    | black                                                                                                                                                                   |

**Technical Data**

|                                           |                                                                  |
|-------------------------------------------|------------------------------------------------------------------|
| Operating voltage                         | 24 V DC ±25%                                                     |
| Operating voltage (only UL listed)        | max. 30 V DC                                                     |
| Operating current per contact             | max. 4 A                                                         |
| Material group                            | IEC 60664-1, category I                                          |
| Coding                                    | A-coded                                                          |
| Locking of ports                          | Screw thread (M12×1 mm) recommended torque 0.6 Nm, self-securing |
| Compression gland                         | M12 (SW13)                                                       |
| Protection                                | IP66K, IP67 inserted and tightened (EN 60529)                    |
| Locking material                          | Zinc die casting, matte nickel plated                            |
| Material                                  | PUR                                                              |
| suitable for corrugated tube (internal Ø) | 10 mm                                                            |

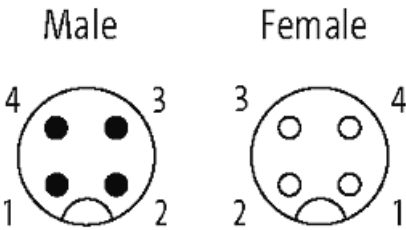
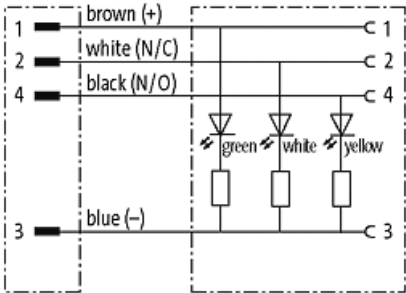
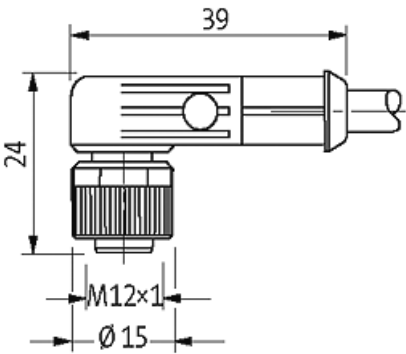
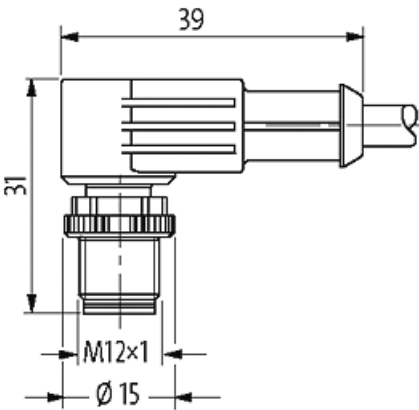
**General data**

|                   |                                          |
|-------------------|------------------------------------------|
| Standards         | DIN EN 61076-2-101 (M12)                 |
| Mounting method   | inserted, tightened                      |
| Pollution Degree  | 3                                        |
| Temperature range | -25...+85 °C, depending on cable quality |

**Commercial data**

|                       |               |
|-----------------------|---------------|
| country of origin     | DE            |
| customs tariff number | 85444290      |
| EAN                   | 4048879453677 |
| eClass                | 27279218      |
| Packaging unit        | 1             |

Sketch



Product may differ from Image