

**M12 female 0° A-cod. with cable**

PUR 3x0.34 ye UL/CSA+drag ch. 5m

Art.No.: 7000-12161-0330500

Weight: 0.163 kg

Country of origin: CZ

Model designation: MSBL0-S033\_5.0

**Advantages of our connectors:**

Our connectors are versatile and specially optimised for industrial environments. All connectors are 100% tested during the manufacturing process to ensure the highest quality and reliability.

The contacts are gold-plated, which ensures optimum conductivity. Thanks to the high degree of protection, the connectors are ideal for demanding industrial environments. They are also vibration-resistant - this is ensured by the union nut with vibration protection.

Our connectors are resistant to oils and cooling lubricants, but resistance to aggressive media should be tested for each specific application. Different cable lengths available [on request](#)

If you are missing technical information? Please feel free to use our [dictionary](#) to find more technical details.

**Product details:**

Female straight

M12, 4-pole

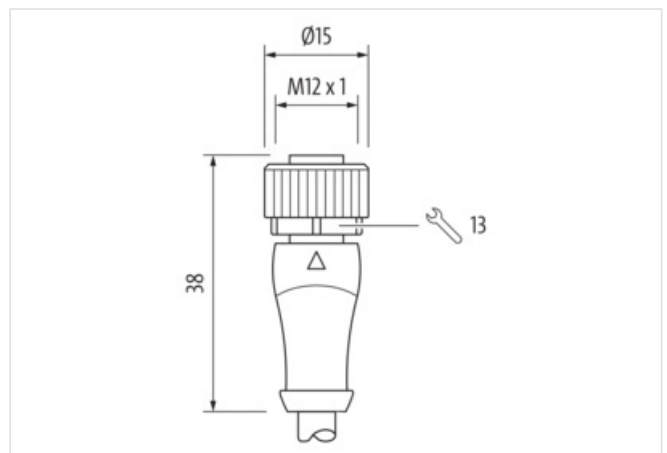
Art-No. 7005 - M12 Lite - (plastic hexagonal screw) on request

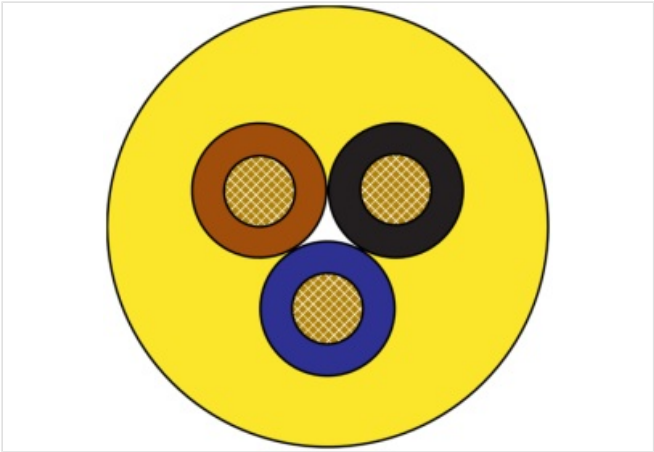
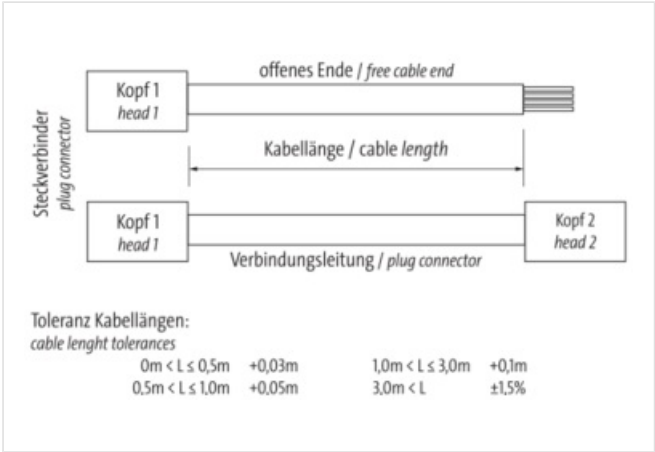
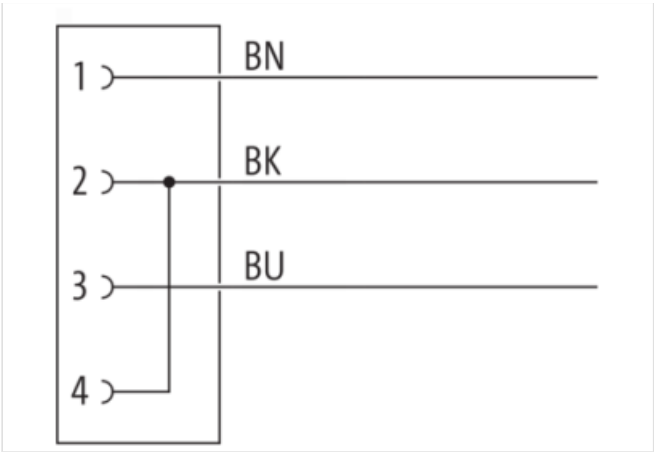
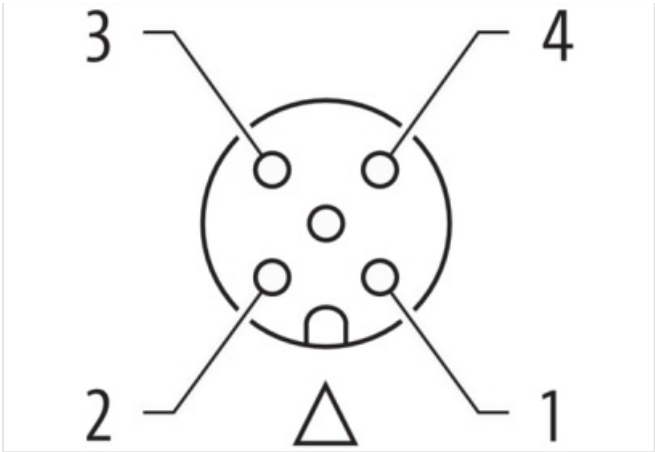
with cable sleeves

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



| Header                                    |                   |
|-------------------------------------------|-------------------|
| Material short text                       | MSBL0-S033_5.0    |
| Cable length                              | 5,00 m            |
| Side 1                                    |                   |
| Family construction form                  | M12               |
| No. of poles                              | 4                 |
| Coding                                    | A                 |
| Gender                                    | female            |
| Mounting method                           | inserted, screwed |
| Threaded hole                             | M12 x 1           |
| Tightening torque                         | 0,6 Nm            |
| Width across flats                        | SW13              |
| Cable outlet                              | straight          |
| suitable for corrugated tube (internal Ø) | 10 mm             |
| Material                                  | PUR               |
| Material contact                          | Copper alloy      |
| Coating contact                           | gold plated       |
| Degree of protection (EN IEC 60529)       | IP67, IP66K, IP65 |
| Side 2                                    |                   |

|                                                 |                                                                                                                     |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Family construction form                        | free cable end                                                                                                      |
| Stripping length (jacket)                       | 20 mm                                                                                                               |
| <b>Commercial data</b>                          |                                                                                                                     |
| URL Webshop                                     | <a href="https://shop.murrelektronik.com/7000-12161-0330500">https://shop.murrelektronik.com/7000-12161-0330500</a> |
| GTIN                                            | 4048879214797                                                                                                       |
| ECLASS-6.0                                      | 27279218                                                                                                            |
| ECLASS-6.1                                      | 27279218                                                                                                            |
| ECLASS-7.0                                      | 27279218                                                                                                            |
| ECLASS-7.1                                      | 27279218                                                                                                            |
| ECLASS-8.0                                      | 27279218                                                                                                            |
| ECLASS-8.1                                      | 27279218                                                                                                            |
| ECLASS-9.0                                      | 27060311                                                                                                            |
| ECLASS-9.1                                      | 27060311                                                                                                            |
| ECLASS-10.0.1                                   | 27060311                                                                                                            |
| ECLASS-10.1                                     | 27060311                                                                                                            |
| ECLASS-11.0                                     | 27060311                                                                                                            |
| ECLASS-11.1                                     | 27060311                                                                                                            |
| ECLASS-12.0                                     | 27060311                                                                                                            |
| ECLASS-13.0                                     | 27060311                                                                                                            |
| ECLASS-14.0                                     | 27060311                                                                                                            |
| ETIM-5.0                                        | EC001855                                                                                                            |
| ETIM-6.0                                        | EC001855                                                                                                            |
| ETIM-7.0                                        | EC001855                                                                                                            |
| ETIM-8.0                                        | EC001855                                                                                                            |
| customs tariff number                           | 85444290                                                                                                            |
| EAN                                             | 4048879214797                                                                                                       |
| Packaging unit                                  | 1                                                                                                                   |
| <b>Electrical data   Supply</b>                 |                                                                                                                     |
| Operating voltage AC max.                       | 250 V                                                                                                               |
| Operating voltage DC max.                       | 250 V                                                                                                               |
| Current operating per contact max.              | 4 A                                                                                                                 |
| <b>Diagnostics</b>                              |                                                                                                                     |
| Status indication LED                           | No                                                                                                                  |
| <b>Installation   Connection</b>                |                                                                                                                     |
| Gender                                          | female                                                                                                              |
| Mounting set                                    | M12 x 1                                                                                                             |
| <b>Device protection   Electrical</b>           |                                                                                                                     |
| Degree of protection (EN IEC 60529)             | IP67, IP66K, IP65                                                                                                   |
| Additional condition protection degree          | inserted, screwed                                                                                                   |
| Pollution Degree                                | 3                                                                                                                   |
| Rated surge voltage                             | 2,5 kV                                                                                                              |
| Material group (IEC 60664-1)                    | I                                                                                                                   |
| <b>Mechanical data   Material data</b>          |                                                                                                                     |
| Material screw connection                       | Zinc die-casting                                                                                                    |
| Coating of fitting                              | nickel plated                                                                                                       |
| Locking material                                | Zinc die-casting                                                                                                    |
| Coating locking                                 | Nickeled                                                                                                            |
| Material gasket                                 | FKM                                                                                                                 |
| <b>Mechanical data   Mounting data</b>          |                                                                                                                     |
| Mounting method                                 | inserted, screwed, Shaking protection                                                                               |
| <b>Environmental characteristics   Climatic</b> |                                                                                                                     |

|                                        |                            |
|----------------------------------------|----------------------------|
| Operating temperature min.             | -30 °C                     |
| Operating temperature max.             | 85 °C                      |
| Additional condition temperature range | depending on cable quality |

#### Important installation notes

|                        |                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
| Note on strain relief  | Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.                                                   |

#### Conformity

|                  |                          |
|------------------|--------------------------|
| Product standard | EN IEC 61076-2-101 (M12) |
|------------------|--------------------------|

#### Installation | Cable

|                                          |                                                                             |
|------------------------------------------|-----------------------------------------------------------------------------|
| Cable identification                     | 033                                                                         |
| Cable Type                               | 3                                                                           |
| Stranding                                | 1 × 3 wires stranded                                                        |
| Wire arrangement                         | brown, black, blue                                                          |
| Cable weight                             | 27 g/m                                                                      |
| Material wire insulation                 | PP                                                                          |
| Amount wires                             | 3                                                                           |
| Outer diameter insulation                | 1,25 mm                                                                     |
| Outer diameter tolerance core insulation | ± 0,05 mm                                                                   |
| 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                                                              |
| Outer-diameter (jacket)                  | 4,1 mm                                                                      |
| Tolerance outer diameter (sheath)        | ± 5 %                                                                       |
| Material jacket                          | PUR                                                                         |
| Shore hardness jacket                    | 90 ± 5 Shore A                                                              |
| Freedom from ingredients (jacket)        | lead-free, cadmium-free, CFC-free, halogen-free, silicone-free              |
| Material property (jacket)               | abrasion-resistant, low adhesion, good machinability, matte                 |
| Conductor resistance (wire)              | 57 Ω/km @ 20 °C                                                             |
| Nominal voltage max.                     | 300 V                                                                       |
| Withstand voltage (wire - wire)          | 2.5 kV @ 60 s                                                               |
| Withstand voltage (wire - jacket)        | 2.5 kV @ 60 s                                                               |
| Current load capacity (standard)         | to DIN VDE 0298-4                                                           |
| Current load capacity max. (wire)        | 6 A                                                                         |
| Operating temperature min. (static)      | -40 °C                                                                      |
| Operating temperature max. (static)      | 80 °C / 90 °C @ 10000 h Operation                                           |
| Operating temperature min. (dynamic)     | -25 °C                                                                      |
| Operating temperature max. (dynamic)     | 80 °C / 90 °C @ 10000 h Operation                                           |
| Operating temperature min. (drag chain)  | -25 °C                                                                      |
| Operating temperature max. (drag chain)  | 80 °C / 90 °C @ 10000 h Operation                                           |
| Flame resistance                         | UL 1581 § 1090, CSA FT2, IEC 60332-2-2                                      |
| Oil resistance                           | IEC 60811-404                                                               |
| Chemical resistance                      | good                                                                        |
| Other resistances                        | good resistance to gasoline, resistant to hydrolysis, resistant to microbes |
| Bending radius (fixed)                   | 5 × Outer diameter                                                          |
| Bending radius (dynamic)                 | 10 × Outer diameter                                                         |
| No. of bending cycles (C-track)          | 10 Mio. @ 25 °C                                                             |
| Traversing distance (C-track)            | 10 m @ 25 °C   horizontal                                                   |
| Travel speed (C-track)                   | 3 m/s @ 25 °C                                                               |

|                        |                             |
|------------------------|-----------------------------|
| Acceleration (C-track) | 10 m/s <sup>2</sup> @ 25 °C |
| No. of torsion cycles  | 5 Mio.                      |
| Torsion stress         | ± 360 °/m                   |
| Torsion speed          | 35 cycles/min               |