

### M12 female 0° A-cod. with cable LED

PVC 4x0.34 bk UL/CSA 2m

Art.No.: 7000-12291-6140200

Weight: 0.096 kg

Country of origin: CZ

Model designation: MSBL1-T614\_2.0

### 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

2× LED (PNP)

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

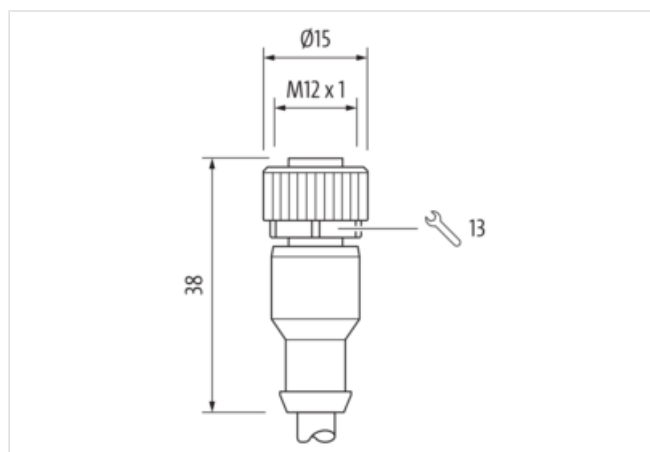
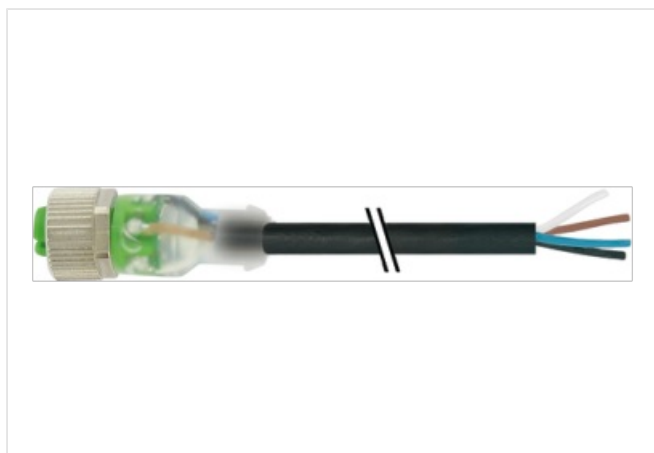
Plastic housings with good resistance against chemicals and oils.

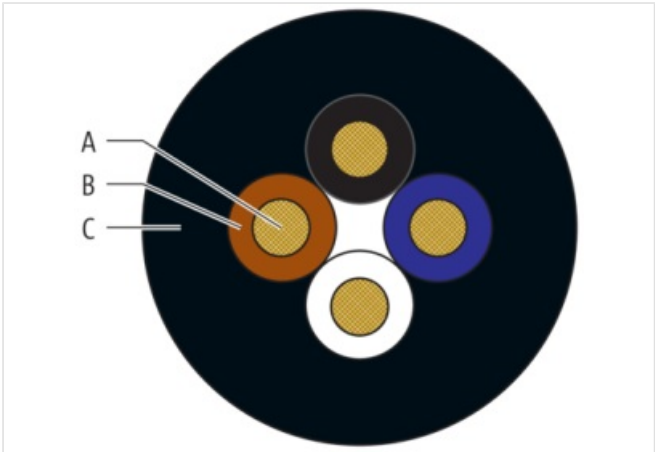
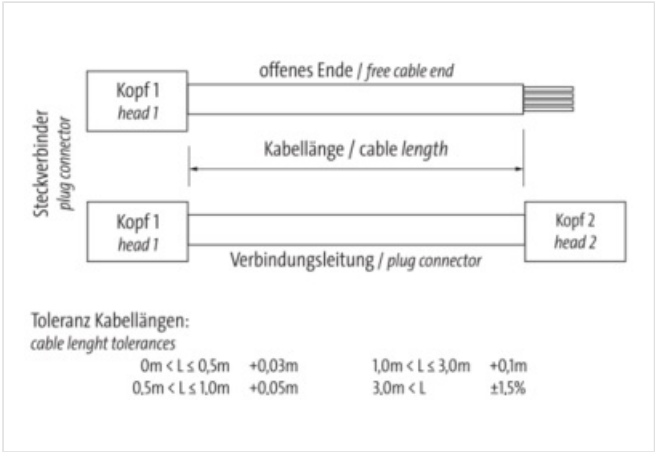
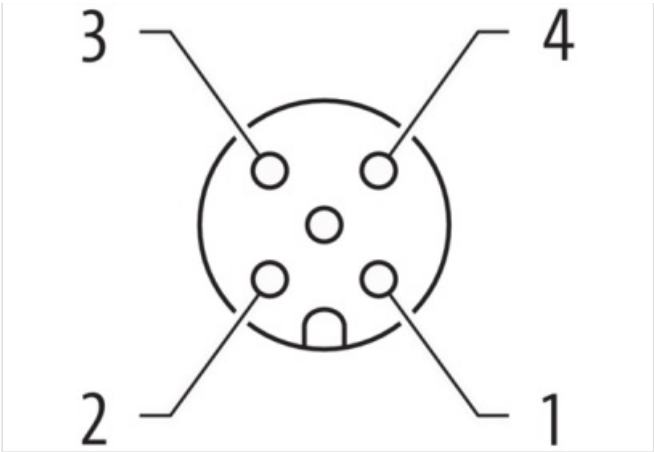
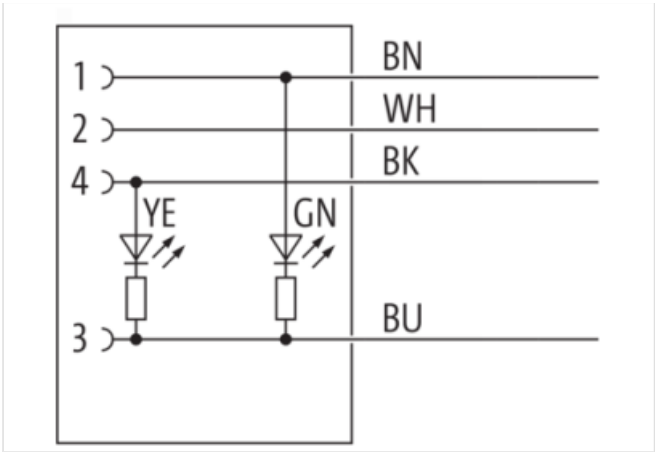
The resistance to aggressive media should be individually tested for your application. Further details on request.

Further cable lengths on request.

### [Link to Product](#)

#### Illustration





Product may differ from Image



Header

Material short text MSBL1-T614\_2.0

Cable length 2,00 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          |

#### Commercial data

|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| URL Webshop           | <a href="https://shop.murrelektronik.com/7000-12291-6140200">https://shop.murrelektronik.com/7000-12291-6140200</a> |
| GTIN                  | 4048879209274                                                                                                       |
| 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                   | 4048879209274                                                                                                       |
| Packaging unit        | 1                                                                                                                   |

#### Electrical data | Supply

|                                       |      |
|---------------------------------------|------|
| Operating voltage DC                  | 24 V |
| Operating voltage DC min.             | 18 V |
| Operating voltage DC max.             | 30 V |
| Current operating per contact max.    | 4 A  |
| Operating voltage DC max. (UL-listed) | 30 V |

#### Diagnostics

|                       |    |
|-----------------------|----|
| Status indication LED | No |
|-----------------------|----|

#### Installation | Connection

|        |        |
|--------|--------|
| Gender | female |
|--------|--------|

Mounting set M12 x 1

#### Device protection | Electrical

|                                        |                   |
|----------------------------------------|-------------------|
| Degree of protection (EN IEC 60529)    | IP67, IP66K, IP65 |
| Additional condition protection degree | inserted, screwed |
| Pollution Degree                       | 3                 |
| Rated surge voltage                    | 0,8 kV            |
| Material group (IEC 60664-1)           | I                 |

#### Mechanical data | Material data

|                           |                  |
|---------------------------|------------------|
| Material screw connection | Zinc die-casting |
| Coating of fitting        | nickel plated    |
| Locking material          | Zinc die-casting |
| Coating locking           | Nickeled         |

#### Mechanical data | Mounting data

|                 |                                       |
|-----------------|---------------------------------------|
| Mounting method | inserted, screwed, Shaking protection |
|-----------------|---------------------------------------|

#### Environmental characteristics | Climatic

|                                        |                            |
|----------------------------------------|----------------------------|
| 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                     | 614                                              |
| Cable Type                               | 1                                                |
| Amount stranding                         | 1                                                |
| Stranding                                | 4 wires stranded                                 |
| Wire arrangement                         | brown, black, blue, white                        |
| Cable weight                             | 37 g/m                                           |
| Material wire insulation                 | PVC                                              |
| Amount wires                             | 4                                                |
| Outer diameter insulation                | 1,25 mm                                          |
| Outer diameter tolerance core insulation | ± 0,05 mm                                        |
| Shore hardness wire insulation           | 45 ± 5 Shore D                                   |
| Material properties wire insulation      | good machinability                               |
| Ingredient freeness wire insulation      | lead-free, cadmium-free, CFC-free, silicone-free |
| Amount strands (wire)                    | 19                                               |
| Diameter of single wires                 | 0,15 mm                                          |
| Conductor crosssection (wire)            | 0,34 mm²                                         |
| Material conductor wire                  | Stranded copper wire, bare                       |
| Conductor type (wire)                    | Strand class 5                                   |
| Outer-diameter (jacket)                  | 5 mm                                             |
| Tolerance outer diameter (sheath)        | ± 5 %                                            |
| Material jacket                          | PVC                                              |
| Shore hardness jacket                    | 85 ± 5 Shore A                                   |
| Freedom from ingredients (jacket)        | lead-free, cadmium-free, CFC-free, silicone-free |
| Material property (jacket)               | good machinability                               |
| Conductor resistance (wire)              | 57 Ω/km @ 20 °C                                  |

|                                      |                                        |
|--------------------------------------|----------------------------------------|
| Nominal voltage max.                 | 300 V                                  |
| Withstand voltage (wire - wire)      | 2 kV @ 60 s                            |
| Withstand voltage (wire - jacket)    | 2 kV @ 60 s                            |
| Current load capacity (standard)     | to DIN VDE 0298-4                      |
| Current load capacity max. (wire)    | 4,8 A                                  |
| Operating temperature min. (static)  | -30 °C                                 |
| Operating temperature max. (static)  | 80 °C                                  |
| Operating temperature min. (dynamic) | -5 °C                                  |
| Operating temperature max. (dynamic) | 80 °C                                  |
| Flame resistance                     | UL 1581 § 1080, CSA FT1, IEC 60332-1-2 |
| Oil resistance                       | good                                   |
| Chemical resistance                  | good                                   |
| Other resistances                    | good resistance to gasoline            |
| Bending radius (fixed)               | 5 × Outer diameter                     |
| Bending radius (dynamic)             | 10 × Outer diameter                    |