

### M12 female 90° A-cod. with cable LED

PVC 3x0.34 ye UL/CSA 10m

Art.No.: 7000-12381-0131000

Weight: 0.364 kg

Country of origin: DE

Model designation: MSD11-R013\_10.0

#### 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 90°

M12, 3-pole

2x LED (PNP)

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

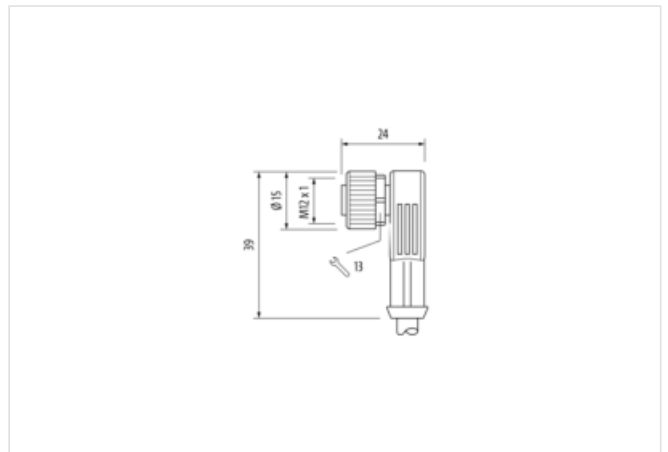
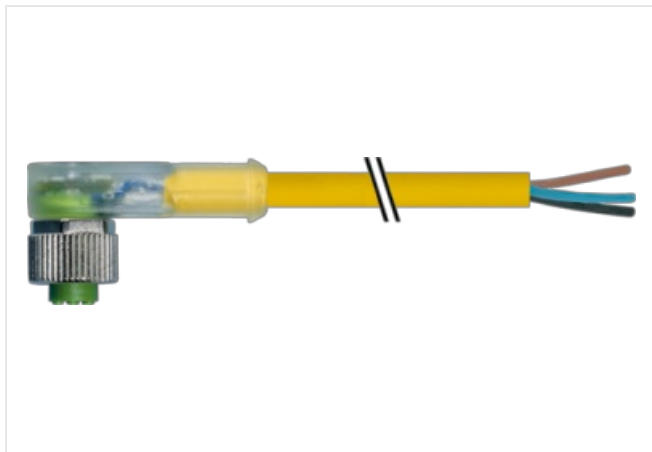
Plastic housings with good resistance against chemicals and oils.

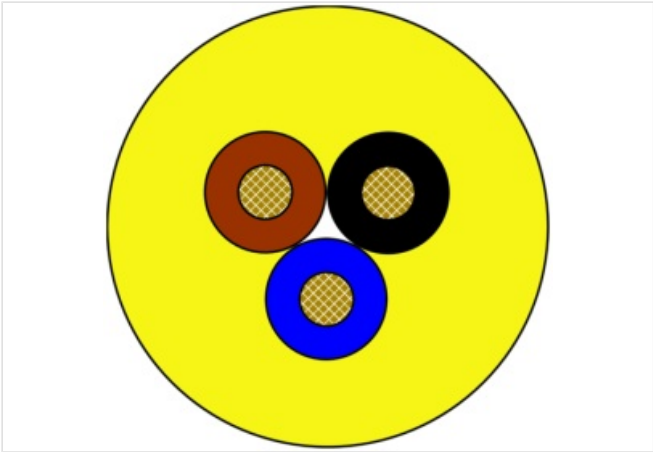
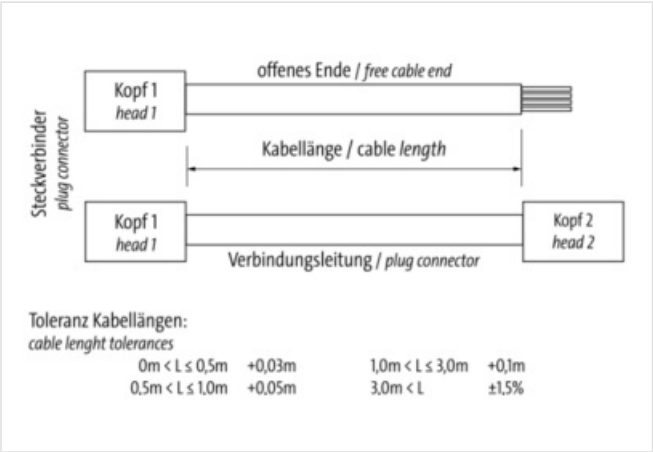
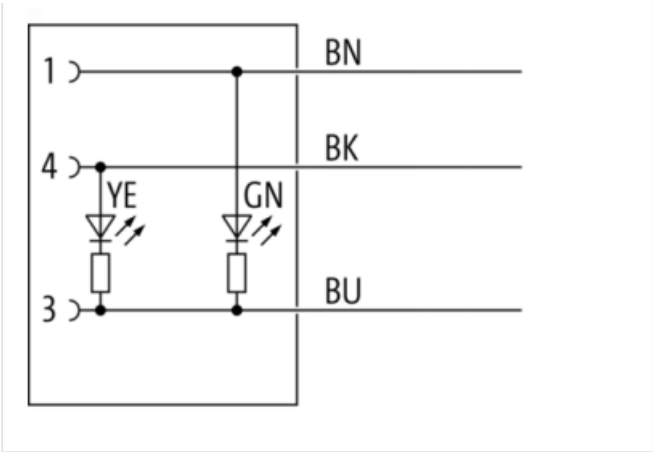
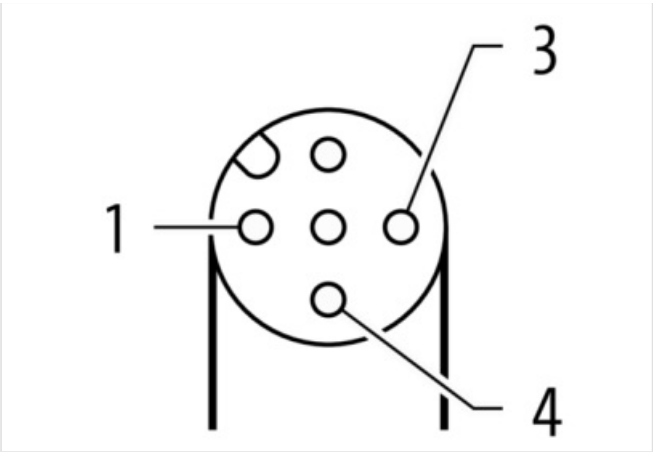
The resistance to aggressive media should be individually tested for your application. Further details on request.

Further cable lengths on request.

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

##### Illustration





Product may differ from Image



|                                           |                   |
|-------------------------------------------|-------------------|
| Cable length                              | 10,00 m           |
| Side 1                                    |                   |
| Family construction form                  | M12               |
| No. of poles                              | 3                 |
| Coding                                    | A                 |
| Gender                                    | female            |
| Mounting method                           | inserted, screwed |
| Threaded hole                             | M12 x 1           |
| Tightening torque                         | 0,6 Nm            |
| Width across flats                        | SW13              |
| Cable outlet                              | angled            |
| 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/7000-12381-0131000">https://shop.murrelektronik.com/7000-12381-0131000</a> |
| GTIN                                   | 4048879205214                                                                                                       |
| EU-Customs tariff number               | 85444290                                                                                                            |
| US-Customs tariff number               | 8544429090                                                                                                          |
| 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                                                                                                            |
| ETIM-9.0                               | EC001855                                                                                                            |
| ETIM-10.0                              | EC001855                                                                                                            |
| customs tariff number                  | 85444290                                                                                                            |
| EAN                                    | 4048879205214                                                                                                       |
| 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                  | green, yellow                                                                                                       |
| 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        |                                                                                                                     |
| Screw connection                       | Zinc die-casting                                                                                                    |
| Coating of fitting                     | nickel plated                                                                                                       |
| Locking material                       | Zinc die-casting                                                                                                    |

|                                                 |                                                                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coating locking                                 | Nickeled                                                                                                                                              |
| 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                                                                                                                            |
| <b>Important installation notes</b>             |                                                                                                                                                       |
| 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.                                                   |
| <b>Conformity</b>                               |                                                                                                                                                       |
| Product standard                                | EN IEC 61076-2-101 (M12)                                                                                                                              |
| <b>Installation   Cable</b>                     |                                                                                                                                                       |
| Cable identification                            | 013                                                                                                                                                   |
| Cable Type                                      | 1                                                                                                                                                     |
| Cable weight                                    | 31 g/m                                                                                                                                                |
| UL AWM Style                                    | 2464 / 1731                                                                                                                                           |
| Stranding                                       | 1 × 3 wires stranded                                                                                                                                  |
| Wire arrangement                                | BN, BK, BU                                                                                                                                            |
| Material wire insulation                        | PVC                                                                                                                                                   |
| Amount wires                                    | 3                                                                                                                                                     |
| Outer diameter insulation                       | 1.25 mm ± 0.05 mm                                                                                                                                     |
| Conductor crosssection (wire)                   | 0,34 mm²                                                                                                                                              |
| Material conductor wire                         | Stranded copper wire, bare                                                                                                                            |
| Core construction (wire)                        | 19 × 0.15 mm                                                                                                                                          |
| Material properties wire insulation             | good machinability                                                                                                                                    |
| Ingredient freeness wire insulation             | lead-free, cadmium-free, CFC-free, silicone-free                                                                                                      |
| Material jacket                                 | PVC                                                                                                                                                   |
| Outer-diameter (jacket)                         | 4.6 mm ± 5 %                                                                                                                                          |
| Jacket Color                                    | yellow / RAL 1021                                                                                                                                     |
| 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 max. (wire)               | 6 A                                                                                                                                                   |
| Current load capacity (standard)                | to DIN VDE 0298-4                                                                                                                                     |
| Operating temperature (static)                  | -30 °C ... 80 °C                                                                                                                                      |
| Operating temperature (dynamic)                 | -5 °C ... 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                                                                                                                           |
| Notes                                           | application-related testing                                                                                                                           |
| Bending radius (fixed)                          | 5 × Outer diameter                                                                                                                                    |
| Bending radius (dynamic)                        | 10 × Outer diameter                                                                                                                                   |