

## M12 male 0° / M12 female 90° A-cod. LED

PVC 3x0.34 bk UL/CSA 3m

Male straight - female 90° M12 - M12, 3-pole 2× LED (PNP), (NPN) on request Art-No. 7005 - M12 Lite - (plastic hexagonal screw) on request Plastic housings with good resistance against chemicals and oils.

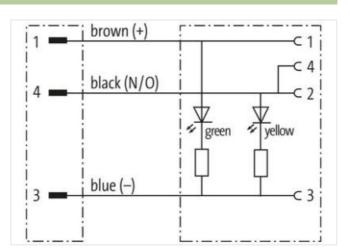
The resistance to aggressive media should be individually tested for your application. Further details on request.

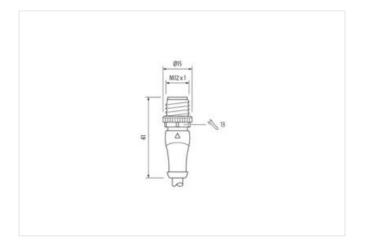
Further cable lengths on request.

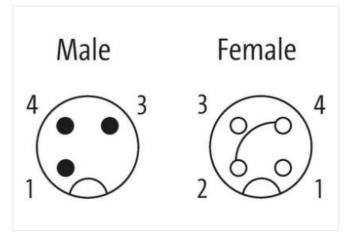
## **Link to Product**

## Illustration



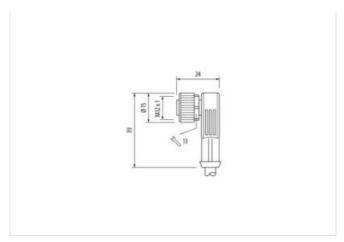








stay connected



Product may differ from Image











| Cable length                              | 3 m               |
|-------------------------------------------|-------------------|
| Side 1                                    |                   |
| Tightening torque                         | 0,6 Nm            |
| Mounting method                           | inserted, screwed |
| Family construction form                  | M12               |
| Thread                                    | M12 x 1           |
| suitable for corrugated tube (internal Ø) | 10 mm             |
| Coding                                    | A                 |
| Material                                  | PUR               |
| Width across flats                        | SW13              |
| Degree of protection (EN IEC 60529)       | IP65, IP66K, IP67 |
| Side 2                                    |                   |
| Tightening torque                         | 0,6 Nm            |
| Mounting method                           | inserted, screwed |
| Family construction form                  | M12               |
| Thread                                    | M12 x 1           |
| suitable for corrugated tube (internal Ø) | 10 mm             |
| 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                                      | 4048879518031     |
| Packaging unit                            | 1                 |



stay connected

| Electrical data   Supply                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating voltage DC                                                                                                                                                                                                                                                                                                                                                                                 | 24 V                                                                                                                                                                                     |
| Operating voltage DC min.                                                                                                                                                                                                                                                                                                                                                                            | 18 V                                                                                                                                                                                     |
| Operating voltage DC max.                                                                                                                                                                                                                                                                                                                                                                            | 30 V                                                                                                                                                                                     |
| Operating voltage DC max. (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                                                                                                                                                                                                                                                                                                                                                                                  | 0,8 kV                                                                                                                                                                                   |
| Material group (IEC 60664-1)                                                                                                                                                                                                                                                                                                                                                                         | I                                                                                                                                                                                        |
| Mechanical data   Material data                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                          |
| Coating locking                                                                                                                                                                                                                                                                                                                                                                                      | Nickeled                                                                                                                                                                                 |
| Coating of fitting                                                                                                                                                                                                                                                                                                                                                                                   | nickel plated                                                                                                                                                                            |
| Locking material                                                                                                                                                                                                                                                                                                                                                                                     | Zinc die-casting                                                                                                                                                                         |
| Material screw connection                                                                                                                                                                                                                                                                                                                                                                            | Zinc die-casting                                                                                                                                                                         |
| Mechanical data   Mounting data                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                          |
| Mounting method                                                                                                                                                                                                                                                                                                                                                                                      | inserted, screwed, Shaking protection                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 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.                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                          |
| Conformity                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                          |
| •                                                                                                                                                                                                                                                                                                                                                                                                    | DIN EN 61076-2-101 (M12)                                                                                                                                                                 |
| Product standard                                                                                                                                                                                                                                                                                                                                                                                     | DIN EN 61076-2-101 (M12)                                                                                                                                                                 |
| Product standard  Installation   Cable                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                          |
| Product standard  Installation   Cable wire arrangement                                                                                                                                                                                                                                                                                                                                              | brown, black, blue                                                                                                                                                                       |
| Product standard  Installation   Cable  wire arrangement  Cable identification                                                                                                                                                                                                                                                                                                                       | brown, black, blue<br>613                                                                                                                                                                |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type                                                                                                                                                                                                                                                                                                           | brown, black, blue 613                                                                                                                                                                   |
| Product standard  Installation   Cable wire arrangement Cable identification Cable Type Jacket Color                                                                                                                                                                                                                                                                                                 | brown, black, blue 613 1 black                                                                                                                                                           |
| Product standard  Installation   Cable wire arrangement Cable identification Cable Type Jacket Color Type of Certificate                                                                                                                                                                                                                                                                             | brown, black, blue 613 1 black cURus                                                                                                                                                     |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding                                                                                                                                                                                                                                                      | brown, black, blue 613 1 black cURus 1                                                                                                                                                   |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding                                                                                                                                                                                                                                           | brown, black, blue 613 1 black cURus 1 3 wires twisted                                                                                                                                   |
| Product standard  Installation   Cable wire arrangement Cable identification Cable Type Jacket Color Type of Certificate Amount stranding Stranding wire arrangement                                                                                                                                                                                                                                 | brown, black, blue 613 1 black cURus 1 3 wires twisted brown, black, blue                                                                                                                |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth                                                                                                                                                                                                           | brown, black, blue 613 1 black cURus 1 3 wires twisted brown, black, blue 34,1 g/m                                                                                                       |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket                                                                                                                                                                                          | brown, black, blue 613  1 black cURus 1 3 wires twisted brown, black, blue 34,1 g/m PVC                                                                                                  |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket                                                                                                                                                                   | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A                                                                          |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)                                                                                                                                | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A  lead-free, cadmium-free, CFC-free, silicone-free                        |
| Installation   Cable wire arrangement Cable identification Cable Type Jacket Color Type of Certificate Amount stranding Stranding wire arrangement Cable weigth Material jacket Shore hardness jacket Freedom from ingredients (jacket) Outer-diameter (jacket)                                                                                                                                      | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A  lead-free, cadmium-free, CFC-free, silicone-free  4,6 mm                |
| Installation   Cable wire arrangement Cable identification Cable Type Jacket Color Type of Certificate Amount stranding Stranding wire arrangement Cable weigth Material jacket Shore hardness jacket Freedom from ingredients (jacket) Outer-diameter (jacket) Tolerance outer diameter (sheath)                                                                                                    | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A  lead-free, cadmium-free, CFC-free, silicone-free  4,6 mm  ± 5 %         |
| Installation   Cable wire arrangement Cable identification Cable Type Jacket Color Type of Certificate Amount stranding Stranding wire arrangement Cable weigth Material jacket Shore hardness jacket Freedom from ingredients (jacket) Outer-diameter (jacket) Tolerance outer diameter (sheath) Material wire insulation                                                                           | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A  lead-free, cadmium-free, CFC-free, silicone-free  4,6 mm  ± 5 %  PVC    |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation  Amount wires                             | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A  lead-free, cadmium-free, CFC-free, silicone-free  4,6 mm  ± 5 %  PVC  3 |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation  Amount wires  Outer diameter insulation | brown, black, blue 613 1 black cURus 1 3 wires twisted brown, black, blue 34,1 g/m PVC 85 ± 5 Shore A lead-free, cadmium-free, CFC-free, silicone-free 4,6 mm ± 5 % PVC 3 1,25 mm        |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Jacket Color  Type of Certificate  Amount stranding  Stranding wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation  Amount wires                             | brown, black, blue  613  1  black  cURus  1  3 wires twisted  brown, black, blue  34,1 g/m  PVC  85 ± 5 Shore A  lead-free, cadmium-free, CFC-free, silicone-free  4,6 mm  ± 5 %  PVC  3 |



| 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 mm <sup>2</sup>                                 |
| Material conductor wire                           | Stranded copper wire, bare                           |
| Conductor type (wire)                             | Strand class 5                                       |
| Nominal voltage AC max.                           | 300 V                                                |
| Current load capacity (standard)                  | to DIN VDE 0298-4                                    |
| Current load capacity min. wire                   | 6 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                                          |
| Min. operating temperature (static)               | -30 °C                                               |
| Max. operating temperature (fixed)                | 80 °C                                                |
| Operating temperature min. (dynamic)              | -5 °C                                                |
| Operating temperature max. (dynamic)              | 80 °C                                                |
| UV resistance                                     | DIN EN ISO 4892-2 A                                  |
| Flame resistance                                  | IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  |
| chemical resistance                               | Good, application-related testing                    |
| Gasoline resistance                               | Good, application-related testing                    |
| Oil resistance                                    | Good, application-related testing   DIN EN 60811-404 |
| Bending radius (fixed)                            | 5 x Outer diameter                                   |
| Bending radius (dynamic)                          | 10 x Outer diameter                                  |