

**M8 male 0° / M12 female 90° A-cod. LED**

PUR 3x0.25 bk UL/CSA+robot+drag ch. 2m

Male straight – female 90°

Zinc die casting, save-cover coated

M8 – M12, 3-pole

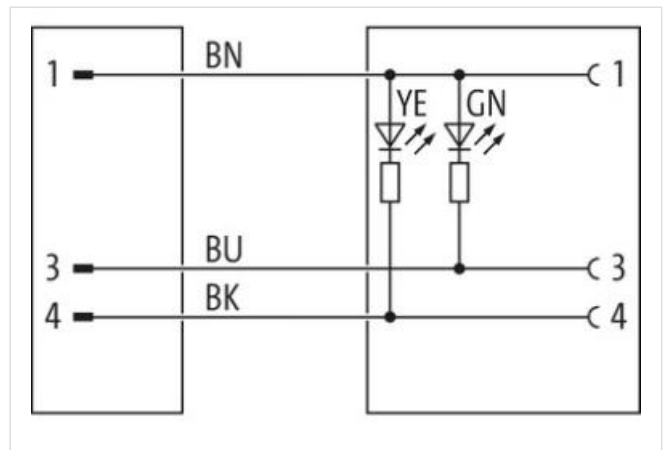
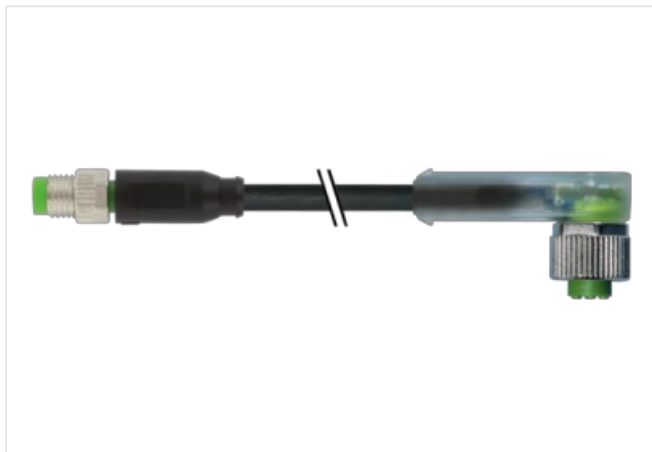
2× LED (PNP), (NPN) on request

Art-No. 7005 - M12/M8 Lite - (plastic hexagonal screw) on request

Further cable lengths 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.

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



Product may differ from Image



Cable length 2 m

Side 1

|   |                   |
|---|-------------------|
| Tightening torque                         | 0,4 Nm            |
| Mounting method                           | inserted, screwed |
| Coating contact                           | gold plated       |
| Family construction form                  | M8                |
| Thread                                    | M8 x 1            |
| suitable for corrugated tube (internal Ø) | 6,5 mm            |
| Coding                                    | A                 |
| Material contact                          | Copper alloy      |
| No. of poles                              | 3                 |
| Width across flats                        | SW9               |

Side 2

|   |                   |
|---|-------------------|
| Tightening torque                         | 0,6 Nm            |
| Mounting method                           | inserted, screwed |
| Coating contact                           | gold plated       |
| Family construction form                  | M12               |
| Thread                                    | M12 x 1           |
| suitable for corrugated tube (internal Ø) | 10 mm             |
| Coding                                    | A                 |
| Material contact                          | Copper alloy      |
| No. of poles                              | 3                 |
| Width across flats                        | SW13              |

Commercial data

|             |          |
|-------------|----------|
| ECLASS-6.0  | 27279218 |
| ECLASS-6.1  | 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                  | 4048879414555 |
| Packaging unit        | 1             |

#### 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  |

#### Diagnostics

|                       |               |
|-----------------------|---------------|
| Status indication LED | green, yellow |
|-----------------------|---------------|

#### Device protection | Electrical

|  |                         |
|--|-------------------------|
| Degree of protection (EN IEC 60529)    | IP65, IP67, IP68, IP66K |
| 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  | safe-cover coated |
| Material gasket  | FKM               |
| Material housing | PUR               |
| Locking material | Zinc die-casting  |

#### Mechanical data | Mounting data

|                 |                                       |
|-----------------|---------------------------------------|
| Mounting method | 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

|                  |   |
|------------------|---|
| Product standard | DIN EN 61076-2-101 (M12), DIN EN 61076-2-114 (M8) |
|------------------|---|

#### Installation | Cable

|                                   |  |
|-----------------------------------|--|
| wire arrangement                  | brown, black, blue   |
| Cable identification              | 650  |
| Cable Type                        | 5  |
| Jacket Color                      | black  |
| Type of Certificate               | cURus  |
| Amount stranding                  | 1  |
| Stranding                         | 3 wires twisted  |
| wire arrangement                  | brown, black, blue   |
| Cable weight                      | 26,4 g/m   |
| Material jacket                   | PUR  |
| Shore hardness jacket             | 58 ± 3 Shore D   |
| Freedom from ingredients (jacket) | lead-free, cadmium-free, CFC-free, halogen-free, silicone-free |
| Outer-diameter (jacket)           | 4,3 mm   |
| Tolerance outer diameter (sheath) | ± 5 %  |
| Material wire insulation          | PP   |

|   |  |
|---|--|
| Amount wires                                      | 3  |
| Outer diameter insulation                         | 1,25 mm  |
| Outer diameter tolerance core insulation          | ± 5 %  |
| Shore hardness wire insulation                    | 74 ± 3 Shore D   |
| Ingredient freeness wire insulation               | lead-free, cadmium-free, CFC-free, halogen-free, silicone-free |
| Amount strands (wire)                             | 32   |
| Diameter of single wires                          | 0,1 mm   |
| Conductor crosssection (wire)                     | 0,25 mm <sup>2</sup>   |
| Material conductor wire                           | Stranded copper wire, bare                                     |
| Conductor type (wire)                             | strand class 6   |
| Nominal voltage AC max.                           | 300 V  |
| Current load capacity (standard)                  | to DIN VDE 0298-4  |
| Current load capacity min. wire                   | 4,5 A  |
| Electrical resistance line constant wire          | 79 Ω/km @ 20 °C  |
| AC withstand voltage (wire - wire)                | 2,5 kV @ 60 s  |
| Power frequency withstand voltage (wire - jacket) | 2,5 kV @ 60 s  |
| Min. operating temperature (static)               | -40 °C   |
| Max. operating temperature (fixed)                | 80 °C / 90 °C @ 10000 h Operation                              |
| Operating temperature min. (dynamic)              | -25 °C   |
| Operating temperature max. (dynamic)              | 80 °C / 90 °C @ 10000 h Operation                              |
| 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                                    | DIN EN 60811-404   Good, application-related testing           |
| Bending radius (fixed)                            | 5 x Outer diameter   |
| Bending radius (dynamic)                          | 10 x Outer diameter  |
| No. of bending cycles (C-track)                   | 10 Mio. @ 25 °C  |
| Traversing distance (C-track)                     | 5 m @ 25 °C   horizontal                                       |
| Travel speed (C-track)                            | 3,3 m/s @ 25 °C  |
| No. of torsion cycles                             | 1 Mio.   |
| Torsion stress                                    | ± 360 °/m  |
| Torsion speed                                     | 35 cycles/min  |