

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

PUR 4x0.34 bk UL/CSA+robot+drag ch. 5m

Male straight – female 90°

M12 – M12, 4-pole

3× 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**



Product may differ from Image



Cable length	5 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
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
Material	PUR
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
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	4048879169240
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, white, yellow
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#### Installation | Connection

Mounting set	M12 x 1
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#### 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	safe-cover coated
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
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#### 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)
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#### Installation | Cable

wire arrangement	brown, black, blue, white
Cable identification	654
Cable Type	5
Jacket Color	black
Type of Certificate	cURus
Amount stranding	1
Stranding	4 wires twisted
wire arrangement	brown, black, blue, white
Cable weight	36,3 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)	4,7 mm
Tolerance outer diameter (sheath)	± 5 %
Material wire insulation	PP
Amount wires	4
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)	42
Diameter of single wires	0,1 mm
Conductor crosssection (wire)	0,34 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	4,8 A
Electrical resistance line constant wire	60 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	UL 1581 § 1100 FT2   IEC 60332-2-2   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
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