

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

PUR 3x0.25 gy UL/CSA+drag ch. 0.3m

Art.No.: 7000-88281-2300030

Weight: 0.028 kg

Country of origin: DE

Model designation: MSD11-H-R230\_0.3

#### 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:

Male straight – female 90°

M8 – M12, 3-pole

2× LED (PNP), (NPN) on request

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

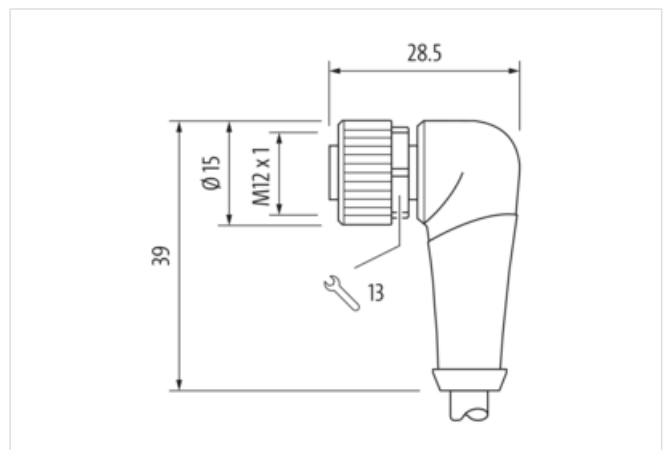
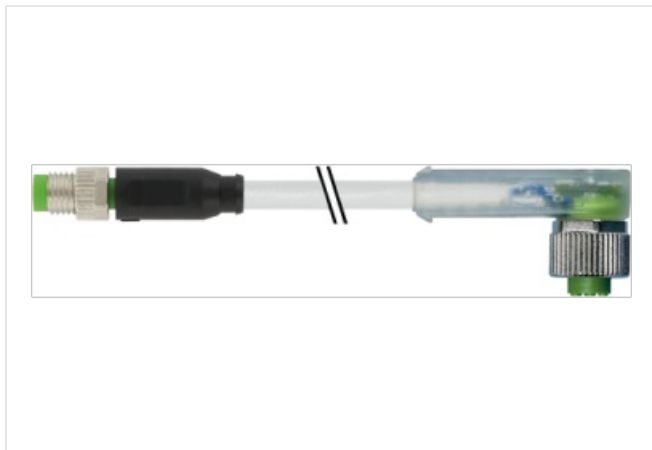
Further cable lengths on request.

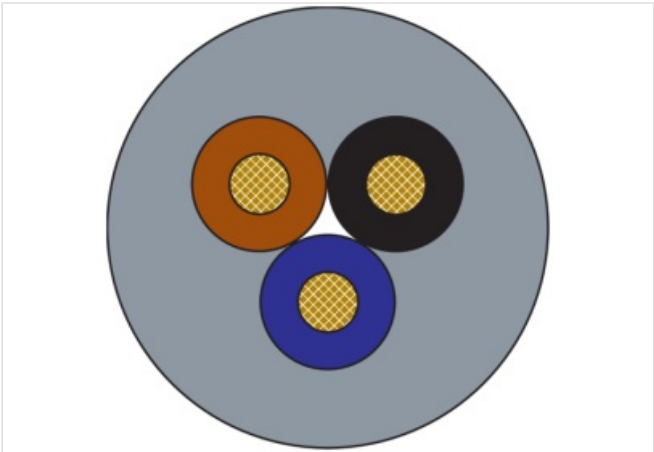
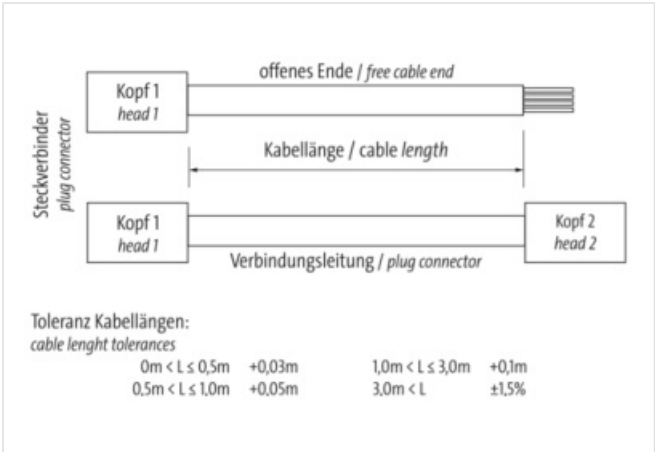
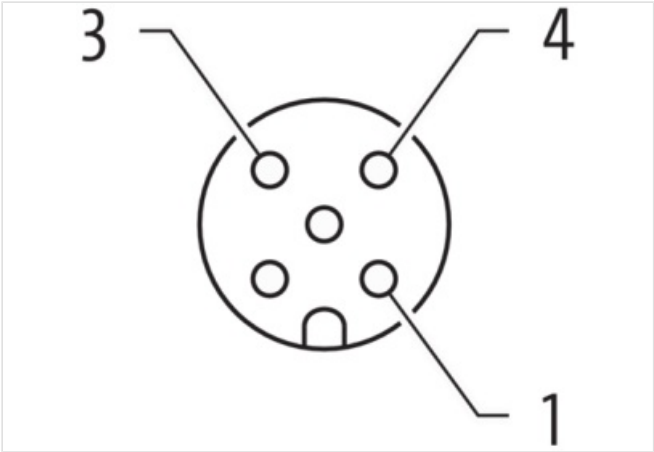
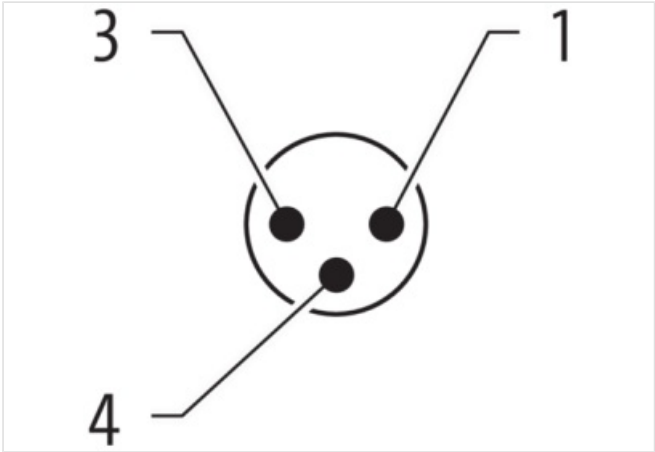
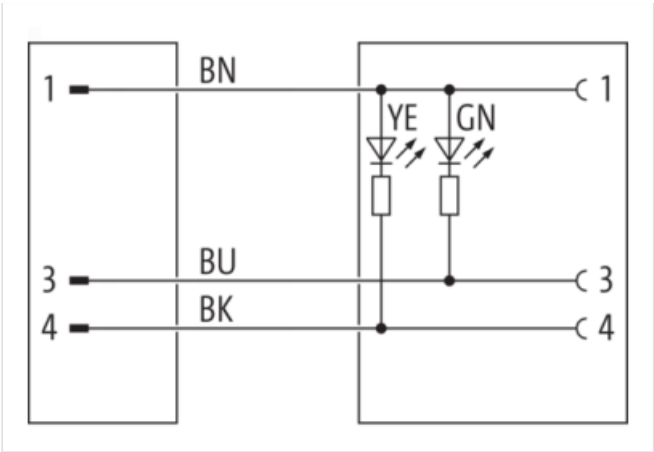
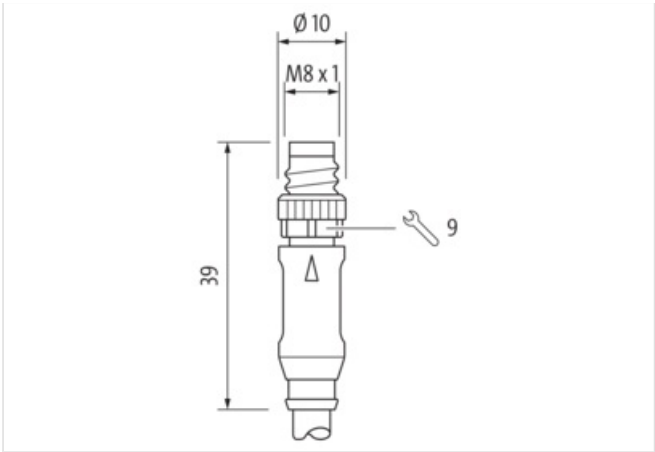
Plastic housings with good resistance against chemicals and oils.

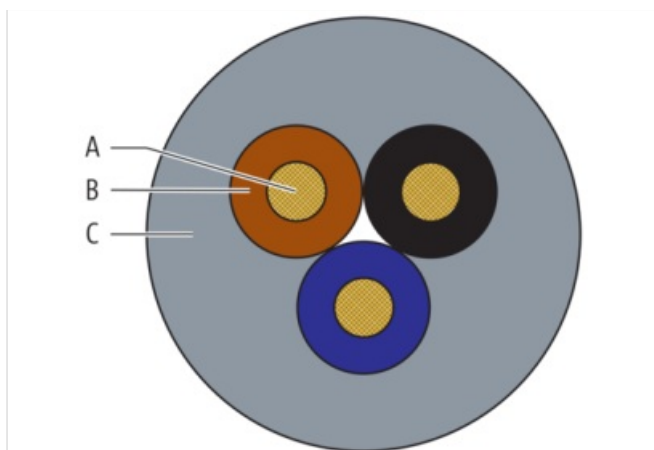
The resistance to aggressive media should be individually tested for your application. Further details on request.

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

##### Illustration







Product may differ from Image

**Header**

Cable length 0,30 m

**Side 1**

Family construction form	M8
No. of poles	3
Coding	A
Gender	male
Mounting method	pluggable, screwed
Threaded hole	M8 x 1
Tightening torque	0,4 Nm
Width across flats	SW9
Cable outlet	straight
suitable for corrugated tube (internal Ø)	6,5 mm
Material contact	Copper alloy
Coating contact	gold plated
Degree of protection (EN IEC 60529)	IP67, IP66K, IP65

**Side 2**

Family construction form	M12
No. of poles	3
Coding	A
Gender	female
Mounting method	pluggable, 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 contact	Copper alloy
Coating contact	gold plated
Degree of protection (EN IEC 60529)	IP67, IP66K, IP65

**Commercial data**

URL Webshop	<a href="https://shop.murrelektronik.com/7000-88281-2300030">https://shop.murrelektronik.com/7000-88281-2300030</a>
customs tariff number	85444290

EAN	4048879122016
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Packaging unit	1
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#### Electrical data | Supply

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

Status indication LED	green, yellow
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#### Device protection | Electrical

Degree of protection (EN IEC 60529)	IP67, IP68, IP66K, IP65
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Additional condition protection degree	inserted, screwed
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Pollution Degree	3
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Rated surge voltage	0,8 kV
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Material group (IEC 60664-1)	I
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#### Mechanical data | Material data

Material housing	PUR
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Locking material	Zinc die-casting
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Coating locking	Nickel
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Material gasket	FKM
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#### Mechanical data | Mounting data

Mounting method	inserted, screwed, Shaking protection
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#### Environmental characteristics | Climatic

Operating temperature min.	-30 °C
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Operating temperature max.	85 °C
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Additional condition temperature range	depending on cable quality
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#### 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.
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Note on strain relief	Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.
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#### Conformity

Product standard	EN IEC 61076-2-101 (M12), EN IEC 61076-2-114 (M8)
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#### Installation | Cable

Cable identification	230
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Cable Type	3
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Amount stranding	1
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Stranding	3 wires stranded
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Wire arrangement	brown, black, blue
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Cable weight	24 g/m
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Material wire insulation	PP
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Amount wires	3
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Outer diameter insulation	1,25 mm
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Outer diameter tolerance core insulation	± 0,05 mm
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Shore hardness wire insulation	70 ± 5 Shore D
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Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
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Amount strands (wire)	32
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Diameter of single wires	0,1 mm
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Conductor crosssection (wire)	0,25 mm²
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Material conductor wire	Stranded copper wire, bare
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Conductor type (wire)	strand class 6
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Outer-diameter (jacket)	4,1 mm
Tolerance outer diameter (sheath)	± 5 %
Material jacket	PUR
Shore hardness jacket	90 ± 5 Shore A
Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Material property (jacket)	abrasion-resistant, low adhesion, good machinability, matte
Conductor resistance (wire)	79 Ω/km @ 20 °C
Nominal voltage max.	300 V
Withstand voltage (wire - wire)	2.5 kV @ 60 s
Withstand voltage (wire - jacket)	2.5 kV @ 60 s
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity max. (wire)	4,5 A
Operating temperature min. (static)	-40 °C
Operating temperature max. (static)	80 °C / 90 °C @ 10000 h Operation
Operating temperature min. (dynamic)	-25 °C
Operating temperature max. (dynamic)	80 °C / 90 °C @ 10000 h Operation
Operating temperature min. (drag chain)	-25 °C
Operating temperature max. (drag chain)	80 °C / 90 °C @ 10000 h Operation
Flame resistance	UL 1581 § 1090, CSA FT2, IEC 60332-2-2
Oil resistance	IEC 60811-404
Chemical resistance	good
Other resistances	good resistance to gasoline, resistant to hydrolysis, resistant to microbes
Bending radius (fixed)	5 × Outer diameter
Bending radius (dynamic)	10 × Outer diameter
No. of bending cycles (C-track)	10 Mio. @ 25 °C
Traversing distance (C-track)	10 m @ 25 °C   horizontal
Travel speed (C-track)	3 m/s @ 25 °C
Acceleration (C-track)	10 m/s² @ 25 °C
No. of torsion cycles	2 Mio.
Torsion stress	± 180 °/m
Torsion speed	35 cycles/min