

**M12 female 90° A-cod. with cable**

PUR 3x0.34 gy UL/CSA+drag ch. 3m

Art.No.: 7000-12321-2330300

Weight: 0.105 kg

Country of origin: US

Model designation: MSDL0-R233\_3.0

**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°

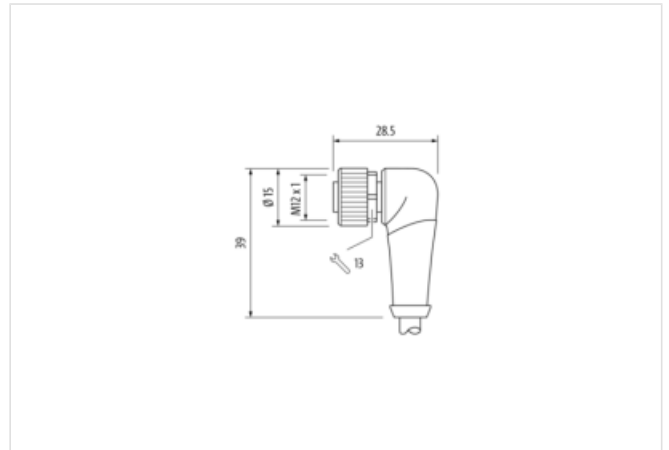
M12, 3-pole

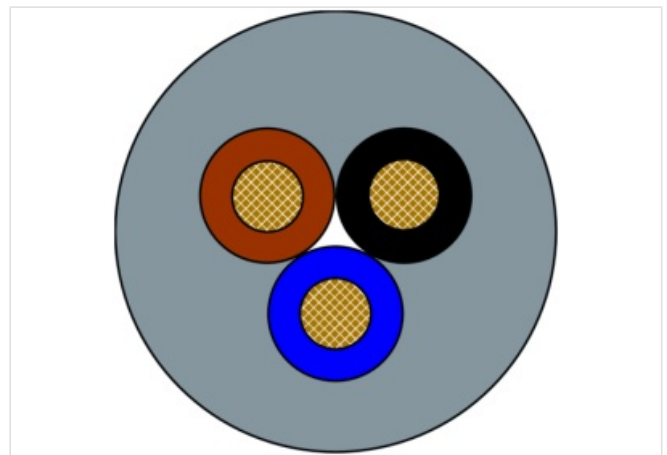
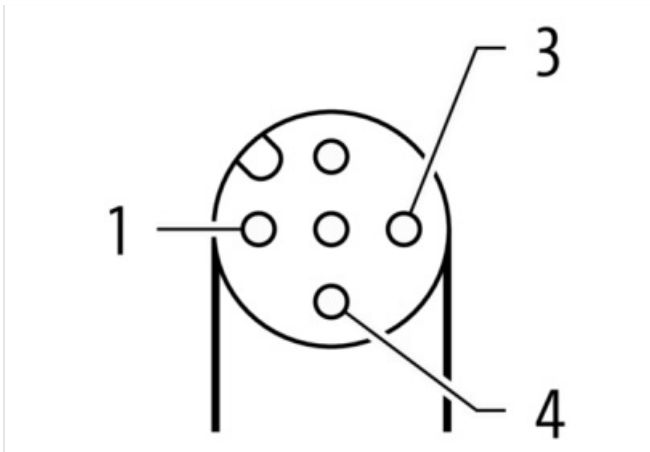
Art-No. 7005 - M12 Lite - (plastic hexagonal screw) on request  
with cable sleeves

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 3,00 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
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Stripping length (jacket) 20 mm

#### Commercial data

URL Webshop	<a href="https://shop.murrelektronik.com/7000-12321-2330300">https://shop.murrelektronik.com/7000-12321-2330300</a>
GTIN	4048879208284
Customs tariff number	85444290
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
customs tariff number	85444290
EAN	4048879208284
Packaging unit	1

#### Electrical data | Supply

Operating voltage AC max.	250 V
Operating voltage DC max.	250 V
Current operating per contact max.	4 A

#### Diagnostics

Status indication LED	No
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#### 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	2,5 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

#### 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
Additional condition temperature range	depending on cable quality

### 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.
Note on strain relief	Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.

### Conformity

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

Cable identification	233
Cable Type	3
Cable weight	22,5 g/m
UL AWM Style	20549 / 10493
Stranding	1 × 3 wires stranded
Wire arrangement	BN, BK, BU
Material wire insulation	PP
Amount wires	3
Outer diameter insulation	1.25 mm ± 0.05 mm
Conductor crosssection (wire)	0,34 mm <sup>2</sup>
Material conductor wire	Stranded copper wire, bare
Core construction (wire)	42 × 0.1 mm
Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Material jacket	PUR
Outer-diameter (jacket)	4.1 mm ± 5 %
Jacket Color	gray / RAL 7040
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)	57 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 max. (wire)	6 A
Current load capacity (standard)	to DIN VDE 0298-4
Operating temperature (static)	-40 °C ... 80 °C / 90 °C @ 10000 h Operation
Operating temperature (dynamic)	-25 °C ... 80 °C / 90 °C @ 10000 h Operation
Operating temperature (drag chain)	-25 °C ... 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
Notes	application-related testing
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/s <sup>2</sup> @ 25 °C
No. of torsion cycles	5 Mio.
Torsion stress	± 360 °/m
Torsion speed	35 cycles/min