

M12 female 90° A-cod. with cable

PUR 5x0.75 gy UL/CSA 20m

Art.No.: 7999-12361-2282000

Weight: 1.540 kg

Country of origin: CZ

Model designation: MSDL0-U228_20.0

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°

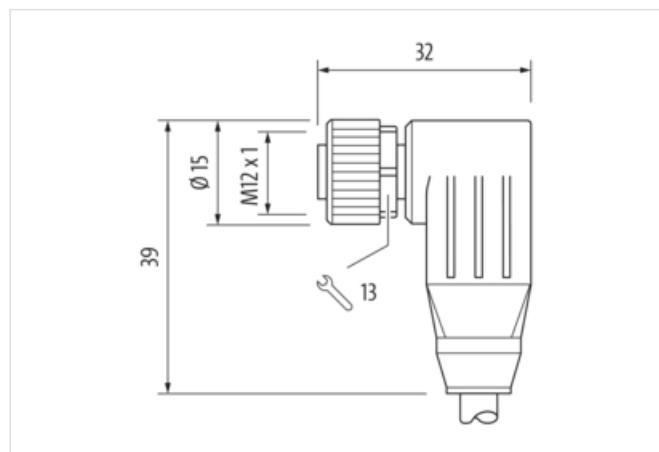
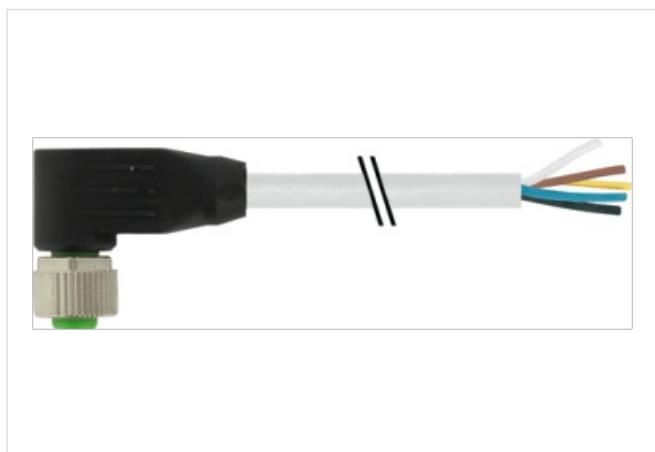
M12, 5-pole

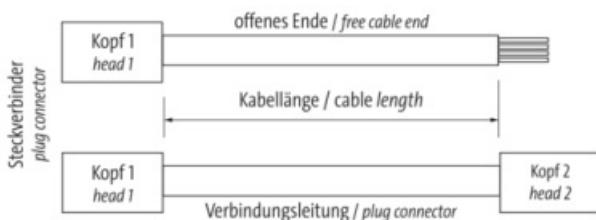
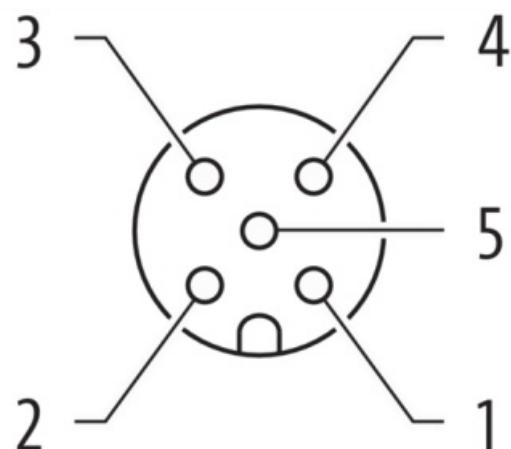
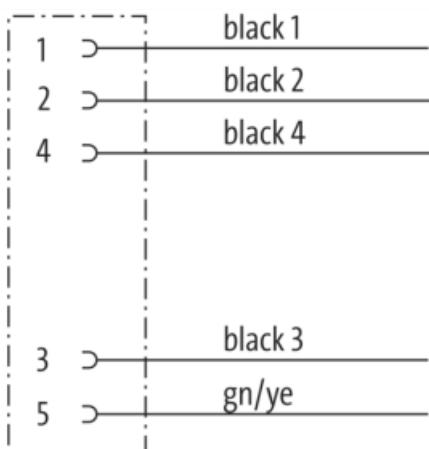
with cable sleeves

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.

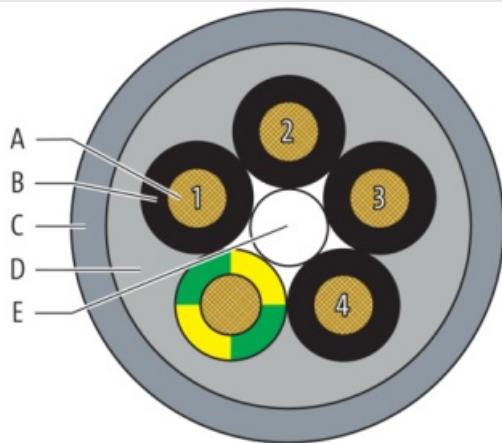
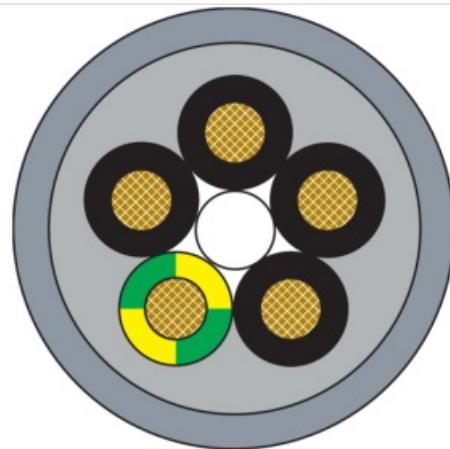
Further cable lengths on request.

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




Toleranz Kabellängen:
cable length tolerances

0m < L ≤ 0,5m	+0,03m	1,0m < L ≤ 3,0m	+0,1m
0,5m < L ≤ 1,0m	+0,05m	3,0m < L	±1,5%



Product may differ from Image



Header

Material short text **MSDL0-U228_20.0**

Cable length **20,00 m**

Side 1

The information in this Product-PDF has been compiled with the utmost care.

Liability for the correctness completeness and topicality of the information is restricted to gross negligence. Version: 2026-02-09

Murrelektronik GmbH | Grabenstraße 29 | 71570 Oppenweiler | Fon +49 (71 91) 47-0 | Fax +49 (71 91) 47-491000 | shop@murrelektronik.com | shop.murrelektronik.com

Family construction form	M12
No. of poles	5
Coding	A
Mounting method	inserted, screwed
Threaded hole	M12 x 1
Tightening torque	0,6 Nm
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP67, IP66K, IP65

Side 2

Stripping length (jacket)	20 mm
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Commercial data

URL Webshop	https://shop.murrelektronik.com/7999-12361-2282000
GTIN	4048879483155
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	4048879483155
Packaging unit	1

Electrical data | Supply

Operating voltage AC max.	125 V
Operating voltage DC max.	125 V
Current operating per contact max.	4 A

Device protection | Electrical

Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	1,5 kV
Material group (IEC 60664-1)	I

Mechanical data | Material data

Material housing	PUR
Locking material	Zinc die-casting
Coating locking	Nickelized

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 bending radius	Attention: 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	228
Cable Type	2
Amount stranding	1
Stranding	5 wires around core filler twisted
Filler	Yes
Cable weight	77 g/m
Material wire insulation	PVC
Amount wires	5
Outer diameter insulation	1,8 mm
Outer diameter tolerance core insulation	± 0,1 mm
Shore hardness wire insulation	43 ± 5 Shore D
Material properties wire insulation	good machinability
Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, silicone-free
Printing color of wire insulation	white (isolation black)
Amount strands (wire)	42
Diameter of single wires	0,15 mm
Conductor crosssection (wire)	0,75 mm ²
Material conductor wire	Stranded copper wire, bare
Conductor type (wire)	strand class 6
Outer-diameter (jacket)	7 mm
Tolerance outer diameter (sheath)	± 5 %
Material jacket	PUR
Shore hardness jacket	85 ± 5 Shore A
Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, silicone-free
Material property (jacket)	abrasion-resistant, low adhesion, good machinability, matte
Material inner jacket	PVC
Color (inner jacket)	gray
Conductor resistance (wire)	26 Ω/km @ 20 °C
Nominal voltage max.	300 V
Withstand voltage (wire - wire)	2 kV @ 60 s
Withstand voltage (wire - jacket)	2 kV @ 60 s
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity max. (wire)	9 A
Operating temperature min. (static)	-30 °C
Operating temperature max. (static)	80 °C
Operating temperature min. (dynamic)	-5 °C
Operating temperature max. (dynamic)	80 °C
Operating temperature min. (drag chain)	-5 °C
Operating temperature max. (drag chain)	80 °C
Oil resistance	good
Chemical resistance	good
Other resistances	good resistance to gasoline, resistant to hydrolysis, resistant to microbes
Bending radius (fixed)	10 × Outer diameter

Bending radius (dynamic)	15 x Outer diameter
No. of bending cycles (C-track)	2 Mio. @ 25 °C
Traversing distance (C-track)	5 m @ 25 °C
Travel speed (C-track)	3.3 m/s @ 25 °C
Acceleration (C-track)	5 m/s ² @ 25 °C