

#### M12 female 90° A-cod. with cable LED

PVC 3x0.34 gy UL/CSA 5m

Art.No.: 7000-12381-2130500

Weight: 0.188 Country of origin: DE

Model designation: MSDL1-R213\_5.0

# 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

2× LED (PNP)

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

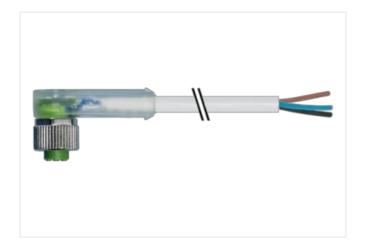
Plastic housings with good resistance against chemicals and oils.

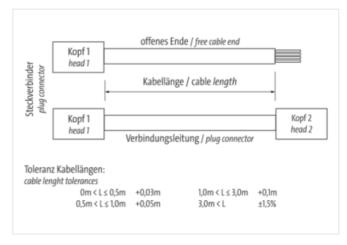
The resistance to aggressive media should be individually tested for your application. Further details on request.

Further cable lengths on request.

## **Link to Product**

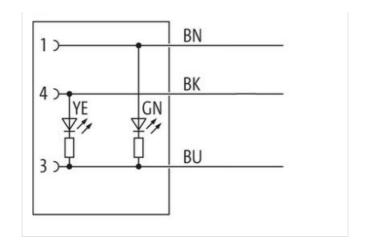
### Illustration

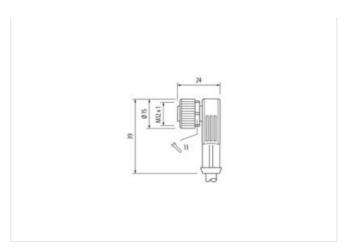


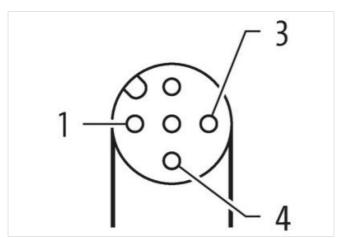




stay connected







Product may differ from Image











Cable length	5 m
Side 1	
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
Cable outlet	angled
Coding	A
Material contact	Copper alloy
Material	PUR
No. of poles	3
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
Side 2	
Stripping length (jacket)	20 mm
Family construction form	free cable end



Commercial data	
	07070040
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
ETIM-6.0	EC001855
ETIM-7.0	EC001855
ETIM-8.0	EC001855
customs tariff number	85444290
customs tariff number	85444290
EAN	4048879205023
EAN	4048879205023
Packaging unit	1
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
	g.co., ye.co.
Installation   Connection	g. 50.11, j. 5.115.11
	20 mm
Installation   Connection	
Installation   Connection Stripping length (jacket)	20 mm
Installation   Connection Stripping length (jacket) Mounting set Gender	20 mm M12 x 1
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical	20 mm M12 x 1 female
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)	20 mm M12 x 1 female  IP65, IP67, IP66K
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)  Additional condition protection degree	20 mm M12 x 1 female  IP65, IP67, IP66K inserted, screwed
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)  Additional condition protection degree  Pollution Degree	20 mm M12 x 1 female  IP65, IP67, IP66K inserted, screwed 3
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)  Additional condition protection degree  Pollution Degree  Rated surge voltage	20 mm M12 x 1 female  IP65, IP67, IP66K inserted, screwed 3 0,8 kV
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)	20 mm M12 x 1 female  IP65, IP67, IP66K inserted, screwed 3
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Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Material gasket  Locking material	20 mm M12 x 1 female  IP65, IP67, IP66K inserted, screwed 3 0,8 kV I  Nickeled nickel plated FKM Zinc die-casting
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Degree of protection (EN IEC 60529)  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Material gasket  Locking material  Material screw connection	20 mm M12 x 1 female  IP65, IP67, IP66K inserted, screwed 3 0,8 kV I  Nickeled nickel plated FKM Zinc die-casting
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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.

Conformity	
Product standard	DIN EN 61076-2-101 (M12)
Installation   Cable	
wire arrangement	brown, black, blue
Cable identification	213
Cable Type	1
Jacket Color	gray
Type of Certificate	cURus
Amount stranding	1
Stranding	3 wires twisted
wire arrangement	brown, black, blue
Cable weigth	34,1 g/m
Material jacket	PVC
Shore hardness jacket	85 ± 5 Shore A
Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, silicone-free
Outer-diameter (jacket)	4,6 mm
Tolerance outer diameter (sheath)	±5%
Material wire insulation	PVC
Amount wires	3
Outer diameter insulation	1,25 mm
Outer diameter tolerance core insulation	± 5 %
Shore hardness wire insulation	45 ± 5 Shore D
Material properties wire insulation	good machinability
Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, silicone-free
Amount strands (wire)	19
Diameter of single wires	0,15 mm
Conductor crosssection (wire)	0,34 mm <sup>2</sup>
Material conductor wire	Stranded copper wire, bare
Conductor type (wire)	Strand class 5
Nominal voltage AC max.	300 V
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity min. wire	6 A
Electrical resistance line constant wire	57 Ω/km @ 20 °C
AC withstand voltage (wire - wire)	2 kV @ 60 s
Power frequency withstand voltage (wire - jacket)	2 kV @ 60 s
Min. operating temperature (static)	-30 °C
Max. operating temperature (fixed)	80 °C
Operating temperature min. (dynamic)	-5 °C
Operating temperature max. (dynamic)	80 °C
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	Good, application-related testing   DIN EN 60811-404
Bending radius (fixed)	5 x Outer diameter
Bending radius (dynamic)	10 x Outer diameter