

**M12 male 0° / M12 female 90° A-cod. LED F&B Pro**

TPE-S 4x0.34 bu UL robot+drag ch. 1.5m

## Plug Connectors for Food &amp; Beverage

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

Further cable lengths on request.

Male straight

Female 90° with LED

M12 F&amp;B Pro

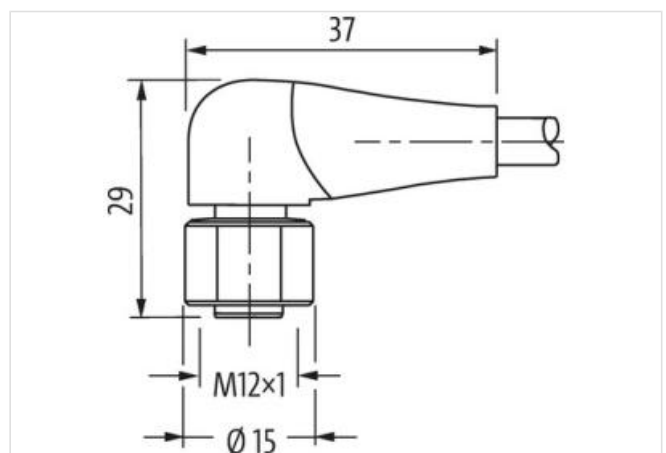
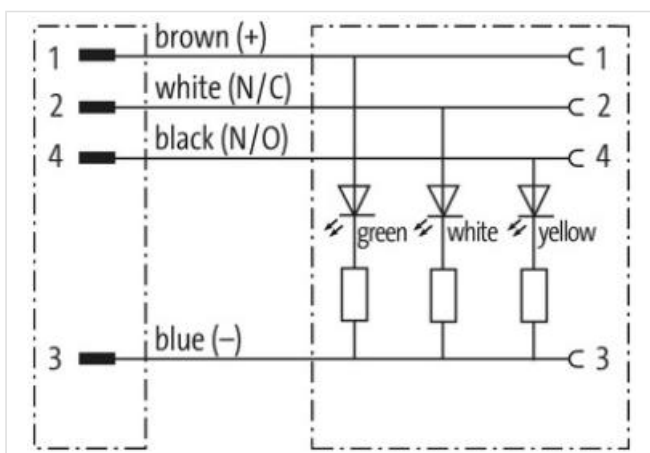
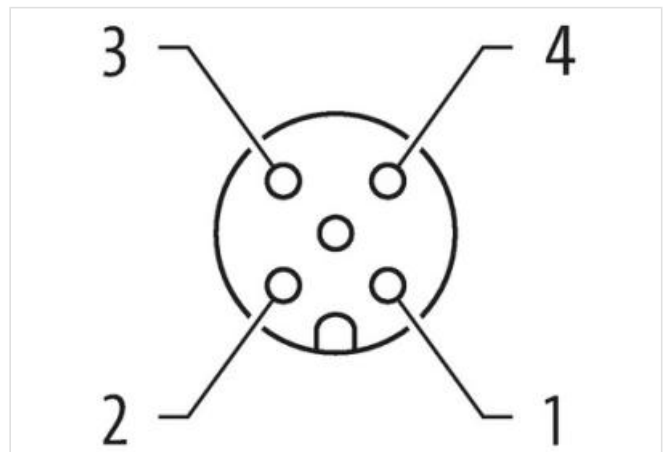
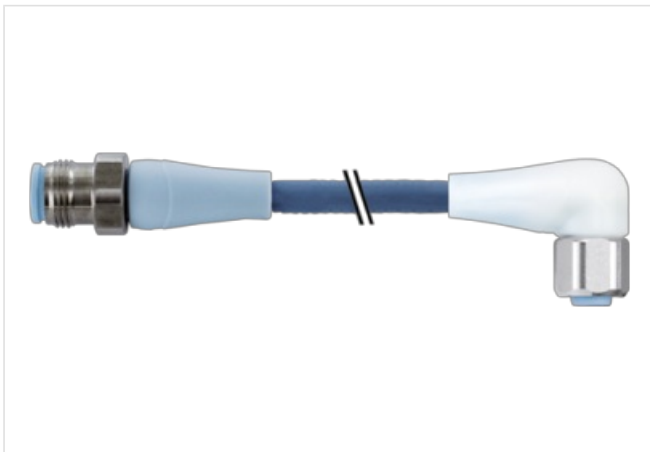
4-pole

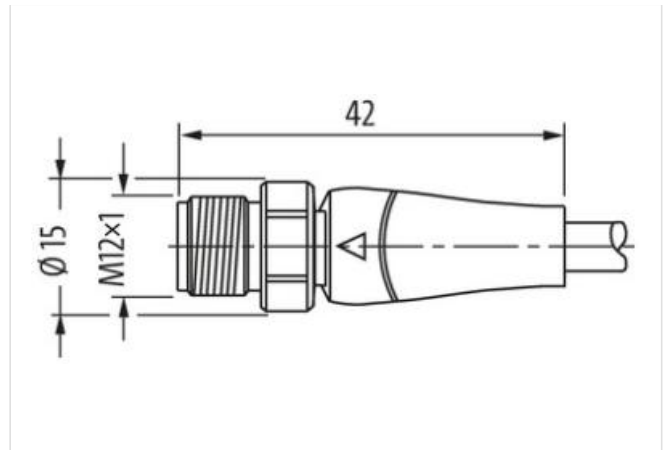
Stainless steel 1.4404 (V4A)

without cable sleeves

IP69K

Plastic housings with good resistance against chemicals and oils.

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



Product may differ from Image

Cable length	1,5 m
<b>Side 1</b>	
Tightening torque	0,6 Nm
Mounting method	inserted, screwed
Coating contact	gold plated
Family construction form	M12
Thread	M12 x 1
Coding	A
Material contact	Copper alloy
No. of poles	4
Width across flats	SW14
Degree of protection (EN IEC 60529)	IP65, IP68, IP69K
<b>Side 2</b>	
Tightening torque	0,6 Nm
Mounting method	inserted, screwed
Coating contact	gold plated
Family construction form	M12
Thread	M12 x 1
Coding	A
Material contact	Copper alloy
No. of poles	4
Degree of protection (EN IEC 60529)	IP65, IP68, IP69K
<b>Commercial data</b>	
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
customs tariff number	85444290
GTIN	4048879768405
Packaging unit	1
<b>Electrical data   Supply</b>	

Operating voltage DC	24 V
Operating voltage DC min.	18 V
Operating voltage DC max.	30 V
Current operating per contact max.	4 A

#### Diagnostics

Status indication LED	green, white, yellow
-----------------------	----------------------

#### 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

Contour for corrugated hose	without
-----------------------------	---------

#### Mechanical data | Material data

Color contact carrier	ice blue
Material gasket	EPDM
Material housing	PP
Material contact carrier	PP
Locking material	Stainless steel 1.4404 (V4A)

#### Mechanical data | Mounting data

Mounting method	inserted, screwed, Shaking protection
-----------------	---------------------------------------

#### Environmental characteristics | Climatic

Operating temperature min.	-40 °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), FDA conform
------------------	---------------------------------------

#### Installation | Cable

wire arrangement	brown, black, blue, white
Cable identification	321
Jacket Color	blue
Amount stranding	1
Stranding	4 wires twisted
wire arrangement	brown, black, blue, white
Cable weight	29,7 g/m
Material jacket	TPE-S
Shore hardness jacket	47 ± 5 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	1,27 mm
Outer diameter tolerance core insulation	± 5 %
Shore hardness wire insulation	64 ± 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	58 Ω/km @ 20 °C
AC withstand voltage (wire - wire)	3 kV @ 60 s
Min. operating temperature (static)	-40 °C
Max. operating temperature (fixed)	105 °C
Operating temperature min. (dynamic)	-25 °C
Operating temperature max. (dynamic)	105 °C
Flame resistance	UL 1581 § 1100 FT2   UL 1581 § 1090   IEC 60332-2-2
chemical resistance	Good, application-related testing
Gasoline resistance	Good, application-related testing
Oil resistance	DIN EN 60811-404   Good, application-related testing
Bending radius (fixed)	5 x Outer diameter
Bending radius (dynamic)	10 x Outer diameter
No. of bending cycles (C-track)	4 Mio. @ 25 °C
Traversing distance (C-track)	10 m @ 25 °C   horizontal
Travel speed (C-track)	3 m/s @ 25 °C
No. of torsion cycles	2 Mio.
Torsion stress	± 180 °/m
Torsion speed	35 cycles/min