

### M12 male 0° A-cod. with cable shielded

PUR 4x0.34 shielded gy 2.5m

Art.No.: 7000-13081-3310250

Weight: 0.172

Country of origin: CZ

Model designation: MSAL0-T331\_2.5-ZE

### 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**

**M12, 4-pole**

**A-coded**

**shielded**

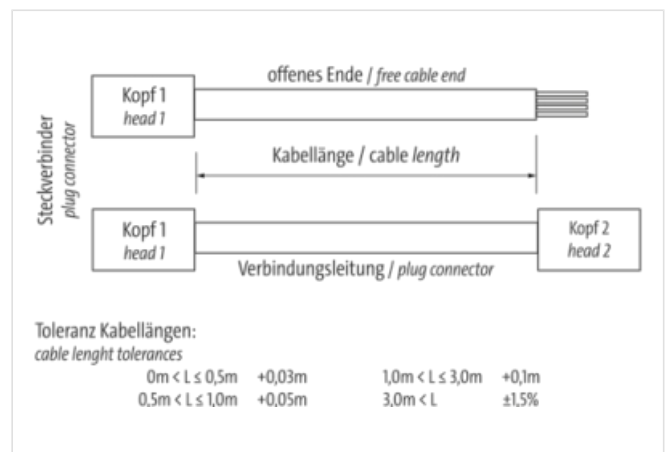
**Plastic housings with good resistance against chemicals and oils.**

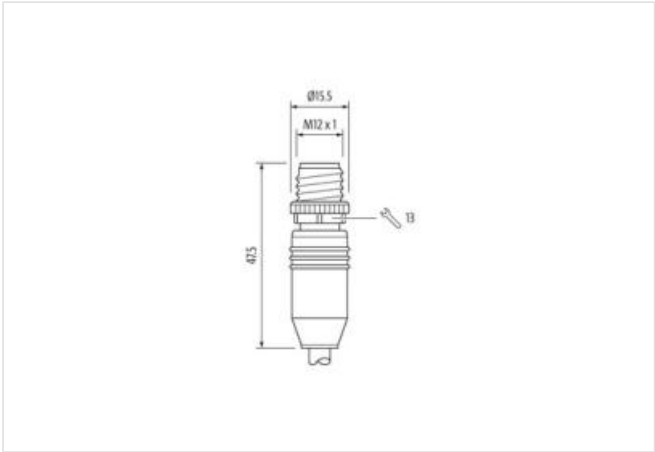
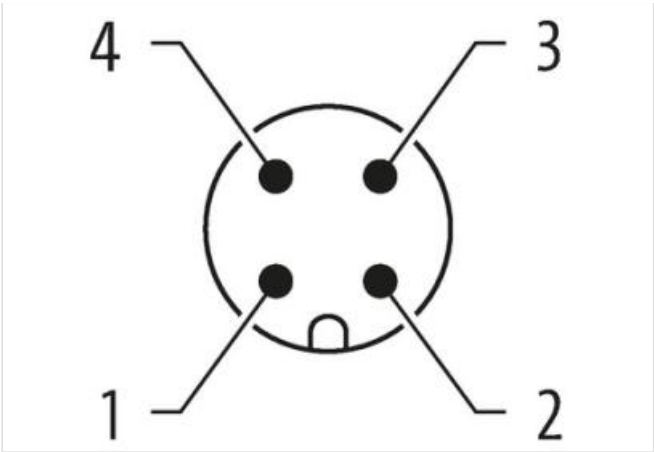
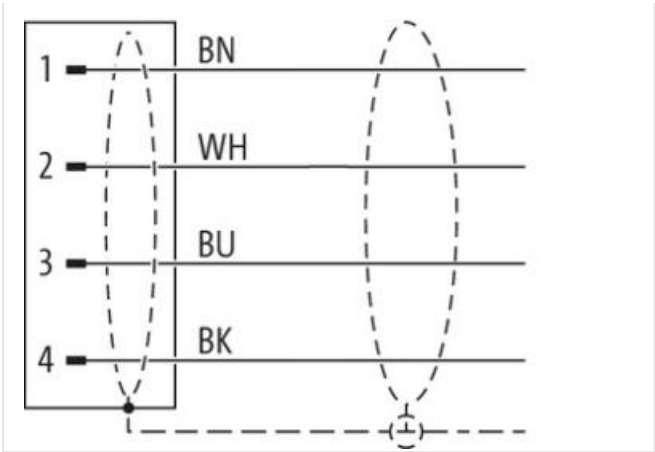
**The resistance to aggressive media should be individually tested for your application. Further details on request.**

**Further cable lengths on request.**

### [Link to Product](#)

#### Illustration





Product may differ from Image



Cable length	2,5 m
Side 1	
Tightening torque	0,6 Nm
Mounting method	inserted, screwed
Coating contact	gold plated
Family construction form	M12
Thread	M12 x 1
Coding	A
Material contact	Copper alloy
Material	PUR
No. of poles	4
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
Side 2	
Stripping length (jacket)	20 mm
Coating contact	gold plated
Commercial data	
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
GTIN	4048879829106
GTIN	4048879829106
Packaging unit	1
Packaging unit	1
<b>Electrical data   Supply</b>	
Operating voltage AC max.	60 V
Operating voltage DC max.	60 V
Current operating per contact max.	4 A
<b>Diagnostics</b>	
Status indication LED	no
<b>Installation   Connection</b>	
Stripping length (jacket)	20 mm
Mounting set	M12 x 1
<b>Device protection   Electrical</b>	
Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	1,5 kV
Material group (IEC 60664-1)	I
<b>Mechanical data   Material data</b>	
Coating locking	Nickeled
Coating of fitting	nickel plated
Locking material	Zinc die-casting
Material screw connection	Zinc die-casting
<b>Mechanical data   Mounting data</b>	
Mounting method	inserted, screwed, Shaking protection
<b>Environmental characteristics   Climatic</b>	
Operating temperature min.	-25 °C
Operating temperature max.	85 °C
Additional condition temperature range	depending on cable quality
<b>Important installation notes</b>	
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	Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.
<b>Conformity</b>	
Product standard	DIN EN 61076-2-101 (M12)
<b>Installation   Cable</b>	
wire arrangement	brown, black, blue, white

Cable identification	331
Jacket Color	gray
Amount stranding	1
Stranding	4 wires twisted
Banding	Fleece, Foil
wire arrangement	brown, black, blue, white
Cable weight	62,26 g/m
Material jacket	PUR
Shore hardness jacket	85 ± 5 Shore A
Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, silicone-free
Outer-diameter (jacket)	5,9 mm
Tolerance outer diameter (sheath)	± 5 %
Material inner jacket	PVC
Color (inner jacket)	gray
Material wire insulation	PVC
Amount wires	4
Outer diameter insulation	1,4 mm
Outer diameter tolerance core insulation	± 5 %
Shore hardness wire insulation	85 ± 5 Shore A
Material properties wire insulation	good machinability
Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-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
Max. rated voltage (conductor - conductor)	350 V
Max. rated voltage (conductor - ground)	300 V
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity min. wire	4,8 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
AC withstand voltage (wire - shield)	1,5 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)	70 °C
Flame resistance	UL 1581 § 1100 FT2   IEC 60332-2-2   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)	10 x Outer diameter
Bending radius (dynamic)	15 x Outer diameter
No. of bending cycles (C-track)	0,1 Mio. @ 25 °C
Traversing distance (C-track)	5 m @ 25 °C
Travel speed (C-track)	3 m/s @ 25 °C