

**M12 male 0° A-cod. with cable**

TPE 4x22AWG ye UL/CSA. ITC/PLTC 3m

Art.No.: 7700-12021-U040300

Weight: 0.160 kg

Country of origin: US

Model designation: MSAL0-TU04\_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:**

Male straight

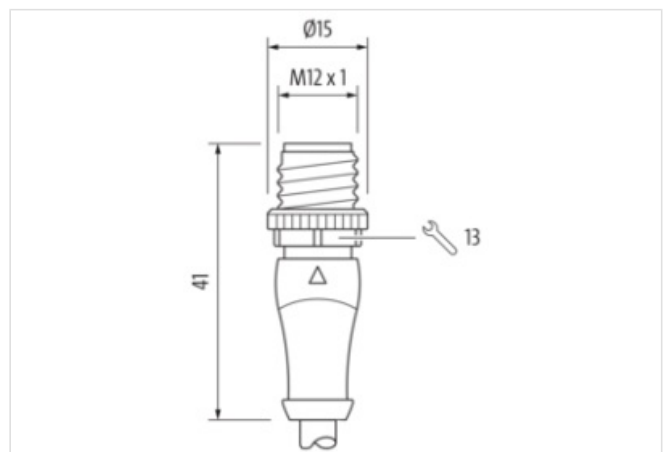
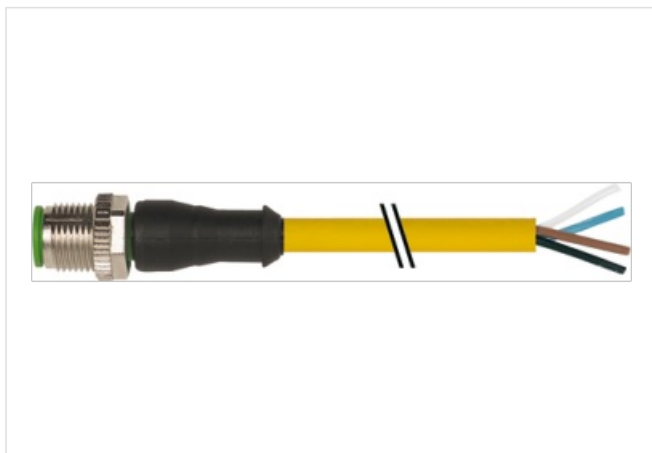
M12, 4-pole

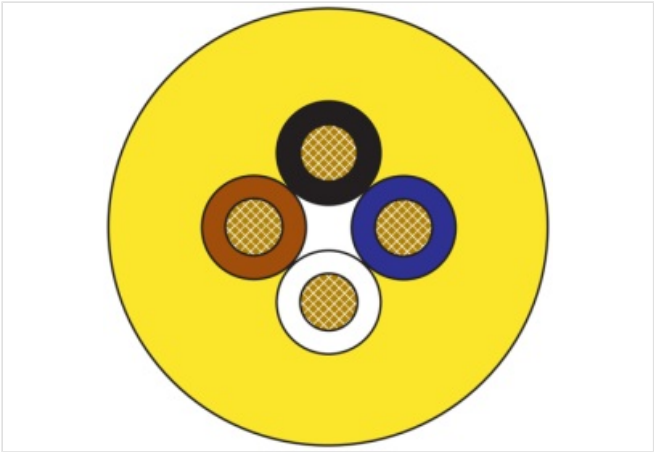
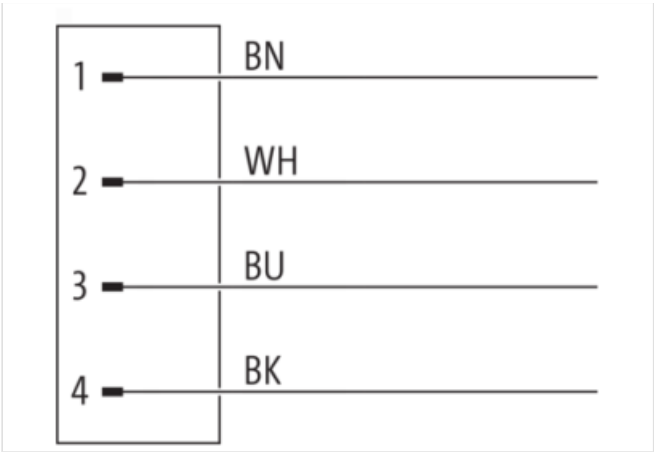
USA

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



Header	
Material short text	MSAL0-TU04_3.0
Cable length	3,00 m
Side 1	
Family construction form	M12
No. of poles	4
Coding	A
Mounting method	inserted, screwed
Tightening torque	0,6 Nm
Width across flats	SW13
suitable for corrugated tube (internal Ø)	10 mm
Material contact	Copper alloy
Coating contact	gold plated
Side 2	
Family construction form	free cable end
Stripping length (jacket)	20 mm
Commercial data	
URL Webshop	<a href="https://shop.murrelektronik.com/7700-12021-U040300">https://shop.murrelektronik.com/7700-12021-U040300</a>

GTIN	4048879740678
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	4048879740678
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

**Device protection | Electrical**

Degree of protection (EN IEC 60529)	IP67, IP66K, IP65
Pollution Degree	3
Rated surge voltage	2,5 kV
Material group (IEC 60664-1)	I

**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	<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	U04
Stranding	1 × 4 wires stranded
Wire arrangement	brown, black, blue, white
Cable weight	45 g/m
Material wire insulation	PVC
Amount wires	4
Outer diameter insulation	1,27 mm
Outer diameter tolerance core insulation	± 0,05 mm
Ingredient freeness wire insulation	lead-free, CFC-free

Amount strands (wire)	19
Diameter of single wires	34 AWG
Conductor crosssection (wire)	22 AWG
Material conductor wire	Stranded copper wire, bare
Outer-diameter (jacket)	5,36 mm
Tolerance outer diameter (sheath)	± 5 %
Material jacket	TPE
Freedom from ingredients (jacket)	lead-free, CFC-free, halogen-free
Conductor resistance (wire)	46.9 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)	4,8 A
Operating temperature min. (static)	-40 °C
Operating temperature max. (static)	105 °C
Operating temperature min. (dynamic)	-20 °C
Operating temperature max. (dynamic)	90 °C
Flame resistance	CSA FT4
Oil resistance	good
Bending radius (fixed)	5 × Outer diameter
Bending radius (dynamic)	10 × Outer diameter
No. of bending cycles (C-track)	10 Mio. @ 25 °C
No. of torsion cycles	3 Mio.
Torsion stress	± 180 °/m