

ÖLFLEX® ROBOT F1 (C)

Shielded, abrasion- and oil-resistant PUR robot cable for high dynamic bending and torsion motions, UL/cUL AWM certified

ÖLFLEX® ROBOT F1 (C) - Screened power and control cable für bending and torsional load in harsh environmental conditions with UL/cUL AWM certification

Info

Simultaneous bending and torsion

Torsion angle up to +/- 180 °/m

AWM certification for USA and Canada



Supplementary automation components from Lapp



Suitable for outdoor use



Cold-resistant



Mechanical resistance



Oil-resistant



Power chain



Interference signals



Torsion-resistant

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Product Management www.lappkabel.de

You can find the current technical data in the corresponding data sheet.

PN 0456 / 02_03.16

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UV-resistant

Benefits

Allows much faster speed and accelerations which increases the economic efficiency of the machines
Increased durability under harsh conditions thanks to robust PUR outer sheath
Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
Wide temperature range for applications in harsh climatic environments
Certified for the USA and Canada for export-oriented machine, appliance and apparatus manufacturers

Application range

Industrial machinery and machine tools
Automated handling equipment
Automotive industry
In power chains or moving machine parts
Inside of dresspacks of buckling arm robots and for use for gantry robots

Product features

Abrasion and notch-resistant
Flame-retardant
High oil-resistance
Flexible at low temperatures
Low-adhesive surface

Norm references / Approvals

UL AWM Style 20940
cUL AWM I/II A/B
UL File No. E213974
Designed for up to 10 million torsion cycles
For use in power chains: Please comply with assembly guideline Appendix T3
For travel distances up to 10 m

Product Make-up

Extra-fine strands, 0.14 mm² - 0.5 mm² made of tinned copper wires, bare above
Core insulation: TPE
Cores (or core pairs) twisted in layers or bundles
Wrapping made of tinned copper wires for versions with individually screened pairs
Wrapping of PTFE tape
Spiral shield of tinned copper wires, version 12 G 1,5 and 18 G 1,5 with screen braiding
PUR outer sheath, colour anthracite

Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC000104 ETIM 5.0 Class-Description: Control cable
Classification ETIM 6:	ETIM 6.0 Class-ID: EC000104 ETIM 6.0 Class-Description: Control cable
Core identification code:	Up to 0.34 mm ² : DIN 47100 cores From 0.5 mm ² : white cores with black numbers, cores of screened pair (2 x 1.0) are marked with no. 5 + 6
Conductor stranding:	Extra-fine wire

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Torsion:	Torsion load max. $\pm 180^\circ/\text{m}$
Minimum bending radius:	Flexible use: 10 x outer diameter Fixed installation: 4 x outer diameter
Nominal voltage:	IEC: up to 0.34 mm ² 250 Vss. 0.5 - 2.5 mm ² U ₀ /U 300/500 V UL/CSA: up to 1.5 mm ² 600 V, from 2.5 mm ² 1000 V
Test voltage:	Up to 0.34 mm ² : 1500 V From 0.5 mm ² : 2000 V
Protective conductor:	G = with GN-YE protective conductor X = without protective conductor
Temperature range:	Flexing: -40 °C to +80 °C Fixed installation: -50 °C to +80 °C

Note

Unless specified otherwise, the shown product values are nominal values at room temperature. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Prices are net prices without VAT and surcharges. Sale to business customers only.

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Article number	Number of cores and mm ² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
0029653	3 x 2 x 0,25	8.0	38	100
0029654	25 x 0,25	13.8	115	280
0029655	2 x 0,34	5.2	18	54
0029656	3 x 0,34	5.4	20	56
0029657	4 x 0,34	6.6	28	72
0029658	5 x 2 x 0,34	10.2	69	158
Numbered Cores				
0029689	12 G 1,5	15.4	230	380
0029690	18 G 1,5	18.5	340	550
0029664	4 G 1,5	8.8	75.1	120
0029665	4 G 2,5	10.3	116	200
0029691	4 G 1,5 + (2 x 1,0)	11.0	116	213
0029692	4 G 2,5 + (2 x 1,0)	12.0	150	270

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