



ÖLFLEX® SERVO 3D 7DSL

Low capacitive hybrid servo cable with PUR outer sheath for three-dimensional robotic application - certified

LAPP KABEL STUTTGART ÖLFLEX® SERVO 3D 7DSL CE



Info

- One cable solution for servo drives
- Suitable for Hiperface DSL® and SCS open link interfaces
- 3D - Simultaneous bending and torsion

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Only one connection line between drive and motor-feedback system. Instead of the encoder cable a specific integrated data pair takes over the signalling.
- Less cables and reduced connection costs
- Space and weight savings thanks to hybrid cable design
- 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

Application range

- Connecting cable between servo controller and motor
- In industrial robots, moving machine parts or drag chains
- Automated handling equipment
- Particularly in wet areas of machine tools and transfer lines
- Inside of dresspacks of buckling arm robots and for use for gantry robots
- For indoor and outdoor use

Product features

- High oil-resistance
- Abrasion and notch-resistant
- Flammability:
UL/CSA: VW-1, FT1
IEC/EN: 60332-1-2
- Flexible at low temperatures
- Low-capacitance design

Norm references / Approvals

- UL AWM Style 21223
cRU AWM I/II A/B FT1
- UL File No. E63634
- Designed for up to 5 million torsion cycles
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine-wire, bare copper conductor (power cores and control pair) and 19-wire, tinned copper conductor (data pair)
- Core insulation: Polypropylene (PP) respectively fluorinated ethylene propylene (FEP)
- Power cores with screened control pair and data pair twisted together
- Special tape wrapping
- Spiral shield made of tinned copper wires
- Wrapping of PTFE tape
- PUR outer sheath, black (similar RAL 9005)

Technical data

	Classification ETIM 5/6 ETIM 5.0/6.0 Class-ID: EC000104 ETIM 5.0/6.0 Class-Description: Control cable
	Core identification code Power cores: black with marking U/ L1/C/L+; V/L2; W/L3/D /L-; GN/YE protective conductor Data pair: white, blue Control pair: black, white
	Conductor stranding Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6 DSL data pair: 19-wired
	Torsion Torsion load max. $\pm 180^\circ/\text{m}$
	Minimum bending radius Moved: 10 x outer diameter Fixed installation: 5 x outer diameter
	Nominal voltage Power and control cores: IEC: U0/U: 600/1000 V UL: 600 V Data pair UL: 600 V
	Test voltage Power and control: 4 kV Data pair: 1kV
	Protective conductor G = with GN-YE protective conductor
	Temperature range Flexing: -40°C to $+80^\circ\text{C}$ Fixed installation: -50°C to $+80^\circ\text{C}$

Article number	Number of cores and mm ² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 3D 7DSL				
1023351	4 G 0,5 + (2 x 0,25) + (2 x 26AWG)	9.4	70	130
1023352	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13.3	152	276
1023353	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.4	195	326

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

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Similar products

- ÖLFLEX® SERVO 7DSL refer to main catalogue 2020/21
- ÖLFLEX® SERVO FD 7DSL refer to main catalogue 2020/21
- ÖLFLEX® SERVO FD 70CS refer to page 13

Accessories

- Protective cable conduit systems and cable carrier systems refer to main catalogue 2020/21
- Circular connectors refer to main catalogue 2020/21