ÖLFLEX® SERVO 3D 7DSL

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

ÖLFLEX® SERVO 3D 7DSL - hybrid cable for three-dimensionally moved robotic applications, UL/cUL AWM.

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

Supplementary automation components from Lapp

Suitable for outdoor use

Cold-resistant

Mechanical resistance

Oil-resistant

Power chain

Interference signals

Torsion-resistant

⚫ LAPP

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UV-resistant

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:	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:	Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-;

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	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. ± 180 °/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°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.

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

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

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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

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
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

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