

U.I. Lapp GmbH	<b>PRODUCT INFORMATION</b>	
	<b>ÖLFLEX® SERVO FD 7DSL</b>	05.11.2015

Low capacitive hybrid servo cable with PUR outer sheath for highly dynamic power chain application - certified ÖLFLEX® SERVO FD 7DSL - hybrid cable for permanently moved power chain applications, UL/cUL AWM.



Single halogen-free cable



Mechanical resistance



Oil-resistant



Power chain



Interference signals



UV-resistant

### Info

OCS - One Cable Solution

Suitable for Hiperface DSL® motor-feedback systems

Extended Line for heavy duty in power chain applications

### Application range

Power drive systems in automation engineering

Connecting cable between servo controller and motor

In power chains or moving machine parts

For use in assembling & pick-and-place machinery

Particularly in wet areas of machine tools and transfer lines

### 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 an integrated DSL 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

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### Product Make-up

Extra-fine-wire, bare copper conductor (power cores and control pair) and 19-wire, tinned copper conductor (signal pair)  
Core insulation: polypropylene (PP)  
Individual design depending on the item: power cores without or with one screened control pair and one DSL signal pair twisted together  
Non-woven wrapping  
Tinned-copper braiding  
PUR outer sheath, orange (RAL 2003)

### Norm references / Approvals

UL AWM Style 21223  
cRU AWM I/II A/B FT1  
UL File No. E63634  
For use in power chains: Please comply with assembly guideline Appendix T3

### Product features

Dynamic power chain performance:  
Acceleration up to 50 m/s<sup>2</sup>.  
Travel speeds up to 5 m/s.  
Travel distances up to 20m.  
Maximum DSL transmission length: 100m  
Flammability:  
UL/CSA: VW-1, FT1  
IEC/EN: 60332-1-2  
Halogen-free materials  
Low-capacitance design  
Oil-resistant

### Remark

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.  
Please find our standard lengths at: [www.lappkabel.de/en/cable-standardlengths](http://www.lappkabel.de/en/cable-standardlengths)  
HIPERFACE DSL® is a registered trademark of SICK AG  
Photographs are not to scale and do not represent detailed images of the respective products.

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### Technical Data

Core identification code:	Power cores: black with marking U/L1/C/L+ V/L2 W/L3/D /L- GN/YE protective conductor Signal pair: white, blue Control pair (optional): black with white numbers 5 + 6
Classification:	ETIM 5.0 Class-ID: EC000104 ETIM 5.0 Class-Description: Control cable
Conductor stranding:	Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6 DSL pair: 19-wired
Minimum bending radius:	For flexible use: 7.5 x outer diameter Fixed installation: 5 x outer diameter
Nominal voltage:	Power and control: IEC: U <sub>0</sub> /U: 600/1000 V UL: 1000 V Signal pair: 300 V
Test voltage:	Power and control: 4 kV Signal pair: 1kV
Protective conductor:	G = with GN-YE protective conductor
Temperature range:	Flexing: -40°C to +90°C (UL: +80°C) Fixed installation: -50°C to +90°C (UL: +80°C)

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Part number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1023274	4 G 1 + (2 x 0,75) + (2 x 22AWG)	11,8	133.0	202
Hybrid cables for power chain applications				
1023275	4 G 1,5 + (2 x 22AWG)	11,2	115.0	198
1023276	4 G 2,5 + (2 x 22AWG)	12,6	160.0	269
1023277	4 G 4 + (2 x 22AWG)	14.0	218.0	343
1023278	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13,2	152.0	256
1023279	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.0	195.0	313
1023280	4 G 4 + (2 x 1,0) + (2 x 22AWG)	15,8	268.0	407