

11101202	<b>DATA SHEET</b>	 <b>LAPP</b>
Valid from: 18.03.2019	<b>ÖLFLEX® DC SERVO 700 3G2.5+2x2.5+(2x1)+Cat 6A</b>	

## Application

ÖLFLEX® DC100 HYBRID cable are connecting cables for occasional flexible use and fixed installation subject to medium mechanical load conditions.

They are among others designed for use in dry, damp and wet areas.

They are suitable for outdoor use if the indicated temperature range is observed.

They are largely resistant to acids, alkalis and oils at room temperature.

They are suitable for occasional, non-automated movements. The maximum tensile load is 15 N/mm<sup>2</sup> of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

Application range: connection cable for electrical systems which are operated with direct voltage.

## Design:

### Power cores

Conductor	bare copper, fine wire strand in acc. with IEC 60228 resp. VDE 0295, Class 5
Core insulation	PVC compound TI2 acc. to EN 50363-3 resp. VDE 0207-363-3 with increased requirements acc. to Lapp specification
Core identification	coloured cores: red (L+); white (L-); GNYE

### Signal pair 2x2.5

Conductor	bare copper, fine wire strand in acc. with IEC 60228 resp. VDE 0295, Class 5
Core insulation	PVC compound TI2 acc. to EN 50363-3 resp. VDE 0207-363-3 with increased requirements acc. to Lapp specification
Core identification	coloured cores: black / grey
Pair	Cores twisted to pair.

### Screened pair (2x1)

Conductor	bare copper, fine wire strand in acc. with IEC 60228 resp. VDE 0295, Class 5
Core insulation	PVC compound TI2 acc. to EN 50363-3 resp. VDE 0207-363-3 with increased requirements acc. to Lapp specification
Core identification	coloured cores: violet / pink
Pair	cores twisted to pair wrapping: aluminium-laminated foil (metal outside) shield: tinned copper braid wrapping: polyester tape wrapping

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#### **Cat 6A:**

Conductor	bare copper wire, 7x0.16 (26AWG)
Core insulation	foam-skin polyolefin
Core identification	coloured cores: white/blue; white/orange; white/green; white/brown;
Pairs	cores twisted to pairs
Pair screening	aluminium-laminated foil (metal outside)
Stranding	4 screened pairs stranded to bundle
Shield	tinned copper braid
Wrapping	polyester tape wrapping

#### **Cable design:**

Stranding	cores, pairs and Cat6A are stranded together
Wrapping	fleece tape
Outer sheath	PVC compound TM2 acc. to EN 50363-4-1 resp. VDE 0207-363-4-1 Colour: black, similar RAL 9005

## **Electrical properties**

#### **Power cores, signal pairs:**

Conductor resistance	acc. to EN 60228
Specific insulation resistance (20°C)	> 20 G Ω x cm
Nominal voltage	conductor-earth: 750 V DC conductor-conductor: 1500 V DC
Operating voltage	conductor – earth: max. 900 V DC conductor – conductor: max. 1800 V DC
Test voltage	core / core: 4000 V AC core / screen: 2000 V AC

#### **Cat 6A:**

Conductor resistance (26AWG)	max. 145 Ω/km
Specific insulation resistance (20°C)	> 5 G Ω x km
Operating peak voltage	125 V (not for power purposes)
Test voltage	core / core: 750 V AC core / screen: 750 V AC
Characteristic impedance	Nominal 100 Ω at 100 MHz acc. to IEC 61156-6

Electrical requirements and transmission properties according to IEC 61156-6, Cat 6A.

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## Mechanical and thermal properties

Min. bending radius	occasional flexing: 20 x cable diameter fixed installation: 6 x cable diameter
Temperature range	occasional flexing: -5 °C up to +70 °C max. conductor temp. fixed installation: -40 °C up to +80 °C max. conductor temp.
Flammability	flame retardant acc. to IEC 60332-1-2 resp. VDE 0482-332-2-1
UV-resistance	acc. to EN 50618 (VDE 0283-618) EN 50620 (VDE 0285-620) EN ISO 4892-2, method A (change of colour allowed)
Ozone resistance	acc. to EN 50396 resp. VDE 0473-396, method B
Tests	acc. to IEC 60811 resp. VDE 0473-811, VDE 0472, EN 50395, EN 50396
EU Directives	<p>These cables are conform to multiple different EU Directives such as:</p> <ul style="list-style-type: none"> <li>• 2014/35/EU (Low Voltage Directive) for power cores and signal pairs</li> <li>• 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) for CAT 6A .</li> </ul>

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