# U.I. Lapp GmbH DATASHEET ÖLFLEX® CONTROL TM DATASHEET 281618 14.11.2013

Wide application range due to multiple approvals

Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)

LAPP KABEL STUTTGART ÖLFLEX® CONTROL TM (UL) TC-ER or MTW 90°C 600V OIL RES II WTTC 1000V 90°C CSA AWM FT4 (6







Flame-retardant



Cold-resistant



Mechanical resistance



Oil-resistant



Torsion-resistant

#### Info

Torsion resistant for drip loops

Wide application range (NFPA 70/NEC)/ compliance with NFPA 79 for industrial machinery

## **Application range**

Industrial machinery; plant engineering

Machine tools compliant with UL MTW (Machine Tool Wiring)

TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)

Wind turbines: USA Wind Turbine Tray Cable (WTTC)

Class 1, Div. 2 in accordance with NEC "National Electrical Code" Art. 336, 392, 501

## Design

Fine-wire strand made of bare copper wires Insulation: PVC with nylon sheath (PA skin)

Outer sheath made of special PVC compound, grey

#### Norm references / Approvals

Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than thespecified nominal value. Cable type certifications UL MTW, TC-ER, WTTC 1000 V, BUS DROP, c(UL) Type TC, CIC FT4, CSA AWM I/II A/B FT4, UL AWM style 20886

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### **Product features**

Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test

Oil-resistant according to UL OIL RES I & II

Water-resistant, UL Wet Approval 75 °C

Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

#### Remark

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

Copper price basis: EUR 150/100kg. 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 610 m drum or 8 x 76 m coils).

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

\*OD = Outer diameter

### **Technical Data**

Number of cores and mm² per conductor: 18 G 1,5

Outer diameter (mm): 16,4

Copper index (kg/km): 259

Weight (kg/km): 403

Core identification code:

Black with white numbers

Classification: ETIM 5.0 Class-ID: EC000104

ETIM 5.0 Class-Description: Control cable

Conductor stranding: Fine-wire, bare copper strand

Torsion movement in WTG: TW-0 & TW-2, refer to Appendix T0

Minimum bending radius: Static/Occ. moved: 5/15xOD\*

Nominal voltage: UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V

UL/CSA: 1000 V (AWM) VDE U0 /U: 600/1000 V

Test voltage: 2000 V

Protective conductor: G = with GN-YE protective conductor

X = without protective conductor

Temperature range: -40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)