

U.I. Lapp GmbH	<b>DATASHEET</b>	
	<b>ÖLFLEX® CONTROL TM</b>	<b>281609</b> <b>14.11.2013</b>

Wide application range due to multiple approvals

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



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 mm<sup>2</sup> 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 the specified 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](http://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 mm <sup>2</sup> per conductor:	9 G 1,5
Outer diameter (mm):	11,9
Copper index (kg/km):	129.6
Weight (kg/km):	247
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)

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