

ÖLFLEX® CHAIN TM

Highly flexible control cable with TC-ER, MTW, WTTTC or CIC/TC listing acc. (UL) or c(UL) for North America

ÖLFLEX® FD CHAIN TM - Power and control cable for versatile use in power chains with UL listing and UL/cUL AWM certification.

Info

Core Line Performance - Medium to increased travel lengths or acceleration

The normative multi-talent according NEC and NFPA 79

Problem-free use in cable trays,
industrial machines or wind turbines



Suitable for outdoor use



Flame-retardant



Cold-resistant



Oil-resistant



Power chain



UV-resistant

Benefits

Multi-standard certification offers universal application range, reduces part varieties and saves costs

TC-ER and MTW listings enable open wiring on cable trays as well as the usage for industrial machines with only one cable

Resistant to contact with many mineral oil-based lubricants and other chemical media

Ideal for export-oriented machinery and equipment manufacturers thanks to high normative acceptance by the North American NEC (National Electrical Code)

Under consideration of the temperature range also suitable for flexible outdoor use

Last Update (15.05.2025)

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Product Management www.lappkabel.de

You can find the current technical data in the corresponding data sheet.

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Application range

In power chains or moving machine parts
Static open wiring on and between cable tray and industrial machine acc. NEC
Industrial machinery and machine tools
Wind turbine engineering
Linear robots, automated handling equipment

Product features

High oil-resistance, according to UL OIL RES I and UL OIL RES II
Flame-retardant according to CSA FT4
UL Vertical-Tray Flame Test
Sunlight Resistant; Direct Burial
Water-resistant, UL 75°C WET rating

Norm references / Approvals

Certifications USA (UL) & UL AWM:
TC-ER Tray Cable-Exposed Run
MTW Machine Tool Wire "Constant Flexing"
WTTC Wind Turbine Tray Cable
PLTC-ER Power Limited Tray Cable
ITC Instrumentation Tray Cable
DP-1 Data Processing Cable
AWM Style 20886
Certifications Canada c(UL) & CSA AWM:
CIC/TC Control Instrumentation Cable/Tray Cable FT4, AWM I/II A/B FT4
Class 1 Division 2 per NEC Article 501
For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

Extra-fine wire strand made of bare copper
Core insulation: PVC with nylon skin
Cores twisted in layers in short lay lengths
Non-woven wrapping
Outer jacket: Specially formulated thermoplastic polymer
Sheath colour: black (similar RAL 9005)

Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC000104 ETIM 5.0 Class-Description: Control cable
Core identification code:	Black with white numbers
Conductor stranding:	Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
Torsion movement in WTG:	TW-0 & TW-2, refer to Appendix T0
Minimum bending radius:	Flexing: up from 7.5 x outer diameter Fixed installation: 4 x outer diameter
Nominal voltage:	UL/CSA: 600 V (TC, MTW, CIC), 1000 V (WTTC, AWM) IEC: U ₀ /U 300/500 V
Bending cycles & operation parameters:	See Selection Table A2-1 in the appendix of our online catalogue
Test voltage:	2000 V

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Protective conductor:

G = with GN-YE protective conductor

Temperature range:

Fixed installation:

-40°C (-25°C UL TC) to +90°C (UL TC, MTW, according AWM +105°C)

Flexing:

-25°C to +90°C (according UL MTW)

Note

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

Copper price basis: EUR 150/100 kg. 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 500 m drum or 5 x 100 m coils).

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

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

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Article number	Number of cores and mm ² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
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8718030	3 G 1.0	7.8	29.8	66
8718040	4 G 1.0	8.6	38.7	82
8718050	5 G 1.0	9.3	49.11	95
8718070	7 G 1.0	10.7	68.452	125
8718120	12 G 1.0	12.3	117.56	210
8718180	18 G 1.0	15.4	175.595	308
8718250	25 G 1.0	17.8	244.048	414
8716030	3 G 1.5	8.6	43.155	92
8716040	4 G 1.5	9.5	58.036	112
8716050	5 G 1.5	10.3	72.917	134
8716070	7 G 1.5	12	101.19	180
8716120	12 G 1.5	14.7	166.667	311
8716180	18 G 1.5	17.2	260.417	443
8716250	25 G 1.5	20	360.119	621
8714040	4 G 2.5	10.6	96.73	180
8714070	7 G 2.5	14.5	168.155	286
8712040	4 G 4.0	12.4	154.762	295
8710040	4 G 6.0	15.2	230.65	397

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