Application

ÖLFLEX® FD 891 CY cables are high flexible, oil-resistant cables for power chains for the European, Northern American and Canadian market.
They are designed for flexible use as well as for fixed installation subject to medium mechanical load conditions.
They are also suitable for use in dry, damp or wet areas.
They are suitable for outdoor use if the indicated temperature range is observed.
ÖLFLEX® FD 891 CY are increased resistant to oils and at room temperature largely resistant to acids and alkalis.
They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm^2 of conductor cross-section during installation and operation. Compulsory guidance is not permitted.
The screening braid protects against interference from electrical fields.

Application range: power chains or moving machine parts, suitable for use in measuring, control and regulating circuits, assembly lines, production lines, in all kinds of machines, machine tools, plant engineering

USE according to UL:PVC sheathed cables for external interconnection or internal wiring of electronic equipment appliances where exposed to oil at a temperature not exceeding 80°C (80°C oil rating)
USE according to CSA: Cables for internal and external interconnection with or without mechanical use

Design

Design	acc. to UL AWM Style 21098, CSA C22.2 No. 210-15 and based on EN 50525-2-51 resp. VDE 0285-525-2-51
Approvals	RU AWM 758, Style 21098 (File No. E63634) CSA AWM I A/B, II A/B
Conductor	extra fine wire strands of bare copper acc. to IEC 60228 resp. VDE 0295, class 6
Core insulation	PVC compound (UL/CSA 90°C rating)
Core identification	acc. to VDE 0293-1, with or without GN/YE ground conductor black cores with white numbers acc. to DIN EN 50334 resp. VDE 0293-334
Inner sheath	PVC compound (UL/CSA 90°C rating) colour: black, similar RAL 9005
Screen	braid of tinned copper, coverage = 85% (nominal value)
Outer sheath	PVC compound (UL/CSA 90°C rating) with increased requirements acc. to LAPP specification colour: black, similar RAL 9005

Electrical properties

Nominal voltage	IEC U_0 / U:	300 / 500 V
	UL/CSA:	600 V
Test voltage	core / core:	4000 V AC
	core / screen:	4000 V AC

Mechanical and thermal properties

Min. bending radius	flexing:	up from 7.5 x cable diameter
	fixed installation:	4 x cable diameter
Bending cycles and power chain operation parameters	See Selection Table A2-1 in the appendix of our online catalogue For use in power chains: Please comply with assembly guideline Appendix T3	

Temperature range	flexing (VDE): -5 °C up to +70 °C max. conductor temperature flexing (UL/CSA): -5 °C up to +90 °C max. conductor temperature fixed installation (VDE): -40 °C up to +80 °C max. conductor temperature fixed installation (UL/CSA): up to +90 °C max. conductor temperature
Flammability	flame retardant acc. to IEC 60332-1 resp. VDE VDE 0482-332-1-2 UL: vertical flame test VW-1 CSA: FT1
Oil resistance	acc. to EN 50363-4-1 resp. VDE 0207-363-4-1, TM5 UL: 80°C rating acc. to UL 758, CSA: CSA C22.2 No. 210-15
UV-resistance	acc. to EN 50525-1 (VDE 0285-525-1) cable with black sheath are suitable for permanent outdoor use. UV-resistant acc. to EN ISO 4892-2-2013, method A (change of colour allowed)
Tests	acc. to IEC 60811 resp. VDE 0473-811, EN 50395, EN 50396 UL 1581 und CSA C22.2
EU Directives	These cables are conform to the EU-Directives 2014/35/EU (Low Voltage Directive)