Application

ÖLFLEX® FD 891 P cables are high-flexible, oil-resistant cables for power chains with an outer sheath of Polyurethane for the European, North American and Canadian market.
They are designed for flexible use as well as for 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.
ÖLFLEX® FD 891 P cables are increased resistant to oils and at room temperature largely resistant to acids and alkalis.
The outer sheath withstands high mechanical stresses, in particular abrasion and dragging. It is also cut proof and resists microbes and hydrolysis.
They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

Application range: power chains or moving machine parts, machine tools and transfer lines, suitable for use in measuring, control and regulating circuits, plant engineering

USE according to UL: PUR sheathed cables for external interconnection of electronic equipment
USE according to cRU: Cables for internal and external interconnection with or without mechanical use

Design

Design	acc. to UL AWM Style 20234, CSA C22.2 No. 210-15 and based on EN 50525-2-21
Certification	UL AWM 758, Style 20234 (File No. E63634) cRUus AWM I A/B, II A/B (File No. E63634)
Conductor	extra fine wire strands of bare copper acc. to IEC 60228 resp. EN 60228, class 6
Insulation	PVC compound (UL/CSA 80°C rating)
Core identification code	acc. to VDE 0293-1, with or without GN/YE ground conductor black cores with white numbers acc. to EN 50334
Outer sheath	TPU compound (UL/CSA 80°C rating) resp. TPU based on EN 50363-10-2 colour: black, similar RAL 9005

Electrical properties at 20 °C

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

Mechanical and thermal properties

Minimum bending radius	flexing: up from 7.5 x outer diameter fixed installation: 4 x outer diameter
Temperature range	flexing (IEC): -5 °C up to +70 °C max. conductor temperature flexing (UL/CSA): -5 °C up to +80 °C max. conductor temperature fixed installation (IEC): -40 °C up to +80 °C max. conductor temperature fixed installation (UL/CSA): up to +80 °C max. conductor temperature
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
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: vertical flame test VW-1 CSA: FT1
UV resistance	acc. to EN 50525-1 cables with black sheath are suitable for permanent outdoor use. acc. to EN 50618 acc. to EN 50620 acc. to EN ISO 4892-2-2013, method A (change of colour allowed)
Oil resistance	acc. to EN 50363-10-2
Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396 UL 1581 und CSA C22.2

General requirements	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive). A part of these cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).