Application

ÖLFLEX® CHAIN 896 P cables are high-flexible, oil-resistant, halogen free, low capacitance control cables with an outer sheath of Polyurethane for the European, North American and Canadian market.
They are among others designed for use in dry, damp and wet conditions. Outdoor use: They may only be installed considering the indicated temperature range.
ÖLFLEX® CHAIN 896 P cables are increased oil resistant and at room temperature widely resistant to acids and caustic solutions. The outer sheath is resistant to high mechanical load, particularly to abrasion and scouring, is cut resistant, microbe-proof and hydrolysis resistant. They are especially suitable for increased requirements (Extended Line) in power chains and in permanently moved machine parts. 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:
Applications in automation engineering, power circuits in industrial machines, in power chains or moving machine parts, for use in assembling & pick-and-place machinery, particularly in wet areas of machine tools and transfer lines.

Use acc. to : External interconnection of electronic equipment.
Use acc. to : Internal or external interconnection with or without mechanical load conditions.

Design

Design	acc. to UL AWM Style 20234, UL 758, CSA 22.2 No. 210 based on EN 50525-2-21
Certification	: AWM Style 20234, UL 758 (File No. E63634) AWM I/II A/B (File No. E63634) ◁ VDE-REG 8661 ▷ (≥ 1.5 mm²) Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	extra fine wire strands of bare copper acc. to IEC 60228 resp. EN 60228, Class 6
Core insulation	Polypropylen- based compound
Core identification	acc. to VDE 0293-1, with or without GN/YE ground conductor black cores with white numbers acc. to EN 50334
Outer sheath	TPU, Polyurethane-compound TMPU acc. to EN 50363-10-2 UL 758, CSA AWM C22.2 No.210 colour: Black, similar RAL 9005

Electrical properties at 20 °C

Nominal voltage	EN U_0 / U: 600/1000 V
Rated voltage	UL/CSA:1000 V
Test voltage	core / core: 4000 V AC

Mechanical and thermal properties

Min. bending radius	flexing: up from 7.5 x outer diameter (up to 16 mm²) up from 10 x outer diameter (from 25 mm²) fixed installation: 4 x outer 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 (EN): -40 °C up to +90 °C max. conductor temp. flexing (UL/CSA): up to +80 °C max. conductor temp.

	fixed installation (EN): -50 °C up to +90 °C max. conductor temp. fixed installation (UL/CSA): up to +80 °C max. conductor temp.
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Vertical flame test VW-1 acc. to UL 1581, Section 1080 CSA: FT1 acc. to CSA C22.2 No. 2556 § 9.3
Halogen-free	acc. to IEC 60754-1 resp. EN 60754-1
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, method A (change of colour allowed)
Ozone resistance	acc. to EN 50396, met. B
Oil resistance	acc. to EN 50363-10-2
MUD resistance	MUD resistant acc. to IEC 60092-360, Annex C+D
Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396, UL 1581 and CSA C22.2 No 210
General requirements	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive) 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).