


1027900	<b>DATA SHEET</b>	
valid from: 01.01.2019	<b>ÖLFLEX® CHAIN 819 CP</b>	

## Application

ÖLFLEX® CHAIN 819 CP cables are high flexible control cables for power chains for the European, Northern American and Canadian market, for flexible use and fixed installation under light to medium mechanical load conditions.

ÖLFLEX® CHAIN 819 CP cables are increased resistant to oils and at room temperature largely resistant to acids and alkalis.

They are especially suitable for basic requirements (Basic Line) in power chains and in permanently moved machine parts.

They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm<sup>2</sup> 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, measuring, control and regulation circuits, wiring of machines, tools, devices, appliances and control cabinets.

USE according to UL: PUR sheathed cables for internal wiring of electronic equipment and appliances.

USE according to cRU: Cables for internal or external interconnection with or without mechanical abuse.

## Design

Design	acc. to UL AWM Style 21576, CSA C22.2 No. 210-15 based on EN 50525-2-21 resp. VDE 0285-525-2-21 and EN 50525-2-51 resp. VDE 0285-525-2-51
Certification	UL AWM Style 21576 (File No. E63634) cRU AWM I A/B, II A/B (File No. E63634)
Conductor	fine wire strands of bare copper, acc. to IEC 60228 resp. VDE 0295, Class 5
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 DIN EN 50334 resp. VDE 0293-334
Taping	soft fleece tape
Screen	braid of tinned copper wires, coverage = 85% (nominal value)
Outer sheath	LAPP PU-Special Blend Colour: black, similar RAL 9005


## Electrical properties at 20°C

Specific volume resistivity	> 20 GΩ x cm
Transfer impedance	max. 250 mΩ/m (at 30 MHz)
Rated voltage	U <sub>0</sub> / U: 300 / 500 V UL/CSA: 1000 V
Test voltage	core / core: 4000 V AC core / screen: 2000 V AC

## Mechanical and thermal properties

Minimum bending radius	flexing: up from 10 x cable diameter fixed installation: 4 x cable diameter
Temperature range	flexing: VDE: -5°C up to +70°C max. conductor temp. UL: -5°C up to +80°C max. conductor temp. fixed installation: VDE: -40°C up to +70°C max. conductor temp. UL: up to +80°C max. conductor temp.
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
Torsional stress	TW-0 (5000 cycles at ≥ +5°C) TW-1 (2000 cycles at ≥ -20°C) ± 150 °/m at 1 revolution per minute
Flammability	flame retardand acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2 UL: horizontal flame CSA: FT2
UV resistance	acc. to EN 50620 (VDE 0285-620) EN ISO 4892-2-2013, method A (change of colour allowed)
Oil resistance	acc. to EN 50363-4-1 resp. VDE 0207-363-4-1, TM5
Tests	acc. to IEC 60811 resp. VDE 0473 part 811, EN 50395, EN 50396, UL 1581 and CSA C22.2
General requirements	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive)

Creator: LABU / PDC	Document: DB1027900EN	Page 1 of 2
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