

1026791	DATA SHEET	
valid from: 2023-02-07	ÖLFLEX® CHAIN PN	

Application

ÖLFLEX® CHAIN PN are high flexible cables for power chains for the European, Northern American and Canadian market for flexible use and fixed installation for light and medium mechanical use. They are designed for use in dry, damp and wet rooms.
 Outdoor use: Taking into account the temperature range, the black cables are suitable, the grey ones only with the use of UV protection.
 Continuous busy movements, usage of these cables in moving cable carriers or on motor drum guidance or under a strain of more than 15 N/mm² conductor cross-section is not allowed. They are specially designed for use in PROFINET energy supply.
 Application range: Machine tools, conveyor lines and data processing.
 USE according to UL: PVC sheathed cables for external interconnection or internal wiring of electronic equipment.
 USE according to cRU: Cables for internal or external interconnection with or without mechanical use.

Design

Design	acc. to UL AWM Style 20886, CSA C22.2 No. 210-15 and based on EN 50525-2-51
Certification	 AWM Style 20886 (File No. E63634)  AWM I A/B, II A/B (File No. E63634) EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper acc. to IEC 60228 resp. EN 60228, Class 5
Insulation	PVC compound (EN: 90 °C; UL/CSA: 80 °C)
Core identification code	4 cores: brown (L1), blue (N1), black (L2), white (N2) 5 cores: brown (L1), blue (N1), black (L2), white (N2), pink (Functional grounding)
Stranding	cores are stranded in layers with short lay length, wrapping with fleece on the outer layer
Outer sheath	PVC compound (EN: 90 °C; UL/CSA: 80 °C) Colour: black, similar RAL 9005 (without functional grounding) silver grey, similar RAL 7001 (with functional grounding)

Electrical properties at 20 °C

Nominal voltage	EN: U ₀ /U: 300/500 V
Rated voltage	UL/CSA: 1000 V
Test voltage	EN: C/C: 1500 V UL/CSA: C/C: 3000 V

Mechanical and thermal properties

Minimum bending radius	flexing: chains in self-supporting non-gliding arrangements: 10 x outer diameter in chains in gliding arrangements: 12 x outer diameter fixed installation: 4 x outer diameter
Temperature range	flexing (EN): 0 °C up to +90 °C max. conductor temp. flexing (UL/CSA): up to +80 °C max. conductor temp. fixed installation (EN): -40 °C up to +90 °C max. conductor temp. fixed installation (UL/CSA): up to +80 °C max. conductor temp.
Number of cycles	≥ 2 mio. cycles
Travel distance	up to 10 m
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 retardant in acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Vertical flame test, VW-1 CSA: FT1
Weather and UV resistance	acc. to EN 50525-1 cables with black outer sheath are suitable for permanent outdoor use

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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).

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