0026651	DATA SHEET	LAPP
valid from: 07.08.2025	ÖLFLEX® FD 90 CY	

Application

ÖLFLEX® FD 90 CY cables are DESINA compliant screened high-flexible, sheathed cables 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 also suitable for use in dry, damp or wet areas. If using outdoors, observe the indicated temperature range and use with UV protection.
ÖLFLEX® FD 90 CY cables are increased oil resistant and at room temperature largely resistant to acids and alkalis.
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.
The screening braid protects against interference from electrical fields.

Application range: In power chains or moving machine parts, for internal wiring of electric and electronic equipment in switch cabinets, this cable can substitute screened multi-core motor cables where space requirements or minimum bending radius cause problems, specially designed for power circuits of servomotors driven by frequency converters, test systems in the automotive industry, vehicles and stationary fuel cell systems

USE acc. to : Internal wiring or external interconnection of electronic equipment.
USE acc. to CSA resp. : Cables for internal wiring or external interconnection with or without mechanical abuse.

Design

Design	acc. to UL AWM Style 10107, UL 758 acc. to CSA C22.2 No. 210-15 based on VDE 0250
Certification	AWM Style 10107, UL 758 (File No. E63634) CSA: < 120 mm²: AWM I A/B, II A/B, C22.2 No. 210-15 : > 150 mm²: AWM I A/B, II A/B, C22.2 No. 210-15 (File No. E63634)
Conductor	extra fine wire strands of bare copper, acc. to IEC 60228 resp. EN IEC 60228, class 6 conductor wrapped with a fleece tape
Insulation	PVC compound acc. to UL/CSA 90°C rating
Core identification code	BK or GN/YE
Wrapping	wrapped with a fleece tape
Screen	braid of tinned copper wires, coverage = 85 % (nominal value)
Outer sheath	PVC compound acc. to UL/CSA 90°C rating, increased oil resistance colour: orange, similar RAL 2003

Electrical properties at 20 °C

Specific volume resistivity	> 20 G Ω x cm
Nominal voltage	EN U_0/U: 600/1000 V
Rated voltage	UL/CSA: 600 V
Test voltage	4000 V AC

Mechanical and thermal properties

Minimum bending radius	flexing: up from 7.5 x outer diameter fixed installation: 3 x outer diameter
Temperature range	flexing (EN): -5 °C up to +70 °C max. conductor temp. Flexing (UL/CSA): -5 °C up to +90 °C max. conductor temp. Fixed installation(EN): -40 °C up to +80 °C max. conductor temp. Fixed installation (UL/CSA): up to +90 °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
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, FT2 acc. to UL 1581, section 1100 CSA: FT1 acc. to CSA C22.2 No. 2556 § 9.3
Oil resistance	EN: acc. to EN 50363-4-1, TM5 UL: 80 °C rating acc. to UL 758 CSA: acc. to CSA C22.2 No. 210-15

Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396 UL 1581 and CSA C22.2 No 2556
General requirements	These cables are conform to the EU-Directives 2014/35/EU (Low Voltage Directive)
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).