

0026600	DATA SHEET	
valid from: 07.08.2025	ÖLFLEX® FD 90	

Application

ÖLFLEX® FD 90 cables are 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. They are suitable for permanent outdoor use if the indicated temperature range is observed. ÖLFLEX® FD 90 cables are increased resistant to oils 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.

Application range: power chains or moving machine parts, for internal wiring of electric and electronic equipment in switch cabinets, this cable can substitute multi-core power 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 mm ² : AWM I A/B, II A/B, C22.2 No. 210-15  > 150 mm ² : 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	black or GN/YE acc. to VDE 0293-1
Outer sheath	PVC compound acc. to UL/CSA 90°C rating, increased oil resistance colour: black, similar RAL 9005

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
UV resistance	acc. to EN 50525-1 cable with black sheath are suitable for permanent outdoor use.
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
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General requirements	These cables are conform to the EU-Directives 2014/35/EU (Low Voltage Directive)
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Environmental information

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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