ÖLFLEX® VFD & SIGNAL

UDB7416048EN
Date: August 1, 2026

1. APPLICATION

ÖLFLEX® VFD & Signal is a reduced-diameter shielded motor cable for VFD drives, with an additional pair for brake or temperature sensor. It is designed with the “Lapp Surge Guard” insulation system, which includes a semiconductive layer made to withstand nonlinear power distortions associated with VFD drives and to disperse increases in voltage caused by wave reflection, spikes, in-rush current, and harmonics.

Applications:

VFD drive and motor applications with temperature sensors or brake mechanisms; web presses; HVAC; conveyors; any on/off, slow down/speed up applications using VFD drives and motors.

Underwriters Laboratories

For Tray use in exposed run applications, Wind Turbines, Machine Tools, Flexible Motor Supply etc. and internal or external wiring of electrical and electronic equipment.

Canadian Standards

For Tray use, Power, Control Instrumentation, Appliance Wiring Material and internal or external wiring of electrical and electronic equipment applications.

2. CABLE DESCRIPTION

- Tinned copper fine wire
- “Lapp Surge Guard“ insulation
- Black color coded conductors with white identification
- Green/Yellow ground wire
- One Signal Pair individually shielded
- Overall Foil and TC Braid Shield
- Black UV, oil and flame resistant specially formulated thermoplastic polymer jacket

3. TECHNICAL DATA

Conductor Stranding	16 AWG (1,5 mm²) to 6 AWG (16,0 mm²): Class 5 (IEC 60228; VDE 0295) 4 AWG (21,0 mm²) to 2 AWG (33,7 mm²): Class K	
Design / Make-up	Cable is designed in accordance with the requirements of UL Standard 1277 and with CSA standards C22.2 No. 230 & No. 239	
Insulation	“Lapp Surge Guard“ with power distortion suppressant insulation and a crush resistant Nylon coating	
Signal Pair	18 or 14 AWG TC conductors, individually foil shielded with TC Drain wire	
Color Code	Black conductors with white numbers plus green/yellow (30% stripe width) Signal Pair: Black conductors with white numbers	
Shield	Tri-laminated Foil and Tinned Copper Braid Shield (85% coverage) Tinned Copper Drain wire	
Outer Sheath	Specially formulated thermoplastic polymer jacket	
Nominal Voltage	UL / CSA TC: UL WTTC: UL Flexible Motor Supply: VDE U_0/U:	600V 1000V 1000V 600/1000V

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Test Voltage	2000V	
Min Bend radius	For installation:	7.5 x OD
Temperature Range	UL/CSA TC: For stationary use: For flexible use:	-25°C to +90°C -40°C to +105°C -25°C to +105°C
Cable Attributes	OR-03, FR-03, FL-01, MP-03 Sunlight resistant, Direct Burial	
Approvals	UL MTW (Machine-Tool Wire) per UL 1063 UL THHN/THWN per UL 83 (14 AWG & larger) UL Type TC (Tray Cable) - ER (Exposed Run) per UL 1277 UL WTTC (Wind Turbine Tray Cable) per UL 2277 UL Flexible Motor Supply Cable per UL 2277 UL Submersible Pump Cable (14AWG and larger) UL AWM 20886 (Appliance Wiring Material) per UL 758 c(UL) T90 Nylon/TC-ER FT4 per CSA C22.2 No. 75 / CSA C22.2 No. 230 (14 AWG & larger) c(UL) CIC/TC-ER FT4 per CSA C22.2 No. 239 / CSA C22.2 No. 230 (16AWG) CSA AWM I/II A/B FT4 per CSA C22.2 No. 210	
Additional	NEC Article 336, Article 501 Class 1 Division 2 CEC Section 12, Section 18 NFPA 79 VDE 250-1 (meets rated voltage requirements only) P07-KA050011-MSHA LVD 2014/35/EU (Low Voltage Directive) RoHS directive UKCA	

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