

# ÖLFLEX® VFD 2XL with Signal

Flexible VFD cable with a control pair; 600V/1000V/2000V; UL & c(UL) TC-ER approval

LAPP KABEL STUÏTGART ÖLFLEX® VFD 2XL with Signal



ÖLFLEX® VFD 2XL with Signal is a robust oil- and UV-resistant shielded motor cable for VFD drives, with a pair for brake or temperature sensor. The XLPE (plus) insulation with enhanced electrical properties can withstand twice the dielectric voltage test, provides extended performance, and is suitable for 2kV applications.

## Recommended applications

VFD drive and motor connections; pumps; compressors; conveyors; elevators; extruders; presses; HVAC; on/off, slow down/speed up applications

## Approvals



Cable attributes page 648

	OIL	OR-03		FLAME	FR-03
	MOTION	FL-01		MECH.	MP-03

## Construction

**Conductors:** finely stranded tinned copper

**Insulation:** XLPE (plus)

**Shielding:** barrier tape; triple layer foil tape (100% coverage); tinned copper braid (85% coverage)

**Jacket:** specially formulated thermoplastic elastomer (TPE); black

## Application Advantage

- One cable for applications up to 2kV
- Low capacitance design
- Industrial grade phthalate-free jacket designed for harsh environments
- UL TC-ER & c(UL) CIC/TC approved
- Reduces space and weight in tray
- No conduit required due to TC-ER rating

## Complete the installation



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## Technical data

**Minimum bend radius:** 7.5 x cable diameter

**Temperature range:**  
 - UL/CSA TC: -25°C to +90°C  
 - for stationary use: -40°C to +105°C  
 - for flexible use: -25°C to +105°C

**Nominal voltage:**  
 - UL TC: 600V/2000V  
 - UL Flexible Motor Supply: 1000V  
 - c(UL) CIC/TC: 600V  
 - cRU AWM: 1000V

**Test voltage:** 6000V

**Conductor stranding:**  
 - 16 - 6 AWG: Class 5 fine wire  
 - 4 - 2 AWG: Class K fine wire

**Color code:** black with white numbers, plus green/yellow ground and one black pair with white numbers

**Approvals:**  
 UL: TC-ER per UL 1277  
 Attributes: UL Oil Res I/II  
 90°C wet or dry  
 -40°C cold bend; -25°C cold impact  
 sunlight resistant  
 direct burial  
 NFPA 79  
 NEC: Class 1 Division 2 per NEC Article 501  
 Canada: c(UL) CIC/TC FT4  
 cRU AWM I/II A/B FT4  
 Additional: CE (50V - 1kV) & RoHS

Part number	Number of conductors incl. ground	Nominal outer diameter in mm	Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread	SKINTOP® MS-M BRUSH metric thread	
<b>16 AWG (1.5 mm<sup>2</sup>)</b>							
700710	4 + (18 AWG)	0.652	16.6	91	200	53112250	53112677
<b>14 AWG (2.5 mm<sup>2</sup>)</b>							
700711	4 + (18 AWG)	0.687	17.4	132	252	53112250	53112677
<b>12 AWG (4 mm<sup>2</sup>)</b>							
700712	4 + (18 AWG)	0.752	19.1	160	294	53112260	53112677
<b>10 AWG (6 mm<sup>2</sup>)</b>							
700713	4 + (18 AWG)	0.798	20.3	215	354	53112260	53112677

Part number	Number of conductors incl. ground	Nominal outer diameter in mm	Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread	SKINTOP® MS-M BRUSH metric thread	
<b>8 AWG (10 mm<sup>2</sup>)</b>							
700714	4 + (14 AWG)	0.986	25.0	334	690	53112270	53112678
<b>6 AWG (16 mm<sup>2</sup>)</b>							
700715	4 + (14 AWG)	1.112	28.2	504	905	53112270	53112679
<b>4 AWG (21 mm<sup>2</sup>)</b>							
700716	4 + (14 AWG)	1.259	32.0	667	1125	—	53112679
<b>2 AWG (33.7 mm<sup>2</sup>)</b>							
700717	4 + (14 AWG)	1.403	35.6	1027	1580	—	53112680

( ) = shielded pair

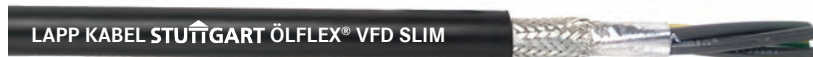
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Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.

If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question.

# ÖLFLEX® VFD SLIM

Reduced-diameter VFD cable; 600V/1000V; UL & c(UL) TC-ER approval



ÖLFLEX® VFD SLIM is a reduced-diameter shielded motor cable for VFD drives. 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. It is resistant to a wide range of disinfecting solutions used in the food, beverage, chemical and related industries.

## Recommended applications

VFD drive and motor applications; web presses; HVAC; conveyors; on/off, slow down/speed up applications

## Approvals



Cable attributes		page 648	
OIL	OR-03	FLAME	FR-03
MOTION	FL-01	MECH.	MP-03

## Construction

**Conductors:** finely stranded tinned copper

**Insulation:** LAPP Surge Guard insulation system

**Shielding:** barrier tape; triple layer foil tape (100% coverage); tinned copper braid (85% coverage)

**Jacket:** specially formulated thermoplastic polymer; black

## Application Advantage

- LAPP Surge Guard insulation protection
- UL TC-ER & c(UL) CIC/TC approved
- Double shielded for extra protection
- Resistant to a wide range of disinfecting solutions used in the food, beverage, chemical and related industries, according to ECOLAB® PM 40-1 test procedure

Complete the installation	
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## Technical data

<b>Minimum bend radius:</b>	7.5 x cable diameter	<b>Color code:</b>	black with white numbers, plus green/yellow ground
<b>Temperature range:</b>	-25°C to +90°C - for stationary use: -40°C to +105°C - for flexible use: -25°C to +105°C	<b>Approvals:</b>	UL: TC-ER per UL 1277 MTW per UL 1063 WTTTC per UL 2277 AWM 20886 Attributes: UL Oil Res I/II 75°C wet; 90°C dry -40°C cold bend; -25° cold impact sunlight resistant Submersible pump (14 AWG & larger) direct burial NFPA 79 NEC: Class 1 Division 2 per NEC Article 501 Canada: c(UL) CIC/TC FT4 CSA AWM I/II A/B 1000V FT4 Additional: MSHA P-07KA050013-MSHA CE & RoHS
<b>Nominal voltage:</b>	- UL/CSA TC: 600V - UL WTTTC: 1000V - UL Flexible Motor Supply: 1000V - UL/CSA AWM: 1000V		
<b>Test voltage:</b>	2000V		
<b>Peak voltage:</b>	7500V		
<b>Conductor stranding:</b>	- 18 - 6 AWG: Class 5 fine wire* - 4 - 2 AWG: Class K fine wire * 18 AWG meets only Class 5 cross section and DC resistance		

Part number	Number of conductors incl. ground	Nominal outer diameter in mm	Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread	SKINTOP® MS-M BRUSH metric thread
<b>18 AWG (1 mm²)</b>						
761804	4	0.394	10.0	53	112	53112230
<b>16 AWG (1.5 mm²)</b>						
761604	4 + drain	0.465	11.8	73	154	53112240
<b>14 AWG (2.5 mm²)</b>						
761404	4	0.514	13.1	100	194	53112240
<b>12 AWG (4 mm²)</b>						
761204	4	0.583	14.8	139	254	53112250
<b>10 AWG (6 mm²)</b>						
761004	4	0.697	17.7	195	346	53112260

Part number	Number of conductors incl. ground	Nominal outer diameter in mm	Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread	SKINTOP® MS-M BRUSH metric thread
<b>8 AWG (10 mm²)</b>						
760804	4	0.829	21.1	326	596	53112260
<b>6 AWG (16 mm²)</b>						
760604	4	1.002	25.5	494	785	53112270
<b>4 AWG (21 mm²)</b>						
760404	4	1.186	30.1	648	965	53112270
<b>2 AWG (33.7 mm²)</b>						
760204	4	1.395	35.4	985	1339	53112680

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