

# ÖLFLEX® FD 890/890 CY

Super flexible heavy duty continuous flex control cable with PVC jacket



ÖLFLEX® FD 890 is a time-tested, performance-proven multi-conductor cable designed for continuous flex applications. Fine stranding and specially formulated compounds optimize flexing life and provide excellent resistance to mineral oils, synthetic oils, and water-based coolants. ÖLFLEX® FD 890 CY is a shielded version available with an overall tinned copper braid. This is recommended when electrical interference needs to be suppressed. For bending cycles and operation parameters, see [www.lappusa.com/cf-rating](http://www.lappusa.com/cf-rating)

## Recommended applications

Cable tracks & power chains; gantry robots; pick and place units; conveyor systems; machine tool and other continuous flexing applications

## Approvals



Cable attributes		page 648	
OIL	OR-04	FLAME	FR-02
MOTION	CF-03*	MECH.	MP-02

Complete the installation

SKINTOP® strain relief	page 492	EPIC® connectors	page 284
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ÖLFLEX® CONNECT solution

ÖLFLEX® CONNECT CHAIN	page 617
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## Unshielded construction

**Conductors:** finely stranded bare copper

**Insulation:** specially formulated PVC; dry lubricant; non-woven wrapping over outer layer

**Jacket:** specially formulated PVC; black

## Shielded construction

**Conductors:** finely stranded bare copper

**Insulation:** specially formulated PVC; dry lubricant; non-woven wrapping over outer layer

**Inner jacket:** PVC

**Shielding:** tinned copper braid (85% coverage)

**Jacket:** specially formulated PVC; black

## Application advantage

- Meets Oil Res I/II, resistant to harsh environments for long service life
- Pressure-extruded jacket for precision connectorization
- Passes UL 1277 impact and crush tests

## Technical data

<b>Minimum bend radius:</b>		<b>Color code:</b>	black with white numbers, plus green/yellow ground
- for continuous flexing:	7.5 x cable diameter		
- shielded:	10 x cable diameter		
<b>Temperature range:</b>		<b>Approvals:</b>	UL: AWM 2587 AWM 21098 (Oil)
- for continuous flexing:	-5°C to +90°C	Attributes:	UL Oil Res I/II sunlight resistant NFPA 79 UL 758 80°C Oil Test
- for stationary use:	-25°C to +90°C	Canada:	CSA AWM I/II A/B FT1 CSA C22.2, 210.2
<b>Nominal voltage:</b>	600V	Additional:	CE & RoHS
<b>Test voltage:</b>	2000V	*UL Verified ID A522492:	Continuous Flex Test Method Verified
<b>Conductor stranding:</b>	better than Class 6 super fine wire		

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® FD 890

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight	Approx. weight	SKINTOP® SL
		in	mm	lbs/mft	lbs/mft	PG thread
<b>20 AWG (0.5 mm<sup>2</sup>)</b>						
8920034	3	0.264	6.7	10	43	S2109
8920044	4	0.291	7.4	16	53	S2111
8920054	5	0.323	8.2	19	68	S2111
8920074	7	0.382	9.7	27	75	S2113
8920124	12	0.457	11.6	39	124	S2113
8920184	18	0.539	13.7	69	183	S2121
8920254	25	0.677	17.2	96	265	S2121
<b>18 AWG (1 mm<sup>2</sup>)</b>						
8918034	3	0.287	7.3	18	46	S2111
8918044	4	0.327	8.3	24	60	S2111
8918054	5	0.355	9.0	29	74	S2111
8918074	7	0.429	10.9	41	102	S2113
8918124	12	0.500	12.7	70	158	S2116
8918154	15	0.559	14.2	88	202	S2121
8918184	18	0.614	15.6	105	234	S2121
8918254	25	0.763	19.4	146	336	S2129
8918344	34	0.826	21.0	211	434	S2129
<b>16 AWG (1.5 mm<sup>2</sup>)</b>						
8916034	3	0.323	8.2	30	79	S2111
8916044	4	0.358	9.1	39	106	S2111
8916054	5	0.393	10.0	49	132	S2113

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight	Approx. weight	SKINTOP® SL
		in	mm	lbs/mft	lbs/mft	PG thread
8916074	7	0.480	12.2	68	138	S2116
8916124	12	0.555	14.1	117	214	S2121
8916184	18	0.685	17.4	175	323	S2129
8916254	25	0.854	21.7	242	505	S2129
8916344	34	0.925	23.5	329	623	S2129
8916504	50	1.094	27.8	437	880	S2136
<b>14 AWG (2.5 mm<sup>2</sup>)</b>						
8914044	4	0.456	11.6	67	148	S2113
8914074	7	0.614	15.6	117	227	S2121
<b>12 AWG (4 mm<sup>2</sup>)</b>						
8912044	4	0.531	13.5	104	208	S2121
8912074	7	0.740	18.8	181	335	S2129
<b>10 AWG (6 mm<sup>2</sup>)</b>						
8910044	4	0.640	16.3	155	275	S2121
<b>8 AWG (10 mm<sup>2</sup>)</b>						
8908044*	4	0.756	19.2	259	481	S2129
<b>6 AWG (16 mm<sup>2</sup>)</b>						
8906044*	4	0.909	23.1	413	709	S2129
<b>4 AWG (25 mm<sup>2</sup>)</b>						
8904044*	4	1.059	26.9	646	1005	S2136
<b>2 AWG (35 mm<sup>2</sup>)</b>						
8902044*	4	1.252	31.8	904	1240	S2248

\*MTO, min applies.

ÖLFLEX® FD 890 CY

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight	Approx. weight	SKINTOP® MS-SC
		in	mm	lbs/mft	lbs/mft	PG thread
<b>20 AWG (0.5 mm<sup>2</sup>)</b>						
8920034S	3	0.342	8.7	27	82	53112220
8920044S	4	0.370	9.4	38	97	53112230
8920054S	5	0.409	10.4	44	108	53112230
8920074S	7	0.468	11.9	52	137	53112240
8920124S	12	0.551	14.0	68	214	53112250
8920184S	18	0.657	16.7	112	293	53112250
8920254S	25	0.803	20.4	158	421	53112260
<b>18 AWG (1 mm<sup>2</sup>)</b>						
8918034S	3	0.375	9.5	40	91	53112230
8918044S	4	0.419	10.6	48	112	53112230
8918054S	5	0.447	11.4	57	131	53112240
8918074S	7	0.528	13.4	76	198	53112240
8918124S	12	0.636	16.2	125	271	53112250
8918184S	18	0.719	18.3	162	357	53112260
8918254S	25	0.887	22.5	218	538	53112260
8918344S	34	0.986	25.0	211	660	53112270
<b>16 AWG (1.5 mm<sup>2</sup>)</b>						
8916034S	3	0.409	10.4	54	121	53112230
8916044S	4	0.444	11.3	68	154	53112240

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight	Approx. weight	SKINTOP® MS-SC
		in	mm	lbs/mft	lbs/mft	PG thread
8916054S	5	0.480	12.2	81	170	53112240
8916074S	7	0.598	15.2	125	258	53112250
8916124S	12	0.673	17.1	174	366	53112260
8916184S	18	0.826	21.0	239	493	53112260
8916254S	25	0.996	25.3	320	687	53112270
8916344S	34	1.067	27.1	446	769	53112270
<b>14 AWG (2.5 mm<sup>2</sup>)</b>						
8914044S	4	0.551	14.0	103	181	53112250
8914074S	7	0.709	18.0	175	347	53112260
8914184S	18	1.012	25.7	385	762	53112270
<b>12 AWG (4 mm<sup>2</sup>)</b>						
8912044S	4	0.650	16.5	160	302	53112250
8912074S	7	0.858	21.8	251	517	53112260
<b>10 AWG (6 mm<sup>2</sup>)</b>						
8910044S	4	0.752	19.1	215	333	53112260
<b>8 AWG (10 mm<sup>2</sup>)</b>						
8908044S*	4	0.882	22.4	330	701	53112260
<b>6 AWG (16 mm<sup>2</sup>)</b>						
8906044S*	4	1.066	27.1	498	986	53112270

\*MTO, min applies.

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.