

# ÖLFLEX® SERVO FD 798 CP

## High-acceleration continuous flex encoder & resolver cable

LAPP KABEL STÜTTGART ÖLFLEX® SERVO FD 798 CP



ÖLFLEX® SERVO FD 798 CP is specially designed, manufactured, and tested by LAPP for usage in modern high-acceleration cable chain applications as well as over long travel lengths. It replaces four ÖLFLEX® SERVO FD encoder/resolver cables: 760 CP/CP DESINA & 770 CP/CP DESINA. For bending cycles and operation parameters, see [www.lappusa.com/cf-rating](http://www.lappusa.com/cf-rating)

### Recommended applications

Connecting cable between servo controller and encoder/resolver; connecting cable between servo controller and speed generators, cable chains, and machine parts; transfer lines and production lines

### Approvals



Cable attributes		page 648	
OIL	OR-05	FLAME	FR-02
MOTION	CF-04A	MECH.	MP-05

Complete the installation



EPIC® SIGNAL M23  
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ÖLFLEX® CONNECT solution



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### Construction

**Conductors:** extra fine tinned copper

**Pairs:** twisted and bundled; shielded (see chart)

**Insulation:** polypropylene

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

**Jacket:** polyurethane; green

### Application advantage

- High dynamic performance in cable chains:
  - Acceleration up to 50 m/s<sup>2</sup>
  - Travel speed up to 5 m/s
  - Travel lengths up to 100 m
- Abrasion-, cut-, and oil-resistant; abrasion-resistant, halogen-free, flame retardant, flexes at low temperatures

### Technical data

<b>Minimum bend radius:</b>		<b>Conductor stranding:</b>	extra fine wire
- for continuous flexing:	7.5 x cable diameter	<b>Color code:</b>	see following color chart
- for installation:	4 x cable diameter	<b>Approvals:</b>	UL: AWM 20236
<b>Temperature range:</b>		Attributes:	VW-1
- for stationary use:	-50°C to +80°C	Canada:	CSA AWM I/II A/B FT1
- for continuous flexing:	-40°C to +80°C	Additional:	RoHS
<b>Nominal voltage:</b>	30V		MUD acc. to IEC 61892-4 Annex D
<b>Test voltage:</b>			
- conductor/conductor:	1500V		
- conductor/shield:	750V		

Part number	Conductor description			Nominal outer diameter		Copper weight lbs/mft	Approx. weight lbs/mft	EPIC® SIGNAL M23 # of contacts
	power conductors	+	control pairs	in	mm			
<b>Power conductors + control pairs</b>								
0036910	20 AWG/4c	+	22 AWG/4pr	0.350	8.9	53	84	12
0036911	2 x (20 AWG/1c)	+	3 x (26 AWG/1pr)	0.350	8.9	47	81	8+1
0036912	26 AWG/4c	+	3 x (26 AWG/1pr) + 20 AWG/1pr	0.346	8.8	46	74	12
0036913	26 AWG/4c + 24 AWG/4c	+	3 x (26 AWG/1pr) + 20 AWG/1pr	0.370	9.4	54	87	16
0036914	20 AWG/9c		-	0.346	8.8	48	74	9
0036915	18 AWG/2c	+	24 AWG/4pr	0.346	8.8	42	73	12
0036916	20 AWG/2c	+	24 AWG/6pr	0.406	10.3	45	81	16
0036917	26 AWG/10c	+	20 AWG/1pr	0.303	7.7	28	55	12
0036918	26 AWG/10c + 20 AWG/4c		-	0.319	8.1	36	66	16
0036920	20 AWG/4c	+	26 AWG/4pr	0.323	8.2	34	64	12
0036921	-		24 AWG/4pr	0.299	7.6	26	50	9
0036923	-		26 AWG/8pr	0.307	7.8	34	57	16
0036924	-		26 AWG/4pr	0.252	6.4	20	35	8+1
0036926	24 AWG/12c		-	0.272	6.9	30	49	12
0036927	20 AWG/2c	+	24 AWG/4pr	0.335	8.5	42	66	12
0036928	20 AWG/4c + (26 AWG/4c)	+	26 AWG/2pr + 2 x (26 AWG/1pr)	0.358	9.1	53	91	16
0036929	20 AWG/2c	+	2 x (24 AWG/1pr)	0.343	8.7	31	66	6
0036930	20 AWG/2c	+	24 AWG/2pr	0.287	7.3	26	48	6

( ) = shielded

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.

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Part number	Conductor description power conductors + control pairs		Nominal outer diameter		Copper weight lbs/mft	Approx. weight lbs/mft	EPIC® SIGNAL M23 # of contacts	
			in	mm				
<b>Power conductors + control pairs</b>								
0036949	2 x (20 AWG/1c)	+	3 x (26 AWG/1pr)	0.378	9.6	47	80	8
0036942		+	(25 AWG/2pr)	0.197	5	16	32	4
0036943	18AWG/4c +(26 AWG/4c)	+	26 AWG/4pr	0.382	9.7	69	117	16
0036944	24 AWG/3c + 18 AWG/2c	+	3 x (24 AWG/1pr)	0.366	9.3	64	109	11
0036946		+	3 x (26 AWG/1pr) + (20 AWG/1pr)	0.394	10	45	95	8
0036941	(26 AWG/3c)	+	3 x (26 AWG/1pr)	0.362	9.2	38	84	9
0036945	18 AWG/2c	+	4 x (26 AWG/1pr)	0.449	11.4	62	77	10
0036947			24 AWG/5pr	0.354	9	34	84	10
0036940			24 AWG/6pr	0.366	9.3	48	96	12
0036948			22 AWG/5pr	0.342	8.7	50	73	10
0036931	2 x (18 AWG/1c)	+	3 x (26 AWG/1pr)	0.358	9.1	50	92	8
0036932	20 AWG/4c + (26 AWG/4c)	+	26 AWG/4pr	0.327	8.3	59	90	16
0036933	20 AWG/2c	+	24 AWG/3pr	0.331	8.4	34	58	8
0036934	20 AWG/2c	+	24 AWG/5pr-	0.374	9.5	46	76	12
0036935			24 AWG/3pr	0.256	6.5	24	47	6
0036936	20 AWG/2c	+	26 AWG/5pr	0.307	7.8	34	68	12
0036937	20 AWG/5c	+	25 AWG/2pr)	0.299	7.6	42	74	9
0036938	20 AWG/6c	+	25 AWG/5pr	0.342	8.7	53	76	16
0036939			28 AWG/10pr	0.244	6.2	27	47	20

ÖLFLEX® SERVO FD 798 CP color code chart on page 744 of LAPP North America digital catalog.