

ÖLFLEX® SERVO FD 796 CP

High-acceleration continuous flex servo cable with PUR jacket; shielded

LAPP KABEL STUTTGART ÖLFLEX® SERVO FD 796 CP



ÖLFLEX® SERVO FD 796 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 seven ÖLFLEX® SERVO FD cables: 755 CP, 755 CP DESINA, 781 CP, 785 CP, 785 CP DESINA, 790 CP & 795 CP. For bending cycles and operation parameters, see www.lappusa.com/cf-rating

Recommended applications

Motor connections between servo controllers and motors on industrial machinery; in cable chains or moving machine parts; assembly handling; production lines and robotic systems with North American and European approvals

Approvals



Construction

Conductors: extra fine bare copper

Pairs: one pair: shielded with tinned copper braid; non-woven wrapping • two pairs: shielded with foil, drain wire, tinned copper braid; non-woven wrapping twisted together

Insulation: polypropylene

Shielding: overall non woven wrapping; tinned copper braid (85% coverage)

Jacket: polyurethane; orange

Application advantage

- High dynamic performance in cable chains:
 - Acceleration up to 50 m/s²
 - Travel speed up to 5 m/s
 - Travel lengths up to 100 m
- Abrasion-, cut-, and oil-resistant; halogen-free, flame-retardant, and flexible at low temperatures

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

Complete the installation	
EPIC® POWER LS1	page 441

ÖLFLEX® CONNECT solution	
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Technical data

Minimum bend radius:		Conductor stranding:	Class 6 super fine wire
- for continuous flexing:		Color code:	
- 16 - 6 AWG:	7.5 x cable diameter	- power conductors:	black conductors with white letters: U/L1/C/L+; V/L2; W/L3/D/L- plus green/yellow ground
- 4 - 1 AWG:	10 x cable diameter	- 1 pair:	black & white
- for stationary use:	4 x cable diameter	- 2 pair:	black with white numbers: 5, 6, 7, 8
Temperature range:		Approvals:	UL: AWM 20234
- for continuous flexing:	-40°C to +80°C	Attributes:	NFPA 79
- for stationary use:	-50°C to +80°C	Canada:	cRU AWM I/II A/B FT1
Nominal voltage:		Additional:	VDE Reg. no 8591 CE & RoHS
- UL/CSA:	1000V		
- IEC U ₀ /U:	600/1000V		
Test voltage:	4000V		

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® POWER LS1* configuration	
			in	mm				
4 power conductors								
0027950	16 AWG/4c	—	0.362	9.2	53	94	5+PE	
0027951	14 AWG/4c	—	0.418	10.6	87	132	5+PE	
0027952	12 AWG/4c	—	0.469	11.9	125	180	5+PE	
0027953	10 AWG/4c	—	0.567	14.4	199	267	—	
0027954	8 AWG/4c	—	0.693	17.6	302	397	—	
0027955	6 AWG/4c	—	0.867	22.0	481	642	—	
0027956	4 AWG/4c	—	0.993	25.2	721	898	—	
0027957	2 AWG/4c	—	1.131	28.7	995	1189	—	
0027958	1 AWG/4c	—	1.316	33.4	1421	1658	—	
4 power conductors + 1 control pair								
0027959	16 AWG/4c	+	(16 AWG/1pr)	0.473	12.0	91	175	3+PE+4
0027960	14 AWG/4c	+	(16 AWG/1pr)	0.544	13.8	126	214	3+PE+4
0027961	12 AWG/4c	+	(16 AWG/1pr)	0.587	14.9	158	259	3+PE+4
0027962	10 AWG/4c	+	(16 AWG/1pr)	0.670	17.0	221	327	—
0027963	8 AWG/4c	+	(16 AWG/1pr)	0.764	19.4	346	471	—
0027964	6 AWG/4c	+	(16 AWG/1pr)	0.938	23.8	509	704	—
0027965	4 AWG/4c	+	(16 AWG/1pr)	1.064	27.0	771	1030	—
0027966	2 AWG/4c	+	(16 AWG/1pr)	1.229	31.2	1034	1409	—
0027967	1 AWG/4c	+	(16 AWG/1pr)	1.367	34.7	1466	1829	—
4 power conductors + 2 control pairs								
0027969	16 AWG/4c	+	2 x (19 AWG/1pr)	0.481	12.2	107	210	3+PE+4
0027970	14 AWG/4c	+	2 x (18 AWG/1pr)	0.575	14.6	139	265	3+PE+4
0027971	12 AWG/4c	+	(18 AWG/1pr) + (16 AWG/1pr)	0.642	16.3	231	326	3+PE+4
0027972	10 AWG/4c	+	(18 AWG/1pr) + (16 AWG/1pr)	0.713	18.1	293	395	—
0027973	8 AWG/4c	+	(18 AWG/1pr) + (16 AWG/1pr)	0.859	21.8	410	550	—
0027974	6 AWG/4c	+	2 x (16 AWG/1pr)	1.005	25.5	538	763	—
0027975	4 AWG/4c	+	2 x (16 AWG/1pr)	1.139	28.9	798	1048	—
0027976	2 AWG/4c	+	2 x (16 AWG/1pr)	1.237	31.4	1067	1406	—
0027977	1 AWG/4c	+	2 x (14 AWG/1pr)	1.450	36.8	1718	1962	—

() = shielded

* Check connection on motor prior to selecting EPIC® POWER LS1 connector type