

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.

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 640
OIL	OR-05	FLAME
MOTION	CF-04A	MECH.
		FR-02
		MP-05

Complete the Installation	
SKINTOP® MS-SC	EPIC® POWER LS1
page 516	page 431

ÖLFLEX® CONNECT Solution	
ÖLFLEX® CONNECT SERVO	page 599

Technical Data

<p> Minimum Bend Radius:</p> <ul style="list-style-type: none"> - for continuous flexing: <ul style="list-style-type: none"> - 16 - 6 AWG: 7.5 x cable diameter - 4 - 1 AWG: 10 x cable diameter - for stationary use: 4 x cable diameter 	<p> Conductor Stranding: Class 6 super fine wire</p>
<p> Temperature Range:</p> <ul style="list-style-type: none"> - for continuous flexing: -40°C to +80°C - for stationary use: -50°C to +80°C 	<p> Color Code:</p> <ul style="list-style-type: none"> - Power: Black conductors with white letters: U/L1/C/L+; V/L2; W/L3/D/L- plus green/yellow ground - 1 pair: Black & white - 2 pair: Black with white numbers: 5, 6, 7, 8
<p> Nominal Voltage:</p> <ul style="list-style-type: none"> - UL/CSA: 1000V - IEC U₀/U: 600/1000V 	<p> Approvals:</p> <ul style="list-style-type: none"> UL: AWM 20234 Attributes: NFPA 79 Canada: cRU AWM I/II A/B FT1 Additional: VDE Reg. no 8591 CE & RoHS
<p> Test Voltage: 4000V</p>	

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. For current information go to our website.

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Part Number	Size / Number of Conductors		Nominal Outer Diameter		Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	SKINTOP® MS-M BRUSH Metric Thread	
	Power Conductors	Control Pairs	(in)	(mm)					
4 Power Conductors + 0 Control Pairs									
0027950	16 AWG/4c	—	0.362	9.2	53	94	53112220	—	
0027951	14 AWG/4c	—	0.418	10.6	87	132	53112230	53112676	
0027952	12 AWG/4c	—	0.469	11.9	125	180	53112240	53112676	
0027953	10 AWG/4c	—	0.567	14.4	199	267	53112250	53112676	
0027954	8 AWG/4c	—	0.693	17.6	302	397	53112260	53112677	
0027955	6 AWG/4c	—	0.867	22.0	481	642	53112260	53112678	
0027956	4 AWG/4c	—	0.993	25.2	721	898	53112270	53112678	
0027957	2 AWG/4c	—	1.131	28.7	995	1189	53112270	53112679	
0027958	1 AWG/4c	—	1.316	33.4	1421	1658	—	53112679	
4 Power Conductors + 1 Control Pair									
0027959	16 AWG/4c	+	(16 AWG/1pr)	0.473	12.0	91	175	53112240	53112676
0027960	14 AWG/4c	+	(16 AWG/1pr)	0.544	13.8	126	214	53112240	53112676
0027961	12 AWG/4c	+	(16 AWG/1pr)	0.587	14.9	158	259	53112250	53112676
0027962	10 AWG/4c	+	(16 AWG/1pr)	0.670	17.0	221	327	53112250	53112677
0027963	8 AWG/4c	+	(16 AWG/1pr)	0.764	19.4	346	471	53112260	53112677
0027964	6 AWG/4c	+	(16 AWG/1pr)	0.938	23.8	509	704	53112260	53112678
0027965	4 AWG/4c	+	(16 AWG/1pr)	1.064	27.0	771	1030	53112270	53112678
0027966	2 AWG/4c	+	(16 AWG/1pr)	1.229	31.2	1034	1409	53112270	53112679
0027967	1 AWG/4c	+	(16 AWG/1pr)	1.367	34.7	1466	1829	—	53112679
4 Power Conductors + 2 Control Pairs									
0027969	16 AWG/4c	+	2 x (19 AWG/1pr)	0.481	12.2	107	210	53112240	53112676
0027970	14 AWG/4c	+	2 x (18 AWG/1pr)	0.575	14.6	139	265	53112250	53112676
0027971	12 AWG/4c	+	(18 AWG/1pr) + (16 AWG/1pr)	0.642	16.3	231	326	53112250	53112676
0027972	10 AWG/4c	+	(18 AWG/1pr) + (16 AWG/1pr)	0.713	18.1	293	395	53112260	53112677
0027973	8 AWG/4c	+	(18 AWG/1pr) + (16 AWG/1pr)	0.859	21.8	410	550	53112260	53112678
0027974	6 AWG/4c	+	2 x (16 AWG/1pr)	1.005	25.5	538	763	53112270	53112678
0027975	4 AWG/4c	+	2 x (16 AWG/1pr)	1.139	28.9	798	1048	53112270	53112679
0027976	2 AWG/4c	+	2 x (16 AWG/1pr)	1.237	31.4	1067	1406	53112270	53112679
0027977	1 AWG/4c	+	2 x (14 AWG/1pr)	1.450	36.8	1718	1962	—	53112680

() = 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. For current information go to our website.