

Servo Cable according to SIEMENS® Standard 6FX 8PLUS

Continuous Flex Servo Cable with PUR Jacket; Shielded



Servo cables according to SIEMENS® Standard 6FX 8PLUS are continuous flexing, oil-resistant, UL, CSA, VDE & CE rated power supply, feedback and signal cables for signal transmission or motor connections. They are designed for dynamic performance in cable chains. Servo cable according to SIEMENS® Standard 6FX 8PLUS replaces SIEMENS® Standard 6FX 7008 and 8008.

Construction

Conductors: Signal cables: tinned copper; Power cables: bare copper

Pairs: Twisted together; shielded with tinned copper braid and non-woven wrap

Insulation: Polypropylene

Shielding: Tinned copper braid; non-woven wrap

Jacket: Feedback/signal: polyurethane; green; Servo/motor: polyurethane; orange

Recommended Applications

Power drive systems; sensor leads for signal transmission and motor connections; connections between servo controllers, encoders/resolvers, and motors; assembly lines; all machines utilizing servo motors

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

Approvals



Cable Attributes		page 640	
OIL	OR-05	FLAME	FR-02
MOTION	CF-04	MECH.	MP-05

Complete the Installation	
SKINTOP® MS-SC	page 516
EPIC® Connectors	page 428

ÖLFLEX® CONNECT Solution	
ÖLFLEX® CONNECT SERVO	page 599

Technical Data

<p> Minimum Bend Radius:</p> <ul style="list-style-type: none"> - Power cable: <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 - Signal cable: <ul style="list-style-type: none"> - for continuous flexing: 8 x cable diameter - for stationary use: 4 x cable diameter <p> Temperature Range:</p> <ul style="list-style-type: none"> - for continuous flexing: -20°C to +60°C - for stationary use: -50°C to +80°C <p> Nominal Voltage:</p> <ul style="list-style-type: none"> - Signal conductors: 30V - Power/control conductors: 1000V <p> Test Voltage:</p> <ul style="list-style-type: none"> - Signal conductors: 500V - Power conductors: 4000V 	<p> Conductor Stranding: Class 6 super fine wire</p> <p> Color Code:</p> <ul style="list-style-type: none"> - Feedback/signal cables: See following color chart - Motor/servo cables: <ul style="list-style-type: none"> - 16 - 14 AWG: Black with white letters: V/L2; U/L1/C/L+; W/L3/D/L- plus green/yellow ground - 12 - 1 AWG: U/L1/C/L+; V/L2; W/L3/D/L- plus green/yellow ground - Control pair: Black & white <p> Approvals:</p> <ul style="list-style-type: none"> UL: AWM 21223 AWM 20236 (sensor leads) Canada: CSA AWM I/II A/B 1kV 80°C FT1 Additional: Based on VDE specifications CE & RoHS
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Color Code: Feedback/Signal Cable

Part Number	Size / Number of Conductors	Color Code
00277101	26 AWG/8pr	white/yellow & white/green – white/red & white/orange – white/black & white/brown – gray & white – blue & violet – yellow & green – red & orange – black & brown
00277111	22 AWG/4pr	brown & black – red & orange – yellow & green – blue & violet
	20 AWG/4c	white/blue – white/black – white/red – white/yellow
00277121	26 AWG/3pr	yellow & green – black & brown – red & orange
	20 AWG/2c	black – red
00277131	26 AWG/3pr	yellow & green – black & brown – red & orange
	26 AWG/4c	gray – blue – white/yellow – white/black
	20 AWG/1pr	brown/red & brown/blue
00277141	26 AWG/3pr	yellow & green – black & brown – red & orange
	26 AWG/4c	gray – blue – white/yellow – white/black
	26 AWG/4c	brown/yellow – brown/gray – green/black – green/red
	20 AWG/2c	brown/red – brown/blue
00277151	26 AWG/4pr	black & brown – red & orange – yellow & green – blue & violet
00277161	26 AWG/2pr	red & orange – black & brown
00277171	26 AWG/12c	black – brown – red – orange – yellow – green – blue – violet – gray – white – white/black – white/brown

Part Number	Size / Number of Conductors	SIEMENS® Part Number	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	SKINTOP® MS-M BRUSH Metric Thread
Feedback/Signal Cable							
00277101	26 AWG/8pr	6FX8008-1BD11	0.307 7.8	36	57	53112210	–
00277111	22 AWG/4pr + 20 AWG/4c	6FX8008-1BD21	0.350 8.9	52	81	53112220	–
00277121	3 x (26 AWG/1pr) + 2 x (20 AWG/1c)	6FX8008-1BD31	0.350 8.9	46	76	53112220	–
00277131	3 x (26 AWG/1pr) + 26 AWG/4c + 20 AWG/1pr	6FX8008-1BD41	0.346 8.8	44	68	53112220	–
00277141	3 x (26 AWG/1pr) + 26 AWG/4c + 20 AWG/2c + 26 AWG/4c	6FX8008-1BD51	0.370 9.4	58	93	53112220	53112676
00277151	26 AWG/4pr	6FX8008-1BD61	0.252 6.4	23	36	53112220	–
00277161	26 AWG/2pr	6FX8008-1BD71	0.197 5.0	16	24	53112210	–
00277171	26 AWG/12c	6FX8008-1BD81	0.272 6.9	32	51	53112210	–
00277992	26 AWG/2pr + 21 AWG/1pr	6FX8008-2DC00	0.283 7.2	26	50	53112210	–
Motor Cable							
0027784	16 AWG/4c	6FX8008-1BB11-Plus	0.359 9.1	61	101	53112220	53112676
0027785	14 AWG/4c	6FX8008-1BB21-Plus	0.418 10.6	89	148	53112230	53112676
0027786	12 AWG/4c	6FX8008-1BB31-Plus	0.469 11.9	138	202	53112240	53112676
0027787	10 AWG/4c	6FX8008-1BB41-Plus	0.571 14.5	212	302	53112250	53112676
0027788	8 AWG/4c	6FX8008-1BB51-Plus	0.690 17.5	328	444	53112260	53112677
0027789	6 AWG/4c	6FX8008-1BB61-Plus	0.851 21.6	517	679	53112260	53112678
Servo Cable							
0027790	16 AWG/4c + (16 AWG/1pr)	6FX8008-1BA11-Plus	0.457 11.6	98	155	53112230	53112676
0027791	14 AWG/4c + (16 AWG/1pr)	6FX8008-1BA21-Plus	0.528 13.4	126	202	53112240	53112676
0027792	12 AWG/4c + (16 AWG/1pr)	6FX8008-1BA31-Plus	0.583 14.8	174	255	53112250	53112676
0027793	10 AWG/4c + (16 AWG/1pr)	6FX8008-1BA41-Plus	0.662 16.8	245	356	53112250	53112676
0027794	8 AWG/4c + (16 AWG/1pr)	6FX8008-1BA51-Plus	0.764 19.4	376	514	53112260	53112677
0027795	6 AWG/4c + (16 AWG/1pr)	6FX8008-1BA61-Plus	0.910 23.1	548	732	53112660	53112678
0027796	4 AWG/4c + (16 AWG/1pr)	6FX8008-1BA25-Plus	1.048 26.6	784	1028	53112270	53112678
0027797	2 AWG/4c + (16 AWG/1pr)	6FX8008-1BA35-Plus	1.217 30.9	1044	1371	53112270	53112679
0027798	1 AWG/4c + (16 AWG/1pr)	6FX8008-1BA50-Plus	1.340 34.0	1470	1855	–	53112679

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