

## SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS

Motor and resolver/encoder cables - certified

Servomotor- and feedback cables in acc. to SIEMENS® Standard 6FX 8PLUS for dynamic power chain application, UL/CSA AWM and VDE certified

### Info

Servo drives  
PUR outer sheath  
EMC-compliant



Halogen-free



Mechanical resistance



Oil-resistant



Power chain



Interference signals



UV-resistant

### Benefits

Allows much faster speed and accelerations which increases the economic efficiency of the machines

Multi-standard certification reduces part varieties and saves costs

Increased durability under harsh conditions thanks to robust PUR outer sheath

Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

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Product Management [www.lappkabel.de](http://www.lappkabel.de)

You can find the current technical data in the corresponding data sheet.

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## SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS

### Application range

Connecting cable between servo controller and encoder/resolver  
Connecting cable between servo controller and motor  
In power chains or moving machine parts  
For use in assembling & pick-and-place machinery  
Particularly in wet areas of machine tools and transfer lines  
Assembly lines, production lines, in all kinds of machines

### Product features

Dynamic power chain performance:  
Acceleration up to 50 m/s<sup>2</sup>.  
Travel speeds up to 5 m/s.  
Travel distances up to 100 m.  
Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter  
Abrasion and cut-resistant, halogen-free, oil-resistant  
Flame-retardant according to IEC 60332-1-2 & CSA FT1

### Norm references / Approvals

Power cable:  
VDE-registered  
UL AWM Style 21223  
CSA AWM I/II, A/B 1000 V 80° FT 1  
Signal cables:  
UL/CSA AWM Style 20236  
UL File No. E63634  
For horizontal travel distances up to 100m  
For use in power chains: Please comply with assembly guideline Appendix T3

### Product Make-up

Extra-fine strand made of copper wires:  
> Signal cables: tinned  
> Power cables: bare  
Core insulation: polypropylene (PP)  
Tinned-copper braiding  
PUR outer sheath  
Signal cables: green (RAL 6018)  
Servo cable: orange (RAL 2003)  
Refer to data sheet for more details

### Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC000104 ETIM 5.0 Class-Description: Control cable
Classification ETIM 6:	ETIM 6.0 Class-ID: EC000104 ETIM 6.0 Class-Description: Control cable
Core identification code:	Details see datasheet
Conductor stranding:	Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
Minimum bending radius:	Power cable: Fixed: 4 x Diameter Dynamic: 1.5 mm <sup>2</sup> - 16 mm <sup>2</sup> : 7.5 x Diameter 25 mm <sup>2</sup> - 50 mm <sup>2</sup> : 10 x Diameter

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	Signal cable: Fixed: 4 x Diameter Dynamic: 8 x Diameter
Nominal voltage:	Signal cables: 30 V AC/DC Power cable: - Power cores: U0/U 600/1000 V (IEC) 1000 V (UL/CSA) - Control cores: 24 V AC/DC (IEC) 1000 V (UL/CSA)
Test voltage:	Power cable: 4 KV Signal cables: 500 V
Protective conductor:	G = with GN-YE protective conductor
Temperature range:	Flexing: -20°C to +60°C Fixed installation: -50°C to +80°C
Bending cycles & operation parameters:	10 mio. cycles

**Note**

Unless specified otherwise, the shown product values are nominal values at room temperature. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: [www.lappkabel.de/en/cable-standardlengths](http://www.lappkabel.de/en/cable-standardlengths)

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).

Siemens part designations (6FX5002/5008, 6FX7002/7008, 6FX8002/8008) are registered trademarks of Siemens AG, and are listed for comparison purposes only

Cables for power chain use should only be handled on drums prior to installation.

Article numbers refer to genuine Lapp products.

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Prices are net prices without VAT and surcharges. Sale to business customers only.

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Article number	Number of cores and mm <sup>2</sup> per conductor	Reference article no.	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
Feedback / signal cables					
00277101	8 x 2 x 0,18	6FX8008-1BD11	7.8	54	85
00277111	4 x 2 x 0,38 + 4 x 0,5	6FX8008-1BD21	8.9	77	120
00277121	3 x (2 x 0,14) + 2 x (0,5)	6FX8008-1BD31	8.9	69	113
00277131	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5	6FX8008-1BD41	8.8	66	101
00277141	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5 + 4 x 0,22	6FX8008-1BD51	9.4	86	139
00277151	4 x 2 x 0,18	6FX8008-1BD61	6.4	34.25	53
00277161	2 x 2 x 0,18	6FX8008-1BD71	5.0	23.1	36
00277171	12 x 0,22	6FX8008-1BD81	6.9	48	76
00277992	2 x 2 x 0,15 + 1 x 2 x 0,38	6FX8008-2DC00	7.2	39	67
Motor cables					
0027784	4 G 1.5	6FX8008-1BB11-Plus	9.1	90	150
0027785	4 G 2.5	6FX8008-1BB21-Plus	10.6	132	220
0027786	4 G 4.0	6FX8008-1BB31-Plus	11.9	204	300
0027787	4 G 6.0	6FX8008-1BB41-Plus	14.5	315	450
0027788	4 G 10.0	6FX8008-1BB51-Plus	17.5	488	660
0027789	4 G 16.0	6FX8008-1BB61-Plus	21.6	769	1010
Servo cables					
0027790	4 G 1,5 + (2 x 1,5)	6FX8008-1BA11-Plus	11.6	146	230
0027791	4 G 2,5 + (2 x 1,5)	6FX8008-1BA21-Plus	13.4	187	300
0027792	4 G 4 + (2 x 1,5)	6FX8008-1BA31-Plus	14.8	258	380
0027793	4 G 6 + (2 x 1,5)	6FX8008-1BA41-Plus	16.8	365	530
0027794	4 G 10 + (2 x 1,5)	6FX8008-1BA51-Plus	19.4	560	765
0027795	4 G 16 + (2 x 1,5)	6FX8008-1BA61-Plus	23.1	816	1090
0027796	4 G 25 + (2 x 1,5)	6FX8008-1BA25-Plus	26.6	1166	1530
0027797	4 G 35 + (2 x 1,5)	6FX8008-1BA35-Plus	30.9	1554	2040
0027798	4 G 50 + (2 x 1,5)	6FX8008-1BA50-Plus	34.0	2188	2760

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