

**ÖLFLEX® SERVO 9YSLCY-JB**

EMC-optimised motor cable, low-capacitance, double-screened, certified

**Info**

- EMC-optimised design
- 3+3 symmetry reduces common-mode interference effects
- AWM certification for USA and Canada

Benefits

- EMC-compliant installation of power drive systems conforming to EN 61800-3
- High power transmission for large drives
- Longer cable connection possible between frequency converter and motor due to low capacitance design
- Symmetrical 3+3 Version supports the reduction of bearing currents
- Versions with black outer sheath are suitable for outdoor use

Application range

- Connecting cable between frequency converter and motor
- In dry, damp or wet interiors
- Paper industry
- Chemical industry
- Heavy industry

Product features

- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- EN/VDE +90° C PP insulation

Norm references / Approvals

- USA: AWM Style 2570 or 20886, 1kV 80°C VW-1
Canada: AWM I/II A/B 1kV 80°C FT1
- UL File No. E63634
- Based on VDE 0276, 0250, 0207

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: polypropylene (PP)
- Cores twisted concentrically (symmetrically splitted protective conductor of 3+3 version is gusset-filling divided between the power cores)
- Screening: wrapping of laminated aluminium foil in combination with tinned copper braiding
- 4-core design: transparent PVC outer sheath
- 3+3 core version: PVC outer sheath, black

Technical data**Classification ETIM 5/6**

ETIM 5.0/6.0 Class-ID: EC000057
ETIM 5.0/6.0 Class-Description: Low voltage power cable

**Core identification code**

Colours according to HD 308 S2
VDE 0293-308

**Conductor stranding**

Fine wire according to VDE 0295
Class 5/ IEC 60228 Class 5

**Minimum bending radius**

Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

**Nominal voltage**

IEC U0/U: 600/1000 V
UL & CSA: 1000 V

**Test voltage**

4000 V

**Protective conductor**

Protective conductor of 3+3 version is gusset-filling divided between power cores

**Temperature range**

Flexing:
IEC: transparent -5°C to +80°C
IEC: black -5°C to +90 °C
UL/CSA: -5°C to +80°C
Fixed installation:
IEC: transparent -40°C to +80°C
IEC: black -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 9YSLCY-JB / 4-core version - transparent outer sheath				
0037000	4 G 1,5	10.5	87	230
0037001	4 G 2,5	11.8	133	300
0037002	4 G 4	13.3	213	485
0037003	4 G 6	14.9	298	630
0037004	4 G 10	17.7	460	860
0037005	4 G 16	21.5	707	1290
0037006	4 G 25	26.3	1100	1860
0037007	4 G 35	29.7	1542	2610
0037008	4 G 50	35.8	2206	2950
0037009	4 G 70	40.9	3002	3950
0037010	4 G 95	45.4	4004	5300
0037011	4 G 120	49.8	5108	6600
0037012	4 G 150	56.1	6225	7043
0037013	4 G 185	61.4	7568	8384
0037014	4 G 240	67.9	9940	12150

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 9YSLCY-JB / 3+3 core version - black outer sheath				
0037015	3 X 1,5 + 3 G 0,25	11.4	88	140
0037016	3 X 2,5 + 3 G 0,5	12.9	130	220
0037017	3 X 4 + 3 G 0,75	13.6	224	323
0037018	3 X 6 + 3 G 1,0	15.2	276	420
0037019	3 X 10 + 3 G 1,5	17.4	511	615
0037020	3 X 16 + 3 G 2,5	20.0	751	819
0037021	3 X 25 + 3 G 4	24.3	1204	1325
0037022	3 X 35 + 3 G 6	27.5	1535	1718
0037023	3 X 50 + 3 G 10	31.1	2156	2399
0037024	3 X 70 + 3 G 10	37.1	2980	3056
0037025	3 X 95 + 3 G 16	40.0	3953	4162
0037026	3 X 120 + 3 G 16	42.6	4836	5074
0037027	3 X 150 + 3 G 25	50.0	5412	6128
0037028	3 X 185 + 3 G 35	55.6	7077	7820

Unless specified otherwise, the shown product values are nominal values. 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

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).

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

Similar products

- ÖLFLEX® SERVO 2YSLCY-JB refer to page 97

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 700
- SKINTOP® MS-SC-M refer to page 701
- SKINTOP® MS-M BRUSH refer to page 702



ÖLFLEX® SERVO 719

Low capacitance servo cable with PVC outer sheath for static use - certified for North America

Info

- Successor of ÖLFLEX® SERVO 700
- Low-capacitance design

Benefits

- One common cable for multiple circuits
- Longer cable installation lengths thanks to low mutual capacitance cable design
- Multi-standard certification reduces part varieties and saves costs
- Space and weight-saving installations due to small cable diameters

Application range

- Connecting cable between servo controller and motor
- For static and occasionally flexible use
- Plant engineering
- Industrial machinery and machine tools
- Printing machines

Product features

- Low capacitance
- Flammability:
UL/CSA: VW-1, FT1
IEC/EN: 60332-1-2
- Oil-resistant

Norm references / Approvals

- USA: UL AWM Style 2570
Canada: cUL AWM Style I/II A/B FT1
- UL File No. E63634

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: polypropylene (PP)
- Individual design depending on the item:
power cores without or with one or two individually screened control core pairs twisted together in short lay lengths
- PVC outer sheath, black (RAL 9005)

Technical data

	Classification ETIM 5/6 ETIM 5.0/6.0 Class-ID: EC000104 ETIM 5.0/6.0 Class-Description: Control cable
	Core identification code Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-; GN/ YE protective conductor Single-paired versions: black; white Double-paired versions: black with white numbers 5; 6; 7; 8 0,34mm² pairs: WH/BN/GN/YE
	Conductor stranding Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
	Minimum bending radius Occasional flexing: 15 x outer diameter Fixed installation: 6 x outer diameter
	Nominal voltage Power cores and control cores: IEC U0/U: 600/1000 V UL & CSA: 1000 V
	Test voltage Core/Core: 4 kV Core/Screen: 4 kV
	Protective conductor G = with GN-YE protective conductor
	Temperature range Occasional flexing: -5 °C to +70 °C (UL: +80 °C) Fixed installation: -40 °C to +80 °C

Article number	Number of cores and mm² per conductor	Outer diameter (mm) approx.	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 719				
1020060	4 G 1,5 + (2 x 0,75)	9.7	83.3	177
1020065	4 G 1,5 + (2 x 1,5)	10.8	108.3	214
1020061	5 G 1,5 + (2 x 0,75)	10.6	97.7	203
1020062	7 G 1,5 + (2 x 0,75)	11.5	126.5	241
1020063	4 G 2,5 + (2 x 0,75)	11.1	121.7	238
1020066	4 G 2,5 + (2 x 1,5)	12.2	146.7	276
1020064	7 G 2,5 + (2 x 0,75)	12.7	193.7	325
1020067	4 G 4 + (2 x 1,5)	13.9	204.3	360
1020068	4 G 6 + (2 x 1,5)	16.1	281.1	478
1020069	4 G 10 + (2 x 1,5)	18.2	434.7	654
1020071	4 G 0,75 + 2 x (2 x 0,34)	9.0	62.1	121
1020072	4 G 1,5 + 2 x (2 x 0,75)	11.6	111.6	203
1020073	4 G 2,5 + 2 x (2 x 1,0)	13.6	159.7	286
1020074	4 G 4 + 2 x (2 x 1,0)	15.3	217.3	377
1020075	4 G 4 + (2 x 1,0) + (2 x 1,5)	15.5	237.6	396
1020076	4 G 6 + (2 x 1,0) + (2 x 1,5)	17.4	314.4	512

Unless specified otherwise, the shown product values are nominal values. 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
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Similar products

- ÖLFLEX® SERVO 719 CY refer to page 100

Accessories

- EPIC® POWER LS1
- SKINTOP® ST-M refer to page 684



ÖLFLEX® SERVO 719 CY

Screened, low capacitive servo cable with PVC outer sheath for static use - certified for North America

LAPP KABEL STUTTGART ÖLFLEX® SERVO 719 CY DESINA, CE



Info

- Successor of ÖLFLEX® SERVO 700 CY and ÖLFLEX® SERVO 709 CY
- Product range extension

Benefits

- Suitable for use with servomotor product lines from leading drive manufacturers
- Longer cable installation lengths thanks to low mutual capacitance cable design
- Multi-standard certification reduces part varieties and saves costs
- Space and weight-saving installations due to small cable diameters
- Copper braiding screens the cable against electromagnetic interference

Application range

- Connecting cable between servo controller and motor
- For static and occasionally flexible use
- Plant engineering
- Industrial machinery and machine tools
- Printing machines

Product features

- Low capacitance
- Flammability: UL/CSA: VW-1, FT1 IEC/EN: 60332-1-2
- Oil-resistant
- EMC-compliant

Norm references / Approvals

- USA: UL AWM Style 2570
Canada: cUL AWM Style I/II A/B FT1
- UL File No. E63634

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: polypropylene (PP)
- Individual design depending on the item: Power cores without or with one or two individually shielded control core pairs twisted together in short lay lengths; Power cores with control core triplet twisted together in short lay lengths
- Tinned copper screen braiding
- PVC outer sheath, orange (RAL 2003)

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000104
ETIM 5.0/6.0 Class-Description:
Control cable



Core identification code

Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE protective conductor
Single-paired versions: individual design depending on the item black; white or brown; white
Double-paired versions: black with white numbers 5; 6; 7; 8
0.34 mm² pairs: WH/BN/GN/YE
Triplet: black with white numbers 1; 2; 3



Conductor stranding

Fine wire according to VDE 0295
Class 5/ IEC 60228 Class 5



Minimum bending radius

Occasional flexing: 15 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage

Power cores and control cores:
IEC U0/U: 600/1000 V
UL & CSA: 1000 V



Test voltage

Core/Core: 4 kV
Core/Screen: 4 kV



Protective conductor

G = with GN-YE protective conductor



Temperature range

Occasional flexing:
-5°C to +70°C (UL: +80°C)
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm) approx.	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 719 CY				
1020010	4 G 1,5	8.4	83	130
1020011	4 G 2,5	9.9	125	190
1020012	4 G 4	11.7	191	273
1020013	4 G 6	13.7	290	394
1020014	4 G 10	16.7	452	581
1020015	4 G 16	20.1	721	884
1020016	4 G 25	24.3	1100	1348
1020017	4 G 35	27.7	1548	1840
1020018	4 G 50	33.7	2151	2645
1020040	4 G 0,75 + (2 x 0,5)	8.9	78	159
1020041	4 G 1 + (2 x 0,5)	9.3	88	147
1020044	4 G 1 + (2 x 1,0)	10.2	107	204
1020042	4 G 1,5 + (2 x 0,5)	10.3	111	180
1020045	4 G 1,5 + (2 x 1,0)	10.8	130	230
1020053	4 G 1,5 + (3 x 1,0)	11.5	145	225
1020019	4 G 1,5 + (2 x 1,5)	11.5	146	242
1020043	4 G 2,5 + (2 x 0,5)	11.7	158	247
1020046	4 G 2,5 + (2 x 1,0)	12.1	173	293
1020054	4 G 2,5 + (3 x 1,0)	12.9	188	290
1020020	4 G 2,5 + (2 x 1,5)	12.9	189	306
1020047	4 G 4 + (2 x 1,0)	14.3	250	373
1020055	4 G 4 + (3 x 1,0)	14.8	270	402
1020021	4 G 4 + (2 x 1,5)	15.0	271	420

Article number	Number of cores and mm ² per conductor	Outer diameter (mm) approx.	Copper index (kg/km)	Weight (kg/km)
1020048	4 G 6 + (2 x 1,0)	16.0	334	485
1020022	4 G 6 + (2 x 1,5)	17.0	351	529
1020056	4 G 6 + (3 x 1,5)	17.0	370	537
1020049	4 G 10 + (2 x 1,0)	18.8	526	712
1020023	4 G 10 + (2 x 1,5)	19.5	540	752
1020057	4 G 10 + (3 x 1,5)	19.5	559	758
1020050	4 G 16 + (2 x 1,0)	22.3	772	991
1020058	4 G 16 + (3 x 1,5)	23.0	805	1151
1020024	4 G 0,75 + 2 x (2 x 0,34)	9.7	99	163
1020035	4 G 1 + 2 x (2 x 0,75)	11.3	126.4	207
1020025	4 G 1,5 + 2 x (2 x 0,75)	12.3	150	245
1020026	4 G 2,5 + 2 x (2 x 1,0)	14.7	223	357
1020027	4 G 4 + 2 x (2 x 1,0)	16.4	288	452
1020028	4 G 4 + (2 x 1,0) + (2 x 1,5)	16.6	307	469
1020029	4 G 6 + (2 x 1,0) + (2 x 1,5)	18.5	421	617
1020030	4 G 10 + (2 x 1,0) + (2 x 1,5)	22.1	588	852
1020031	4 G 16 + 2 x (2 x 1,5)	25.0	876	1162
1020032	4 G 25 + 2 x (2 x 1,5)	28.7	1227	1590
1020033	4 G 35 + 2 x (2 x 1,5)	30.6	1652	2023
1020034	4 G 50 + 2 x (2 x 2,5)	37.0	2264	2876

Unless specified otherwise, the shown product values are nominal values. 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

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ÖLFLEX® SERVO 728 CY

Screened encoder cable with PVC outer sheath for static use - certified



Info

- Successor of ÖLFLEX® SERVO 720 CY
- Fits to various encoder systems

Benefits

- Suitable for use with encoders & resolvers from leading manufacturers
- Thin, optimised for weight and volume
- Multi-standard certification reduces part varieties and saves costs
- Easy to install

Application range

- Analogue and incremental encoders in servo drives
- For static and occasionally flexible use
- Measurement, control and electrical applications
- Industrial machinery and plant engineering
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Product features

- Flammability: UL/CSA: VW-1, FT1 IEC/EN: 60332-1-2
- Low attenuation ensures a longer transmission distance
- Oil-resistant

Norm references / Approvals

- UL AWM Style 2464
- CUL AWM I/II A/B FT1
- UL File No. E63634

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation: polypropylene (PP)
- Cores (or core pairs) twisted in layers or bundles
- Refer to data sheet for more details
- Non-woven wrapping
- PVC jacket, green (RAL 6018)

Technical data

- Core identification code**
Details see datasheet
ÖLFLEX® SERVO 728 CY
- Conductor stranding**
Fine wire acc. to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²
- Minimum bending radius**
Occasional flexing: 15 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
IEC: 30 V
UL & CSA: 300 V
- Test voltage**
C/C: 2000 V
C/S: 1000 V
- Temperature range**
Occasional flexing:
-5°C to +70°C (UL: +80°C)
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 728 CY				
1020100	10x0,14+2x0,5	7.0	41	84
1020101	10x0,14+4x0,5	7.6	53	101
1020102	15x0,14+4x0,5	7.6	68	115
1020133	4x2x0,14+4x0,5	7.9	58	97
1020134	7x2x0,14+2x0,5	8.5	60	115
1020110	4x2x0,34+4x0,5	8.3	79	129
1020111	3x(2x0,14)+4x0,14+2x0,5	8.2	68	120
1020135	3x(2x0,14)+ 4x0,14+2x0,5+4x0,22	9.7	80	160
1020120	4x2x0,25+2x0,5	7.9	59	103
1020121	4x2x0,25+2x1,0	7.6	63	112
1020122	4x2x0,14+4x1,0+(4x0,14)	9.0	110	155
1020130	3x(2x0,14)+2x(0,5)	9.0	87	140
1020131	3x(2x0,14)+(3x0,14)	9.2	41	115
1020132	4x(2x0,14)+(2x1,0)	10.4	84	145
1020140	5x2x0,25	7.4	50	96
1020141	6x2x0,25	8.0	60	114

Unless specified otherwise, the shown product values are nominal values. 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

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).

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Similar products

- ÖLFLEX® SERVO FD 798 CP refer to page 111
- Special Encoder and resolver cables refer to page 117
- SERVO cables in acc. to SIEMENS® Standard 6FX 5008- (see online catalogue)

Accessories

- EPIC® SIGNAL M23 Housings
- EPIC® SIGNAL M23 Inserts
- EPIC® SIGNAL M23 Contacts, tools, accessories



ÖLFLEX® SERVO 7DSL

Low capacitive hybrid servo cable with PVC outer sheath for static use - certified for North America

LAPP KABEL STUTTGART ÖLFLEX® SERVO 7DSL CE



Info

- Suitable for SCS open link and ACURO®link
- Suitable for Hiperface DSL® motor-feedback systems
- EMC-compliant

Benefits

- Only one connection line between drive and motor-feedback system. Instead of the encoder cable an integrated DSL pair takes over the signalling.
- Less cables and reduced connection costs
- Space and weight savings thanks to hybrid cable design
- Multi-standard certification reduces part varieties and saves costs
- Easy to install

Application range

- For fixed installation or applications with occasional movements
- Power drive systems in automation engineering
- Connecting cable between servo controller and motor
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines

Product features

- Maximum DSL transmission length: 100m
- Flammability:
UL/CSA: VW-1, FT1
IEC/EN: 60332-1-2
- Oil-resistant
- Low-capacitance design
- EMC-optimised design

Norm references / Approvals

- USA: UL AWM Style 2570
Canada: cUL AWM Style I/II A/B FT1
- UL File No. E63634

Product Make-up

- Fine-wire, bare copper conductor (power cores and control pair) and 7-wire, tinned copper conductor (signal pair)
- Core insulation: polypropylene (PP)
- Individual design depending on the item: power cores without or with one screened control pair and one DSL signal pair twisted together
- Tinned-copper braiding
- PVC outer sheath, orange (RAL 2003)

Technical data



Classification ETIM 5/6

ETIM 5.0/6.0 Class-ID: EC000104
ETIM 5.0/6.0 Class-Description:
Control cable



Core identification code

Power cores: black with marking
U/L1/C/L+; V/L2; W/L3/D /L-; GN/
YE protective conductor
Signal pair: white, blue
Control pair (optional): black with white numbers 5 + 6



Conductor stranding

Fine wire according to VDE 0295
Class 5/ IEC 60228 Class 5
DSL pair: 7-wired



Minimum bending radius

For flexible use:
15 x outer diameter
Fixed installation: 5 x outer diameter



Nominal voltage

Power and control:
IEC: U0/U: 600/1000 V
UL: 1000 V
Signal pair: 300 V



Test voltage

Power and control: 4 kV
Signal pair: 1kV



Protective conductor

G = with GN-YE protective conductor



Temperature range

Flexing: -5°C to +70°C (UL: +80°C)
Fixed installation: -40°C to +70°C
(UL: +80°C)

Article number	Number of cores and mm ² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
Hybrid cables for fixed installation				
1023290	4 G 1,5 + (2 x 22AWG)	11.2	110	194
1023291	4 G 2,5 + (2 x 22AWG)	12.6	148	253
1023292	4 G 4 + (2 x 22AWG)	14.0	208	332
1023293	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13.2	140	250
1023294	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.0	185	285
1023295	4 G 4 + (2 x 1,0) + (2 x 22AWG)	15.8	248	390

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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
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Similar products

- ÖLFLEX® SERVO 719 CY refer to page 100

Accessories

- Protective cable conduit systems and cable carrier systems
- Circular connectors