



New

ÖLFLEX® HEAT 125 SC

VDE tested single cores according to EN 50525-3-41 (H05Z-K & H07Z-K) for more demanding requirements

Info

- Substitutes previous ÖLFLEX® HEAT 145 SC, H05Z-K 110 °C & H07Z-K 110 °C
- VDE-tested and -marked
- Improved characteristics in the event of a fire

Technical data

Classification
ETIM 5.0 Class-ID: EC000993
ETIM 5.0 Class-Description: Single core cable

Core identification code
refer to article table

Conductor stranding
Fine wire acc. to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
Up to 1.0mm² U₀/U 300/500 V
From 1.5mm² U₀/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation

Test voltage
3500 V

Temperature range
Fixed installation: -55 °C to +125 °C
Short-term: up to +145 °C

- **Benefits**
 - For safety in areas with high density of people
 - Reduction of flame propagation, density and toxicity of smoke gases in event of fire
 - Minimises damage to buildings and equipment caused by the formation of toxic acid fumes in fires
 - Certified for maritime applications
- **Application range**
 - For the wiring and connection of lighting, heating appliances, control cabinets, and distributors in mechanical and plant engineering
 - For installation in tubes, on, in and under plaster as well as in closed installation ducts
- **Product features**
 - Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - Low smoke density (IEC 61034-2)
 - Flame-retardant (IEC 60332-1-2)
 - Low toxicity (EN 50305)
 - Extended fire behaviour:
 - H05Z-K (0,5mm² up to 1,0mm²): see data sheet
 - H07Z-K (≥ 1,5mm²): no fire propagation according to IEC 60332-3-24 respectively IEC 60332-3-25
 - Abrasion and notch-resistant
- **Norm references / Approvals**
 - According to EN 50525-3-41 with advanced features
 - GL (Germanischer Lloyd)
- **Product make-up**
 - Fine-wire, tinned-copper conductor
 - Electron beam cross-linked polyolefin copolymer insulation

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow	orange
ÖLFLEX® HEAT 125 SC - H05Z-K									
0.5	2.2	4.8	8.0	1232003	1232001	1232106	1232002	1232000	1232009
0.75	2.4	7.2	11.0	1233003	1233001	1233106	1233002	1233000	1233009
1	2.5	9.6	14.0	1234003	1234001	1234106	1234002	1234000	
ÖLFLEX® HEAT 125 SC - H07Z-K									
1.5	3.0	14.4	21.0	1235003	1235001	1235106	1235002	1235000	1235009
2.5	3.6	24.0	33.0	1236003	1236001	1236106	1236002	1236000	1236009
4	4.3	38.4	49.0	1237003	1237001	1237106	1237002	1237000	1237009
6	4.8	57.6	67.0	1238003	1238001	1238106	1238002	1238000	
10	6.2	96.0	112.0	1239003	1239001		1239002	1239000	
16	7.2	153.6	172.0		1240001		1240002	1240000	
25	8.9	240.0	262.0		1241001			1241000	
35	10.1	336.0	362.0		1242001			1242000	
50	12.5	480.0	512.0		1243001			1243000	
70	14.2	672.0	710.0		1244001			1244000	
95	16.6	912.0	937.0		1245001				
120	18.2	1,152.0	1,159.0		1246001				
150	20.6	1,440.0	1,447.0		1247001			1247000	
185	22.5	1,776.0	1,790.0		1248001				
240	26.4	2,304.0	2,318.0		1249001				

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Dark blue	white	green	yellow	violet	red
ÖLFLEX® HEAT 125 SC - H05Z-K									
0.5	2.2	4.8	8.0	1232114	1232105	1232006	1232005	1232007	1232104
0.75	2.4	7.2	11.0	1233114	1233105	1233006	1233005	1233007	1233104
1	2.5	9.6	14.0	1234114	1234105	1234006	1234005	1234007	1234104
ÖLFLEX® HEAT 125 SC - H07Z-K									
1.5	3.0	14.4	21.0	1235114	1235105	1235006	1235005	1235007	1235104
2.5	3.6	24.0	33.0	1236114	1236105	1236006	1236005	1236007	1236104
4	4.3	38.4	49.0	1237114	1237105				1237104
6	4.8	57.6	67.0	1238114					1238104
10	6.2	96.0	112.0						1239104
16	7.2	153.6	172.0						1240104

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. 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 are not to scale and do not represent detailed images of the respective products.
 Cross-section 0.25 mm² only available as 300 m box Cross-section 0.5 mm² only available as 200 m box Cross-section 1.0 - 4 mm² only available as 100 m box
 Article number index of core colours: 000 = green-yellow / 001 = black/ 002 = blue/ 114 = dark blue / 003 = brown / 005 = yellow / 006 = green / 007 = violet / 009 = orange / 104 = red / 105 = white / 106 = grey

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Various applications

PVC outer sheath and coloured cores

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Harsh conditions

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Torsion, articulated robot, approved

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			Type F Charging socket 3-way	New 252
			CEE charging socket 3-way	New 252
			CEE charging socket 5-way	New 252

Various applications

PVC outer sheath and coloured cores

ÖLFLEX® CLASSIC 100



Info

- Up to 5 cores and 1.5 mm²: new items with reduced core insulation thickness
- Customised colour option and printing on the outer sheath are available upon request

Benefits

- Space-saving installation due to small cable diameters
- High electrical performance due to 4 kV test voltage
- High flexibility due to short-twisted conductor layers

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
Power stations
- Dry or damp rooms that are subject to medium mechanical loads
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance see Appendix T1

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- Cores twisted in layers
- PVC outer sheath, grey (RAL 7001)

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: ÖLFLEX® colour code, refer to Appendix T7



Based on

IEC 60227-5
HD 21.5 S3; VDE 0281 Part 5
HD 21.13 S1; VDE 0281 Part 13



Specific insulation resistance

> 20 GOhm x cm



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

Up to 1.5 mm²: U₀/U: 300/500 V
From 2.5 mm²: U₀/U: 450/750 V
From 2.5 mm², in the case of fixed and protected installations: U₀/U: 600/1000 V



Test voltage

4000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Occasional flexing: -5°C to +70°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® CLASSIC 100; U₀/U: 300/500 V				
00100004	2 X 0.5	4.8	9.6	35
00100014	3 G 0.5	5.1	14.4	42
00101224	3 X 0.5	5.1	14.4	42
00100024	4 G 0.5	5.7	19.2	54
00101234	4 X 0.5	5.7	19.2	54
00100034	5 G 0.5	6.2	24.0	63
00101244	5 X 0.5	6.2	24.0	63
0010004	6 G 0.5	6.7	28.8	73
0010005	7 G 0.5	6.7	33.6	81
0010006	8 G 0.5	8.0	38.4	97
0010007	10 G 0.5	8.6	48.0	116
0010008	12 G 0.5	8.9	58.0	133
0010009	14 G 0.5	9.5	67.0	151
0010010	16 G 0.5	10.0	76.0	169
0010011	21 G 0.5	11.7	99.0	223
0010012	24 G 0.5	12.4	114.0	254
0010016	40 G 0.5	15.4	192.0	404
00100214	2 X 0.75	5.4	14.4	45
00100224	3 G 0.75	5.7	21.6	55
00101254	3 X 0.75	5.7	21.6	55
00100234	4 G 0.75	6.2	28.8	66
00101264	4 X 0.75	6.2	28.8	66
00100244	5 G 0.75	6.7	36.0	79
00101274	5 X 0.75	6.7	36.0	79
0010025	6 G 0.75	7.3	43.3	104
0010026	7 G 0.75	7.3	50.4	109
0010027	8 G 0.75	8.8	56.0	123

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0010028	9 G 0.75	9.4	63.0	144
0010029	10 G 0.75	9.6	72.0	153
0010030	12 G 0.75	9.9	86.4	176
0010031	15 G 0.75	10.9	108.0	211
0010032	18 G 0.75	11.7	129.6	268
0010033	21 G 0.75	13.0	151.0	293
0010034	25 G 0.75	13.8	180.0	374
0010036	40 G 0.75	17.3	288.0	571
0010037	50 G 0.75	19.2	360.0	698
00100414	2 X 1.0	5.7	19.2	53
00100424	3 G 1.0	6.0	28.8	65
00102034	3 X 1.0	6.0	28.8	65
00100434	4 G 1.0	6.5	38.4	79
00102044	4 X 1.0	6.5	38.4	79
00100444	5 G 1.0	7.1	48.0	94
00102054	5 X 1.0	7.1	48.0	94
0010045	6 G 1.0	8.0	58.0	124
0010046	7 G 1.0	8.0	67.0	131
0010047	8 G 1.0	9.5	77.0	146
0010049	10 G 1.0	10.2	96.0	183
0010050	12 G 1.0	10.5	115.0	215
0010052	16 G 1.0	11.8	154.0	282
0010053	18 G 1.0	12.7	173.0	315
0010054	20 G 1.0	13.4	192.0	350
0010056	25 G 1.0	14.7	240.0	449
00100634	2 X 1.5	6.3	28.8	68
00100644	3 G 1.5	6.7	43.2	84
00101284	3 X 1.5	6.7	43.2	84

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
00100654	4 G 1.5	7.2	57.6	104
00101294	4 X 1.5	7.2	57.6	104
00100664	5 G 1.5	8.1	72.0	128
00101304	5 X 1.5	8.1	72.0	128
0010068	7 G 1.5	8.9	101.0	166
0010069	8 G 1.5	10.6	115.0	205
0010071	12 G 1.5	12.0	173.0	307
0010072	14 G 1.5	12.7	202.0	349
0010074	18 G 1.5	14.4	259.0	465
0010076	25 G 1.5	16.9	360.0	655
ÖLFLEX® CLASSIC 100; U_n/U_i: 450/750 V				
0010086	2 X 2.5	8.9	48.0	128
0010087	3 G 2.5	9.6	72.0	162
00100933	3 X 2.5	9.6	72.0	162
00100883	4 G 2.5	10.7	96.0	203
00100893	5 G 2.5	11.8	120.0	242
0010091	7 G 2.5	13.1	168.0	321
0010092	8 G 2.5	15.8	192.0	385
0010100	2 X 4	10.6	76.8	187
0010210	3 G 4	11.4	115.2	244
00101013	4 G 4	12.7	154.0	297
00101023	5 G 4	13.9	192.0	355
0010103	7 G 4	15.4	269.0	471
0010105	3 G 6	12.6	173.0	318
00101063	4 G 6	13.8	230.0	394
00101073	5 G 6	15.6	288.0	489

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0010108	7 G 6	17.3	403.0	651
0010301	3 G 10	15.9	288.0	516
00101093	4 G 10	17.6	384.0	650
00101103	5 G 10	19.7	480.0	792
0010111	7 G 10	21.7	672.0	1058
0010302	3 G 16	18.3	461.0	728
00101123	4 G 16	20.4	614.0	1087
00101133	5 G 16	22.8	768.0	1118
0010303	3 G 25	23.0	720.0	1388
00101153	4 G 25	25.4	960.0	1582
00101163	5 G 25	28.5	1,200.0	1771
0010304	3 G 35	25.6	1,008.0	1766
00101173	4 G 35	28.5	1,344.0	2106
00101183	5 G 35	31.9	1,680.0	2635
0010305	3 G 50	31.0	1,440.0	2556
00101193	4 G 50	34.5	1,920.0	2943
00103133	5 G 50	38.6	2,400.0	3936
0010306	3 G 70	35.3	2,016.0	3182
00101203	4 G 70	39.4	2,688.0	4092
00103143	5 G 70	44.1	3,360.0	4800
0010307	3 G 95	41.3	2,736.0	4675
00101213	4 G 95	45.8	3,648.0	5290
00103153	5 G 95	51.6	4,560.0	5600
0010308	3 G 120	47.6	3,456.0	5626
00103093	4 G 120	53.1	4,608.0	6994
00103123	4 G 185	62.8	7,104.0	8300

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 Single lengths for sizes: ≥ 5G50 max. 500 m; ≥ 5G95 max. 400; ≥ 3G120 max. 500 m; ≥ 4G185 max. 300; ≥ 4G185 max. 250 m
 Photographs are not to scale and do not represent detailed images of the respective products.

- **Similar products**
- UNITRONIC® 100 refer to page 256
 - ÖLFLEX® CLASSIC 100 BK POWER 0,6/1kV refer to page 27
 - ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59

- **Accessories**
- SKINTOP® CLICK refer to page 654
 - TY - FAST® standard cable ties refer to page 955
 - STAR STRIP stripping tool refer to page 906

Various applications

PVC outer sheath and coloured cores

ÖLFLEX® CLASSIC 100 YELLOW

Yellow outer sheath for special warning purposes



Info

- For warning purposes

Benefits

- High electrical performance due to 4 kV test voltage

Application range

- For electrical circuits that remain 'live' after the main switch has been disconnected
- Service sockets and illumination circuits in electrical switchboards and cabinets

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance see Appendix T1

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC outer sheath, yellow (RAL 1016)

Technical data



Core identification code
VDE 0293-308, refer to Appendix T9



Based on
IEC 60227-5
HD 21.5 S3; VDE 0281 Part 5
HD 21.13 S1; VDE 0281 Part 13



Specific insulation resistance
> 20 GOhm x cm



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
U0/U: 450/750 VAC
In protected and fixed installations:
U0/U: 600/1000 V



Test voltage
4000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Occasional flexing: -5°C to +70°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® CLASSIC 100 YELLOW; U₀/U: 450/750 V				
0010400	3 G 1.5	8.1	43.0	95
00104023	4 G 1.5	8.9	58.0	117
00104033	5 G 1.5	10.0	72.0	144
0010401	3 G 2.5	9.6	72.0	152
00104043	4 G 2.5	10.7	96.0	205
00104053	5 G 2.5	11.8	120.0	225

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 450 P refer to page 73
- ÖLFLEX® 540 P refer to page 75

Accessories

- SKINTOP® CLICK refer to page 654
- STAR STRIP stripping tool refer to page 906

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® CLASSIC 100 CY



Info

- EMC-compliant



Benefits

- Space-saving installation due to small cable diameters
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Conveyor and transport systems
- Servo drives
- In EMC-sensitive environments (electromagnetic compatibility)

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance see Appendix T1
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC inner sheath, grey
- Tinned-copper braiding
- PVC outer sheath, transparent

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: ÖLFLEX® colour code, refer to Appendix T7
- Based on**
IEC 60227-5
HD 21.5 S3; VDE 0281 Part 5
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
Up to 1.0 mm²: U₀/U: 300/500 V
From 1.5 mm²: U₀/U: 450/750 V
Fixed, protected installation:
U₀/U: 600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°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® CLASSIC 100 CY; U₀/U: 300/500 V				
0035001	2 X 0.5	7.0	41.0	75
0035002	3 G 0.5	7.3	46.0	83
00350033	4 G 0.5	7.9	55.0	99
00352013	5 G 0.5	8.4	66.0	112
0035202	7 G 0.5	8.9	80.0	132
0035004	2 X 0.75	7.4	46.0	86
0035005	3 G 0.75	7.9	57.0	100
00350063	4 G 0.75	8.4	64.0	115
00350163	5 G 0.75	8.9	77.0	130
0035203	7 G 0.75	9.7	102.0	161
0035220	2 X 1.0	7.9	56.0	98
0035221	3 G 1.0	8.2	65.0	111
00352223	4 G 1.0	8.7	78.0	130
00352233	5 G 1.0	9.5	89.0	153
0035204	7 G 1.0	10.2	113.0	185
ÖLFLEX® CLASSIC 100 CY; U₀/U: 450/750 V				
0035000	2 X 1.5	9.9	65.0	132
0035458	3 G 1.5	10.3	79.0	170
00354593	4 G 1.5	11.3	97.0	204
00354603	5 G 1.5	12.6	116.0	246
0035461	7 G 1.5	13.9	149.0	320
0035011	3 G 2.5	11.8	146.0	211
00350173	4 G 2.5	13.5	167.0	310

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
00350123	5 G 2.5	14.6	200.0	326
0035289	7 G 2.5	15.9	288.0	444
00350183	4 G 4	15.1	237.0	403
00350133	5 G 4	16.5	328.0	478
00350193	4 G 6	16.6	318.0	521
00350143	5 G 6	18.2	441.0	624
0034953	3 G 10	18.9	414.0	690
00350213	4 G 10	21.1	558.0	843
00352903	5 G 10	23.1	714.0	1004
0034954	3 G 16	21.7	607.0	910
00350223	4 G 16	23.9	804.0	1164
00350153	5 G 16	26.8	1,050.0	1812
0034955	3 G 25	26.6	936.0	1330
00350233	4 G 25	29.4	1,289.0	1903
00350243	5 G 25	32.6	1,446.0	2374
0034956	3 G 35	29.4	1,258.0	1370
00350253	4 G 35	32.4	1,693.0	2489
00350263	5 G 35	36.0	1,975.0	2771
0034952	3 G 50	35.1	1,748.0	2590
00350273	4 G 50	38.8	2,342.0	3362
00350283	4 G 70	43.7	3,035.0	3719
00350293	4 G 95	50.4	4,055.0	5849
00354303	4 G 120	56.8	5,225.0	7509
00354313	4 G 150	62.2	6,300.0	7800
00354323	4 G 185	67.8	7,753.0	9866

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).
Single lengths for sizes: ≥ 4G50 max. 500 m; ≥ 4G95 max. 400 m; ≥ 4G120 max. 300 m; ≥ 4G150 max. 250 m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 9YSLCY-JB refer to page 92
- ÖLFLEX® SERVO 2YSLCY-JB refer to page 90

Accessories

- 3M Scotch™ 1183 screening tape refer to page 944
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® CLASSIC 100 SY



Info

- With steel wire braiding

Benefits

- Extra mechanical protection due to braided steel wire

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Areas with high mechanical stress

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance
see Appendix T1

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8 / 1
- PVC inner sheath, grey
- Braid of galvanized steel wires
- PVC outer sheath, transparent

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: ÖLFLEX® colour code, refer to Appendix T7



Based on

IEC 60227-5
HD 21.5 S3; VDE 0281 Part 5
HD 21.13 S1; VDE 0281 Part 13



Specific insulation resistance

> 20 GOhm x cm



Conductor stranding

Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius

Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage

Up to 1.5 mm²: U₀/U: 300/500 V
From 2.5 mm²: U₀/U: 450/750 V
From 2.5 mm², in the case of fixed and protected installations: U₀/U: 600/1000 V



Test voltage

4000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Occasional flexing: -5 °C to +70 °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® CLASSIC 100 SY; U₀/U: 300/500 V				
0016022	2 X 0.75	8.2	14.4	97
0016023	3 G 0.75	8.5	21.6	108
00160243	4 G 0.75	9.2	28.8	126
00160253	5 G 0.75	9.7	36.0	146
0016027	7 G 0.75	10.3	50.0	172
0016031	12 G 0.75	12.9	86.0	260
0016042	2 X 1.0	8.5	19.2	137
0016043	3 G 1.0	8.8	29.0	154
00160443	4 G 1.0	9.5	38.4	180
00160453	5 G 1.0	10.1	48.0	202
0016047	7 G 1.0	11.0	67.0	242
0016057	25 G 1.0	18.1	240.0	653
0016064	2 X 1.5	9.3	29.0	172
0016065	3 G 1.5	9.7	43.0	191
00160663	4 G 1.5	10.2	58.0	217
00160673	5 G 1.5	11.1	72.0	268
0016069	7 G 1.5	11.9	101.0	311
0016072	12 G 1.5	15.4	173.0	499
0016075	18 G 1.5	17.6	259.0	652
0016077	25 G 1.5	20.3	360.0	913
0016078	32 G 1.5	22.1	461.0	1065

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 SY; U₀/U: 450/750 V				
0016087	2 X 2.5	12.1	48.0	245
0016088	3 G 2.5	12.6	72.0	278
00160893	4 G 2.5	13.9	96.0	339
00160903	5 G 2.5	15.2	120.0	397
0016092	7 G 2.5	16.3	168.0	470
0016101	2 X 4	13.6	76.8	329
00161023	4 G 4	15.7	154.0	457
00161033	5 G 4	17.1	192.0	545
0016106	3 G 6	15.8	173.0	544
00161073	4 G 6	17.2	230.0	687
00161083	5 G 6	18.8	288.0	798
00161103	4 G 10	21.3	384.0	1009
00161113	5 G 10	23.3	480.0	1197
00161133	4 G 16	24.1	614.0	1384
00161143	5 G 16	26.8	768.0	1740
00161163	4 G 25	29.4	960.0	2021
00161173	5 G 25	32.6	1,200.0	2464
00161183	4 G 35	32.4	1,344.0	2570
00161193	5 G 35	36.0	1,680.0	3185
00161203	4 G 50	38.8	1,920.0	3514

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).

Single lengths for sizes: ≥ 4G35 max. 500 m; ≥ 4G95 max. 400 m

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

Similar products

- ÖLFLEX® CLASSIC 110 SY refer to page 34

Accessories

- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX® CLASSIC 100 BK POWER 0,6/1kV



Info

- Down to -30°C, also suitable for outdoor use
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396



Benefits

- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
- Industrial machinery
- Heating and air-conditioning systems
- Spray-painting lines
- Stage technology
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load
- Suitable for outdoor applications
- Suitable for direct burial

Product features

- Flame-retardant according to IEC 60332-1-2
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396
- Flexible down to -30°C

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC, cold-resistant
- PVC outer sheath, cold-resistant, black (RAL 9005)

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: ÖLFLEX® colour code, refer to Appendix T7
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -30 °C to +70 °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® CLASSIC 100 BK POWER 0,6/1 kV				
1120456	2 X 1.0	8.6	19.2	98
1120457	3 G 1.0	9.0	29.0	112
1120458	4 G 1.0	9.6	38.0	131
1120459	5 G 1.0	10.4	48.0	152
1120462	2 X 1.5	9.6	29.0	123
1120463	3 G 1.5	10.1	43.0	144
1120464	4 G 1.5	10.8	58.0	170
1120465	5 G 1.5	11.7	72.0	199
1120468	2 X 2.5	10.8	48.0	147
1120469	3 G 2.5	11.3	72.0	182
1120470	4 G 2.5	12.2	96.0	225
1120471	5 G 2.5	13.3	120.0	266
1120474	4 G 4	13.8	154.0	324
1120475	4 G 6	15.1	230.0	442
1120476	4 G 10	18.7	384.0	707
1120477	4 G 16	21.3	614.0	1100
1120478	4 G 25	26.2	960.0	1600
1120479	4 G 35	29.1	1,344.0	2400
1120480	4 G 50	35.6	1,920.0	3400
1120481	4 G 70	40.7	2,688.0	5050
1120482	4 G 95	46.8	3,648.0	6010
1120483	4 G 120	53.5	4,608.0	7500

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).

Other sizes and screened types are available upon request.

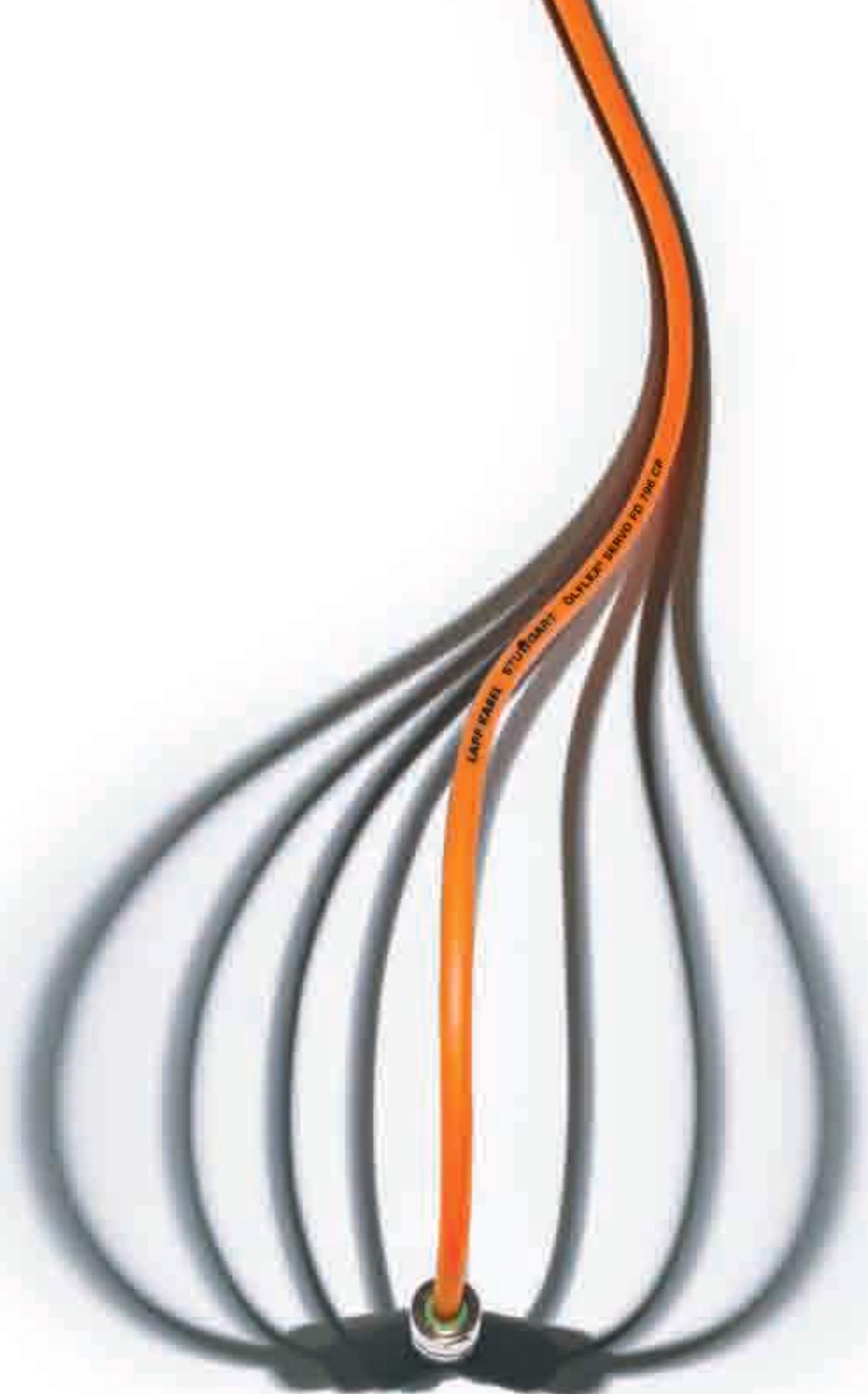
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59
- ÖLFLEX® CLASSIC 110 BLACK 0,6/1kV refer to page 35

Accessories

- FLEXIMARK® Stainless steel kit refer to page 872
- SKINTOP® MS-M refer to page 662



LANE KABEL STUURBOORD OLYMPIA BUREAU PD 196 CP

ÖLFLEX® CLASSIC 110



Info

- VDE certificate of conformity with factory surveillance



Benefits

- Space-saving installation due to small cable diameters
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
Power stations
Stage applications
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load
- Dry or damp rooms that are subject to medium mechanical loads

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance see Appendix T1

Approvals



- Remark: A RoHS-non-compliant version is marketed under ÖLFLEX® 110 with VDE-REG.-Nr. 8067. To order this, please add appendix <1> to the below stated part numbers. This does not affect the above given further technical data or description.

Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- Cores twisted in layers
- PVC outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C
- VDE-tested**
VDE reg. no. 7030 for the following sizes:
up to 2.5 mm²: 2 - 65 cores
from 4 mm²: 2 - 7 cores

Article number	Number of cores and mm ² per conductor	Standard lengths, metre							Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
		25	50	100	200	300	500	1000			
ÖLFLEX® CLASSIC 110											
1119752	2 X 0.5			100	200	300	500	1000	4.8	9.6	35
1119003	3 G 0.5			100	200	300	500	1000	5.1	14.4	42
1119753	3 X 0.5			100	200	300	500	1000	5.1	14.4	42
1119004	4 G 0.5			100	200	300	500	1000	5.7	19.2	54
1119754	4 X 0.5			100	200	300	500	1000	5.7	19.2	54
1119005	5 G 0.5			100	200	300	500	1000	6.2	24.0	63
1119755	5 X 0.5			100	200	300	500	1000	6.2	24.0	63
1119007	7 G 0.5		50	100	200	300	500	1000	6.7	33.6	81
1119757	7 X 0.5		50	100	200	300	500	1000	6.7	33.6	81
1119010	10 G 0.5		50	100	200	300	500	1000	8.6	48.0	116
1119012	12 G 0.5		50	100	200	300	500	1000	8.9	58.0	131
1119014	14 G 0.5		50	100			500	1000	9.5	67.0	153
1119018	18 G 0.5		50	100			500	1000	10.5	86.4	188
1119021	21 G 0.5		50	100			500	1000	11.7	101.0	221
1119025	25 G 0.5		50	100			500	1000	12.4	120.0	261
1119030	30 G 0.5		50	100			500	1000	13.3	144.0	304
1119035	35 G 0.5		50	100			500	1000	14.5	168.0	356
1119040	40 G 0.5		50	100			500	1000	15.4	192.0	400
1119052	52 G 0.5		50	100			500		17.3	250.0	517
1119061	61 G 0.5		50	100			500		18.5	293.0	603
1119065	65 G 0.5		50	100			500		19.6	312.0	644
1119080	80 G 0.5		50	100			500		21.1	384.0	780
1119100	100 G 0.5		50	100			500		23.6	480.0	975
1119802	2 X 0.75			100	200	300	500	1000	5.4	14.4	45
1119103	3 G 0.75			100	200	300	500	1000	5.7	21.6	55
1119803	3 X 0.75			100	200	300	500	1000	5.7	21.6	55
1119104	4 G 0.75			100	200	300	500	1000	6.2	28.8	66
1119804	4 X 0.75			100	200	300	500	1000	6.2	28.8	66
1119105	5 G 0.75		50	100	200	300	500	1000	6.7	36.0	79
1119805	5 X 0.75		50	100	200	300	500	1000	6.7	36.0	79
1119107	7 G 0.75		50	100	200	300	500	1000	7.3	50.0	101
1119807	7 X 0.75		50	100	200	300	500	1000	7.3	50.0	101
1119109	9 G 0.75		50	100	200	300	500	1000	9.4	65.0	137
1119110	10 G 0.75		50	100	200	300	500	1000	9.6	72.0	150
1119112	12 G 0.75		50	100	200	300	500	1000	9.9	86.0	171
1119812	12 X 0.75		50	100	200	300	500	1000	9.9	86.0	171
1119115	15 G 0.75		50	100			500	1000	10.9	108.0	209
1119117	15 X 0.75		50	100			500	1000	10.9	108.0	209
1119116	16 G 0.75		50	100			500	1000	11.1	115.2	220
1119118	18 G 0.75		50	100			500	1000	11.7	130.0	244
1119121	21 G 0.75		50	100			500	1000	13.0	151.0	286
1119125	25 G 0.75		50	100			500	1000	13.8	180.0	337
1119126	26 G 0.75		50	100			500	1000	14.2	187.2	350
1119134	34 G 0.75		50	100			500	1000	15.9	245.0	448
1119141	41 G 0.75		50	100			500	1000	17.4	296.0	538
1119150	50 G 0.75		50	100			500		19.2	360.0	648
1119151	51 G 0.75		50	100			500		19.2	367.0	646
1119161	61 G 0.75		50	100			500		20.5	439.0	779
1119165	65 G 0.75		50	100			500		21.8	468.0	832
1119180	80 G 0.75		50	100			500		23.6	576.0	1019

Various applications

PVC outer sheath and numbered cores

Article number	Number of cores and mm ² per conductor	Standard lengths, metre							Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
		25	50	100	200	300	500	1000			
1119200	100 G 0.75		50	100				500	26.4	718.0	1271
1119852	2 X 1.0			100	200	300	500	1000	5.7	19.2	53
1119203	3 G 1.0			100	200	300	500	1000	6.0	28.8	65
1119853	3 X 1.0			100	200	300	500	1000	6.0	28.8	65
1119204	4 G 1.0		50	100	200	300	500	1000	6.5	38.4	79
1119854	4 X 1.0		50	100	200	300	500	1000	6.5	38.4	79
1119205	5 G 1.0		50	100	200	300	500	1000	7.1	48.0	94
1119855	5 X 1.0		50	100	200	300	500	1000	7.1	48.0	94
1119206	6 G 1.0		50	100	200	300	500	1000	8.0	58.0	113
1119207	7 G 1.0		50	100	200	300	500	1000	8.0	67.0	126
1119857	7 X 1.0		50	100	200	300	500	1000	8.0	67.0	126
1119208	8 G 1.0		50	100	200	300	500	1000	9.5	77.0	149
1119209	9 G 1.0		50	100	200	300	500	1000	10.0	86.0	164
1119210	10 G 1.0		50	100	200	300	500	1000	10.2	96.0	180
1119212	12 G 1.0		50	100	200	300	500	1000	10.5	115.0	205
1119862	12 X 1.0		50	100	200	300	500	1000	10.5	115.0	205
1119214	14 G 1.0		50	100			500	1000	11.2	134.0	238
1119216	16 G 1.0		50	100			500	1000	11.8	153.6	266
1119218	18 G 1.0		50	100			500	1000	12.7	173.0	320
1119868	18 X 1.0		50	100			500	1000	12.7	173.0	320
1119220	20 G 1.0		50	100			500	1000	13.4	192.0	330
1119870	20 X 1.0		50	100			500	1000	13.4	192.0	330
1119225	25 G 1.0		50	100			500	1000	14.7	240.0	408
1119226	26 G 1.0		50	100			500	1000	15.1	249.0	424
1119234	34 G 1.0		50	100			500	1000	17.1	326.0	551
1119236	36 G 1.0		50	100			500	1000	17.4	346.0	578
1119241	41 G 1.0		50	100			500	1000	18.8	394.0	661
1119250	50 G 1.0		50	100			500		20.6	480.0	797
1119256	56 G 1.0		50	100			500		21.4	538.0	888
1119261	61 G 1.0		50	100			500		22.1	586.0	958
1119265	65 G 1.0		50	100			500		23.6	624.0	1033
1119280	80 G 1.0		50	100			500		25.3	768.0	1251
1119300	100 G 1.0		50	100			500		28.3	960.0	1560
1119902	2 X 1.5			100	200	300	500	1000	6.3	29.0	68
1119303	3 G 1.5	25	50	100	200	300	500	1000	6.7	43.0	84
1119903	3 X 1.5		50	100	200	300	500	1000	6.7	43.0	84
1119304	4 G 1.5	25	50	100	200	300	500	1000	7.2	58.0	104
1119904	4 X 1.5		50	100	200	300	500	1000	7.2	58.0	104
1119305	5 G 1.5	25	50	100	200	300	500	1000	8.1	72.0	128
1119905	5 X 1.5		50	100	200	300	500	1000	8.1	72.0	128
1119306	6 G 1.5		50	100	200	300	500	1000	8.4	86.4	157
1119307	7 G 1.5	25	50	100	200	300	500	1000	8.9	101.0	166
1119907	7 X 1.5		50	100	200	300	500	1000	8.9	101.0	166
1119308	8 G 1.5		50	100			500	1000	10.6	115.0	210
1119313	8 X 1.5		50	100			500	1000	10.6	116.0	210
1119309	9 G 1.5		50	100			500	1000	11.4	130.0	221
1119310	10 G 1.5		50	100			500	1000	11.6	143.0	243
1119311	11 G 1.5		50	100			500	1000	11.6	158.0	258
1119312	12 G 1.5	25	50	100			500	1000	12.0	173.0	279
1119912	12 X 1.5		50	100			500	1000	12.0	173.0	279
1119314	14 G 1.5		50	100			500	1000	12.7	202.0	323
1119316	16 G 1.5		50	100			500	1000	13.4	230.4	361
1119318	18 G 1.5	25	50	100			500	1000	14.4	259.0	407
1119321	21 G 1.5		50	100			500	1000	15.7	302.0	469
1119325	25 G 1.5	25	50	100			500	1000	16.9	360.0	560
1119326	26 G 1.5		50	100			500	1000	17.3	374.4	582
1119332	32 G 1.5		50	100			500	1000	18.7	461.0	704
1119334	34 G 1.5		50	100			500	1000	19.4	490.0	746
1119341	41 G 1.5		50	100			500	1000	21.3	591.0	895
1119350	50 G 1.5		50	100			500		23.5	720.0	1089
1119361	61 G 1.5		50	100			500		25.2	878.0	1309
1119365	65 G 1.5		50	100			500		26.7	936.0	1398
1119952	2 X 2.5	25	50	100	200	300	500	1000	7.5	48.0	101
1119403	3 G 2.5	25	50	100	200	300	500	1000	8.1	72.0	132
1119404	4 G 2.5	25	50	100	200	300	500	1000	8.9	96.0	163
1119405	5 G 2.5	25	50	100	200	300	500	1000	10.0	120.0	200
1119407	7 G 2.5	25	50	100			500	1000	11.1	168.0	267
1119412	12 G 2.5	25	50	100			500	1000	14.8	288.0	445
1119414	14 G 2.5		50	100			500	1000	15.8	336.0	515
1119418	18 G 2.5	25	50	100			500	1000	17.8	432.0	648
1119425	25 G 2.5	25	50	100			500	1000	20.8	600.0	890
1119434	34 G 2.5		50	100			500	1000	24.4	816.0	1208
1119450	50 G 2.5		50	100			500		29.4	1,200.0	1754
1119503	3 G 4	25	50	100			500	1000	9.9	115.0	201
1119504	4 G 4	25	50	100			500	1000	10.8	154.0	249
1119505	5 G 4	25	50	100			500	1000	12.1	192.0	294
1119507	7 G 4	25	50	100			500	1000	13.4	269.0	407
1119511	11 G 4		50	100			500	1000	17.6	422.0	634
1119512	12 G 4		50	100			500	1000	18.1	461.0	660
1119603	3 G 6	25	50	100			500	1000	11.7	172.8	289
1119604	4 G 6	25	50	100			500	1000	13.0	230.0	365
1119605	5 G 6	25	50	100			500	1000	14.5	288.0	447
1119607	7 G 6	25	50	100			500	1000	16.0	403.0	600
1119613	3 G 10	25	50	100			500	1000	14.6	288.0	466
1119614	4 G 10	25	50	100			500	1000	16.2	384.0	590
1119615	5 G 10	25	50	100			500	1000	18.1	480.0	722
1119617	7 G 10	25	50	100			500	1000	20.0	672.0	968
1119624	4 G 16		50	100			500		18.8	614.0	1087
1119625	5 G 16		50	100			500		21.2	768.0	1370
1119627	7 G 16		50	100			500		23.4	1,075.0	1779
1119634	4 G 25		50	100			500		23.5	960.0	1582
1119635	5 G 25		50	100			500		26.4	1,200.0	1998
1119636	7 G 25		50	100			500		29.1	1,680.0	2825
1119644	4 G 35		50	100			500		26.4	1,344.0	2106
1119645	5 G 35		50	100			500		29.6	1,680.0	2635

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
 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 are not to scale and do not represent detailed images of the respective products.

■ Similar products

- ÖLFLEX® 191 refer to page 45

■ Accessories

- SKINTOP® CLICK refer to page 654

ÖLFLEX® CLASSIC 110 COLD



Info

- VDE certificate of conformity with factory surveillance
- UV and weather-resistant according to ISO 4892-2
- Torsion-tested for wind turbines

Benefits

- Space-saving installation due to small cable diameters
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Freezing plants, cold storage
- Suitable for outdoor applications
- Drip-loop installation in wind turbines

Product features

- Flame-retardant according to IEC 60332-1-2
- Flexible down to -30°C
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396
- Torsion-tested for wind turbines



Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC, cold-resistant
- PVC outer sheath, cold-resistant, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -30 °C to +70 °C
Fixed installation: -40°C to +80°C
- VDE-tested**
VDE reg. no. 8274

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 COLD				
1119660	2 X 0.75	5.4	14.4	45
1119661	3 X 0.75	5.7	21.6	55
1119662	3 G 0.75	5.7	21.6	55
1119663	4 X 0.75	6.2	28.8	66
1119664	4 G 0.75	6.2	28.8	66
1119665	5 X 0.75	6.7	36.0	79
1119666	5 G 0.75	6.7	36.0	79
1119667	7 X 0.75	7.3	50.0	101
1119668	7 G 0.75	7.3	50.0	101
1119669	12 G 0.75	9.9	86.0	171
1119670	18 G 0.75	11.7	130.0	244
1119671	25 G 0.75	13.8	180.0	337
1119672	2 X 1.0	5.7	19.2	53
1119673	3 X 1.0	6.0	28.8	65
1119674	3 G 1.0	6.0	28.8	65
1119675	4 X 1.0	6.5	38.4	79
1119676	4 G 1.0	6.5	38.4	79
1119677	5 X 1.0	7.1	48.0	94
1119678	5 G 1.0	7.1	48.0	94
1119679	7 X 1.0	8.0	67.0	126
1119680	7 G 1.0	8.0	67.0	126
1119681	12 G 1.0	10.5	115.0	205
1119682	18 G 1.0	12.7	173.0	300
1119683	25 G 1.0	14.7	240.0	408
1119684	2 X 1.5	6.3	29.0	68
1119685	3 X 1.5	6.7	43.0	84
1119686	3 G 1.5	6.7	43.0	84
1119687	4 X 1.5	7.2	58.0	104
1119688	4 G 1.5	7.2	58.0	104
1119689	5 X 1.5	8.1	72.0	128
1119690	5 G 1.5	8.1	72.0	128
1119691	7 X 1.5	8.9	101.0	166
1119692	7 G 1.5	8.9	101.0	166
1119693	12 G 1.5	12.0	173.0	279
1119694	18 G 1.5	14.4	259.0	407
1119695	25 G 1.5	16.9	360.0	560
1119696	2 X 2.5	7.5	48.0	101
1119698	3 G 2.5	8.1	72.0	132
1119700	4 G 2.5	8.9	96.0	163
1119702	5 G 2.5	10.0	120.0	200
1119704	7 G 2.5	11.1	168.0	267
1119710	4 G 4	10.8	154.0	249
1119711	5 G 4	12.1	192.0	305
1119715	4 G 6	13.0	230.0	365
1119716	5 G 6	14.5	288.0	447

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 H refer to page 53
- ÖLFLEX® ROBUST 210 refer to page 63

Accessories

- FLEXIMARK® Stainless steel kit refer to page 872
- SKINTOP® MS-M refer to page 662

ÖLFLEX® CLASSIC 110 ORANGE



Info

- For warning purposes and for exempted circuits according to EN 60204-1, e.g. circuits for maintenance or interlocking circuits

Benefits

- Space-saving installation due to small cable diameters
- High electrical performance due to 4 kV test voltage

Application range

- According to EN 60204-1 (VDE 0113-1), conductors of control circuits that are supplied by an external power source and/or remain live when the main switch is deactivated must be orange
- Electrical lighting and socket circuits for maintenance or repair purposes
- Undervoltage protection circuits
- Interlocking control circuits

Product features

- Flame-retardant according to IEC 60332-1-2

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- Orange cores with black numbers
- PVC outer sheath, orange (RAL 2003)

Technical data



Core identification code
Orange cores with black numbers



Based on
IEC 60227-5
HD 21.5 S3; VDE 0281 Part 5
HD 21.13 S1; VDE 0281 Part 13



Specific insulation resistance
> 20 GOhm x cm



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
U₀/U: 300/500 V



Test voltage
4000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Occasional flexing: -5°C to +70°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® CLASSIC 110 ORANGE				
0019700	2 X 1.0	5.7	19.2	53
0019701	3 G 1.0	6.0	28.8	65
0019702	3 X 1.0	6.0	28.8	65
0019706	4 G 1.0	6.5	38.4	80
0019708	4 X 1.0	6.5	38.4	80
0019709	5 G 1.0	7.1	50.0	95
0019710	2 X 1.5	6.3	29.0	68
0019711	3 G 1.5	6.7	43.0	85
0019718	4 G 1.5	7.2	58.0	105
0019720	5 G 1.5	8.1	72.0	128

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- H07V-K refer to page 198
- Orange-coloured single cores

Accessories

- SKINTOP® CLICK refer to page 654

ÖLFLEX®
UNITRONIC®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
SILVYN®
FLEXIMARK®
ACCESSORIES
APPENDIX

ÖLFLEX® CLASSIC 110 CY



Info

- EMC-compliant
- VDE reg. no. 7030

Benefits

- Space-saving installation due to small cable diameters
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Conveyor and transport systems
- In EMC-sensitive environments
(electromagnetic compatibility)

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance
see Appendix T1
- High degree of screening
low transfer impedance
(max. 250 Ω/km at 30 MHz)

Approvals



- Remark: A RoHS-non-compliant version is marketed under ÖLFLEX® 110 CY with VDE-REG.-Nr. 8067. To order this, please add appendix <1> to the below stated part numbers. This does not affect the above given further technical data or description.

Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC inner sheath, grey
- Tinned-copper braiding
- PVC outer sheath, transparent

Technical data

- **Core identification code**
Black with white numbers acc. to VDE 0293
- **Specific insulation resistance**
> 20 GOhm x cm
- **Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- **Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- **Nominal voltage**
U₀/U: 300/500 V
- **Test voltage**
4000 V
- **Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- **Temperature range**
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C
- **VDE-tested**
VDE reg. no. 7030 for sizes up to and including 65 cores

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 CY				
1135752	2 X 0.5	7.0	41.0	75
1135003	3 G 0.5	7.3	45.5	83
1135753	3 X 0.5	7.3	45.5	83
1135004	4 G 0.5	7.9	55.0	99
1135754	4 X 0.5	7.9	55.0	99
1135005	5 G 0.5	8.4	66.0	112
1135755	5 X 0.5	8.4	66.0	112
1135007	7 G 0.5	8.9	80.5	132
1135757	7 X 0.5	8.9	80.5	132
1135012	12 G 0.5	11.3	138.5	202
1135762	12 X 0.5	11.3	138.5	202
1135018	18 G 0.5	13.3	156.4	289
1135025	25 G 0.5	15.2	250.0	378
1135030	30 G 0.5	16.1	297.0	429
1135040	40 G 0.5	18.2	343.0	542
1135802	2 X 0.75	7.4	46.0	86
1135103	3 G 0.75	7.9	57.9	100
1135803	3 X 0.75	7.9	57.9	100
1135104	4 G 0.75	8.4	64.0	115
1135804	4 X 0.75	8.4	64.0	115
1135105	5 G 0.75	8.9	77.4	130
1135805	5 X 0.75	8.9	77.4	130
1135107	7 G 0.75	9.7	102.0	161
1135807	7 X 0.75	9.7	102.0	161
1135112	12 G 0.75	12.3	177.0	247
1135812	12 X 0.75	12.3	177.0	247
1135118	18 G 0.75	14.5	243.0	356
1135818	18 X 0.75	14.5	243.0	356
1135125	25 G 0.75	16.6	307.3	465
1135134	34 G 0.75	18.9	323.2	601
1135840	40 X 0.75	20.5	369.4	734
1135141	41 G 0.75	20.6	488.0	728
1135852	2 X 1.0	7.9	56.0	98
1135203	3 G 1.0	8.2	65.3	111
1135853	3 X 1.0	8.2	65.3	111
1135204	4 G 1.0	8.7	78.1	130
1135854	4 X 1.0	8.7	78.1	130
1135205	5 G 1.0	9.5	89.4	153
1135207	7 G 1.0	10.2	113.3	185
1135212	12 G 1.0	13.3	188.1	307
1135216	16 G 1.0	14.6	216.0	390
1135218	18 G 1.0	15.5	286.0	418
1135225	25 G 1.0	17.5	388.5	544

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1135234	34 G 1.0	20.3	505.0	738
1135241	41 G 1.0	22.0	578.0	864
1135250	50 G 1.0	23.8	688.0	1011
1135902	2 X 1.5	8.5	65.0	117
1135303	3 G 1.5	8.9	83.0	136
1135903	3 X 1.5	8.9	83.0	136
1135304	4 G 1.5	9.6	100.0	163
1135904	4 X 1.5	9.6	100.0	163
1135305	5 G 1.5	10.3	125.0	188
1135905	5 X 1.5	10.3	125.0	188
1135307	7 G 1.5	11.3	149.0	237
1135907	7 X 1.5	11.3	149.0	237
1135312	12 G 1.5	14.8	280.0	393
1135318	18 G 1.5	17.2	389.0	538
1135325	25 G 1.5	20.1	535.0	745
1135334	34 G 1.5	22.8	702.0	964
1135341	41 G 1.5	24.7	844.6	1123
1135350	50 G 1.5	27.1	1,006.0	1372
1135402	2 X 2.5	9.9	112.0	165
1135403	3 G 2.5	10.3	146.0	192
1135404	4 G 2.5	11.3	167.0	233
1135405	5 G 2.5	12.6	200.0	283
1135407	7 G 2.5	13.9	288.0	371
1135412	12 G 2.5	17.6	477.3	585
1135502	2 X 4	11.4	120.0	247
1135504	4 G 4	13.4	237.0	347
1135505	5 G 4	14.7	280.0	413
1135602	2 X 6	13.6	180.0	353
1135604	4 G 6	15.8	318.0	485
1135605	5 G 6	17.3	441.0	702
1135607	7 G 6	18.8	530.0	950
1135702	2 X 10	16.4	256.0	492
1135615	3 G 10	17.4	362.4	507
1135614	4 G 10	19.0	558.0	735
1135616	5 G 10	21.2	595.0	847
1135617	7 G 10	23.2	796.0	1039
1135622	2 X 16	18.6	390.0	698
1135624	4 G 16	22.2	804.0	1395
1135623	5 G 16	26.7	935.0	1440
1135626	4 G 25	28.7	1,161.0	1730
1135627	5 G 25	31.6	1,400.0	2090
1135625	4 G 35	32.0	1,543.0	2210
1135628	5 G 35	35.5	1,901.0	2710

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 CY BLACK 0,6/1 kV refer to page 36

Accessories

- SKINTOP® MS-M BRUSH refer to page 669

Various applications

PVC outer sheath and numbered cores

ÖLFLEX® CLASSIC 110 SY



Info

- With steel wire braiding
- VDE reg. no. 7030

Benefits

- Extra mechanical protection due to braided steel wire
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Areas with high mechanical stress
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load

Product features

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance see Appendix T1

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC inner sheath, grey
- Braid of galvanized steel wires
- PVC outer sheath, transparent

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5 °C to +70 °C
Fixed installation: -40 °C to +80 °C
- VDE-tested**
VDE reg. no. 7030 for sizes up to and including 65 cores

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 SY				
1125752	2 X 0.5	7.8	10.0	87
1125003	3 G 0.5	8.1	15.0	95
1125004	4 G 0.5	8.5	19.2	107
1125005	5 G 0.5	9.2	24.0	123
1125007	7 G 0.5	9.7	33.6	147
1125010	10 G 0.5	11.6	48.0	196
1125012	12 G 0.5	11.9	58.0	213
1125014	14 G 0.5	12.5	67.0	237
1125018	18 G 0.5	13.9	86.4	291
1125021	21 G 0.5	14.9	101.0	332
1125025	25 G 0.5	15.6	120.0	375
1125030	30 G 0.5	16.5	144.0	422
1125040	40 G 0.5	18.8	192.0	545
1125061	61 G 0.5	21.9	293.0	773
1125802	2 X 0.75	8.2	14.4	97
1125103	3 G 0.75	8.5	21.6	108
1125104	4 G 0.75	9.2	28.8	126
1125105	5 G 0.75	9.7	36.0	146
1125107	7 G 0.75	10.3	50.0	172
1125109	9 G 0.75	12.4	65.0	224
1125112	12 G 0.75	12.9	86.0	260
1125115	15 G 0.75	14.1	108.0	315
1125118	18 G 0.75	14.9	130.0	355
1125125	25 G 0.75	17.0	180.0	465
1125134	34 G 0.75	19.3	245.0	596
1125150	50 G 0.75	22.8	360.0	832
1125852	2 X 1.0	8.5	19.2	106
1125203	3 G 1.0	8.8	28.8	119
1125204	4 G 1.0	9.5	38.4	141
1125205	5 G 1.0	10.1	48.0	164
1125207	7 G 1.0	11.0	67.0	200
1125208	8 G 1.0	12.5	77.0	234
1125209	9 G 1.0	13.2	86.0	260
1125212	12 G 1.0	13.9	115.0	309
1125214	14 G 1.0	14.4	134.0	345
1125218	18 G 1.0	15.9	173.0	415
1125220	20 G 1.0	16.8	192.0	455
1125225	25 G 1.0	18.1	240.0	548

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1125234	34 G 1.0	20.5	326.0	714
1125241	41 G 1.0	22.2	394.0	832
1125250	50 G 1.0	24.2	480.0	987
1125265	65 G 1.0	27.2	624.0	1250
1125902	2 X 1.5	9.3	29.0	128
1125303	3 G 1.5	9.7	43.0	151
1125304	4 G 1.5	10.2	58.0	173
1125305	5 G 1.5	11.1	72.0	202
1125307	7 G 1.5	11.9	101.0	248
1125308	8 G 1.5	14.0	115.0	301
1125312	12 G 1.5	15.4	173.0	396
1125314	14 G 1.5	15.9	202.0	438
1125318	18 G 1.5	17.6	259.0	538
1125325	25 G 1.5	20.3	360.0	713
1125332	32 G 1.5	22.1	461.0	876
1125341	41 G 1.5	24.9	591.0	1101
1125350	50 G 1.5	27.1	720.0	1305
1125403	3 G 2.5	11.1	72.0	206
1125404	4 G 2.5	12.1	96.0	249
1125405	5 G 2.5	13.2	120.0	295
1125407	7 G 2.5	14.3	168.0	373
1125412	12 G 2.5	18.2	288.0	586
1125418	18 G 2.5	21.4	432.0	823
1125425	25 G 2.5	24.4	600.0	1093
1125503	3 G 4	12.7	115.0	285
1125504	4 G 4	14.0	154.0	348
1125505	5 G 4	15.1	192.0	410
1125507	7 G 4	16.4	269.0	519
1125604	4 G 6	16.2	230.0	482
1125605	5 G 6	17.7	288.0	579
1125607	7 G 6	19.2	403.0	740
1125614	4 G 10	19.4	384.0	731
1125615	5 G 10	21.5	480.0	889
1125617	7 G 10	23.4	672.0	1146
1125624	4 G 16	22.4	614.0	1384
1125625	5 G 16	24.6	768.0	1740
1125626	4 G 25	28.9	960.0	1680
1125630	5 G 25	31.8	1,200.0	2050
1125629	4 G 35	32.2	1,344.0	2170

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 100 SY refer to page 26

Accessories

- SKINTOP® MS-M refer to page 662

ÖLFLEX® CLASSIC 110 BLACK 0,6/1kV



Info

- Suitable for outdoor applications
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396



Benefits

- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
Power stations
Stage applications
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load
- Outdoor use is possible within the indicated operating temperature range
- Suitable for direct burial

Product features

- Flame-retardant according to IEC 60332-1-2
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250-1 and HD 627 S1
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 BLACK				
1120232	2 X 0.75	8.3	14.4	81
1120233	3 G 0.75	8.7	21.6	93
1120234	3 X 0.75	8.7	21.6	93
1120235	4 G 0.75	9.2	29.0	108
1120237	5 G 0.75	9.9	36.0	126
1120241	7 G 0.75	10.7	51.0	162
1120248	12 G 0.75	13.4	86.0	236
1120251	18 G 0.75	15.4	130.0	334
1120259	41 G 0.75	21.6	296.0	713
1120266	2 X 1.0	8.6	19.2	98
1120267	3 G 1.0	9.0	29.0	112
1120268	3 X 1.0	9.0	29.0	112
1120269	4 G 1.0	9.6	38.4	131
1120270	4 X 1.0	9.6	38.4	131
1120271	5 G 1.0	10.4	48.0	152
1120274	7 G 1.0	11.1	67.0	196
1120280	12 G 1.0	14.0	116.0	286
1120284	18 G 1.0	16.1	173.0	419
1120290	25 G 1.0	18.6	240.0	572
1120294	34 G 1.0	21.3	326.0	764
1120298	41 G 1.0	23.2	394.0	891
1120306	2 X 1.5	9.6	29.0	123
1120307	3 G 1.5	10.1	43.0	144
1120308	3 X 1.5	10.1	43.0	144
1120309	4 G 1.5	10.8	58.0	170
1120311	5 G 1.5	11.7	72.0	199
1120314	7 G 1.5	12.6	101.0	261
1120320	12 G 1.5	16.1	173.0	399
1120322	14 G 1.5	17.0	202.0	448
1120324	18 G 1.5	18.8	259.0	547

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1120328	25 G 1.5	21.7	360.0	770
1120330	34 G 1.5	24.9	490.0	996
1120333	50 G 1.5	29.8	720.0	1427
1120339	2 X 2.5	10.8	48.0	147
1120340	3 G 2.5	11.3	72.0	182
1120342	4 G 2.5	12.2	96.0	225
1120343	4 X 2.5	12.2	96.0	225
1120344	5 G 2.5	13.3	120.0	266
1120346	7 G 2.5	14.4	168.0	354
1120349	12 G 2.5	18.7	288.0	540
1120350	14 G 2.5	19.8	336.0	542
1120351	18 G 2.5	22.0	432.0	788
1120353	25 G 2.5	25.8	600.0	1094
1120360	4 G 4	13.8	154.0	324
1120361	5 G 4	15.1	192.0	385
1120362	7 G 4	16.4	269.0	513
1120366	4 G 6	15.1	230.0	442
1120367	5 G 6	16.8	288.0	526
1120368	7 G 6	18.2	403.0	705
1120370	4 G 10	18.7	384.0	707
1120371	5 G 10	20.7	480.0	881
1120374	4 G 16	21.3	614.0	1100
1120375	5 G 16	23.6	768.0	1600
1120376	7 G 16	26.2	1,075.0	1890
1120378	4 G 25	26.2	960.0	1600
1120379	5 G 25	29.0	1,200.0	2050
1120382	4 G 35	29.1	1,344.0	2400
1120383	5 G 35	32.5	1,680.0	2900
1120385	4 G 50	35.6	1,920.0	3400
1120387	4 G 70	40.7	2,688.0	5050
1120389	4 G 95	46.8	3,648.0	6010
1120390	4 G 120	53.5	4,608.0	7500

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 100 BK POWER 0,6/1kV refer to page 27
- ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59

Accessories

- SKINTOP® MS-M refer to page 662
- Cable shears KT 4 and KT 5 refer to page 904

Various applications

PVC outer sheath and numbered cores

ÖLFLEX® CLASSIC 110 CY BLACK 0,6/1 kV



Info

- Suitable for outdoor applications
- UV and weather-resistant according to ISO 4892-2
- EMC-compliant

Benefits

- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
Power stations
- For frequency converter powered 3 phases AC motors
- In EMC-sensitive environments (electromagnetic compatibility)
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load
- Outdoor use is possible within the indicated operating temperature range
- Suitable for direct burial

Product features

- Flame-retardant according to IEC 60332-1-2
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396
- High degree of screening
low transfer impedance
(max. 250 Ω/km at 30 MHz)

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC inner sheath, black
- Tinned-copper braiding
- PVC outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250-1 and HD 627 S1
- Specific insulation resistance**
> 20 GΩm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5 °C to +70 °C
Fixed installation: -40 °C to +80 °C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 CY BLACK				
1121232	2 X 0.75	10.5	46.0	183
1121233	3 G 0.75	10.9	56.0	210
1121235	4 G 0.75	11.4	67.0	238
1121236	4 X 0.75	11.4	67.0	238
1121237	5 G 0.75	12.1	78.0	272
1121241	7 G 0.75	12.9	97.0	315
1121247	12 G 0.75	15.8	168.0	464
1121251	18 G 0.75	18.0	229.0	616
1121254	25 G 0.75	20.7	296.0	762
1121266	2 X 1.0	10.8	52.0	198
1121267	3 G 1.0	11.2	66.0	228
1121268	3 X 1.0	11.2	66.0	228
1121269	4 G 1.0	11.8	79.0	261
1121270	4 X 1.0	11.8	79.0	261
1121271	5 G 1.0	12.6	93.0	300
1121274	7 G 1.0	13.3	117.0	335
1121280	12 G 1.0	16.4	204.0	522
1121284	18 G 1.0	18.7	280.0	687
1121290	25 G 1.0	21.6	369.0	884
1121306	2 X 1.5	11.8	69.0	243
1121307	3 G 1.5	12.3	87.0	273
1121308	3 X 1.5	12.3	87.0	273
1121309	4 G 1.5	13.0	102.0	290
1121310	4 X 1.5	13.0	102.0	290
1121311	5 G 1.5	13.9	125.0	352

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1121314	7 G 1.5	15.0	180.0	448
1121320	12 G 1.5	18.7	281.0	690
1121324	18 G 1.5	21.8	391.0	938
1121328	25 G 1.5	25.1	518.0	1180
1121340	3 G 2.5	13.5	123.0	354
1121342	4 G 2.5	14.6	168.0	413
1121344	5 G 2.5	15.7	204.0	515
1121346	7 G 2.5	17.0	265.0	619
1121349	12 G 2.5	21.7	421.0	936
1121360	4 G 4	16.2	238.0	587
1121361	5 G 4	17.7	302.0	689
1121362	7 G 4	19.0	396.0	828
1121367	4 G 6	17.7	318.0	715
1121368	5 G 6	19.2	419.0	862
1121369	7 G 6	21.2	559.0	1105
1121372	4 G 10	21.7	574.0	875
1121373	5 G 10	23.0	612.0	1037
1121377	4 G 16	24.3	809.0	1198
1121378	5 G 16	26.7	935.0	1500
1121381	4 G 25	29.8	1,165.0	1814
1121382	5 G 25	31.6	1,400.0	2164
1121385	4 G 35	32.7	1,683.0	2893
1121388	4 G 50	39.6	2,368.0	4094
1121391	4 G 70	44.5	3,261.0	5467
1121394	4 G 95	51.0	4,055.0	5849
1121397	4 G 120	58.1	5,225.0	7509

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 135 CH BK 0,6/1kV refer to page 60

Accessories

- SKINTOP® MS-M BRUSH refer to page 669



Various applications

PVC outer sheath and numbered cores

ÖLFLEX® CLASSIC 115 CY



Info

- EMC-compliant
- Thin and light, without inner sheath

Benefits

- Space-saving installation due to small cable diameters

Application range

- Measurement and control technology
- Office machines and systems for data processing

Product features

- Flame-retardant according to IEC 60332.1.2
- Good chemical resistance see Appendix T1

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- Plastic foil wrapping
- Tinned-copper braiding
- PVC outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
Core/core: 4000 V
Core/screen: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5 °C to +70 °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® CLASSIC 115 CY				
1136752	2 X 0.5	5.8	36.0	45
1136003	3 G 0.5	6.1	43.0	59
1136753	3 X 0.5	6.1	43.0	59
1136004	4 G 0.5	6.5	49.0	71
1136754	4 X 0.5	6.5	49.0	71
1136005	5 G 0.5	7.0	57.0	86
1136755	5 X 0.5	7.0	57.0	86
1136007	7 G 0.5	7.5	69.0	105
1136757	7 X 0.5	7.5	69.0	105
1136012	12 G 0.5	9.9	104.0	200
1136762	12 X 0.5	9.9	104.0	200
1136018	18 G 0.5	11.5	141.0	275
1136768	18 X 0.5	11.5	141.0	275
1136025	25 G 0.5	13.4	211.0	350
1136775	25 X 0.5	13.4	211.0	350
1136802	2 X 0.75	6.2	43.0	56
1136103	3 G 0.75	6.5	52.0	70
1136803	3 X 0.75	6.5	52.0	70
1136104	4 G 0.75	7.0	61.0	95
1136804	4 X 0.75	7.0	61.0	95
1136105	5 G 0.75	7.7	72.0	108
1136805	5 X 0.75	7.7	72.0	108
1136107	7 G 0.75	8.3	89.0	127
1136807	7 X 0.75	8.3	89.0	127
1136112	12 G 0.75	10.9	138.0	232
1136118	18 G 0.75	12.7	211.0	315
1136125	25 G 0.75	14.8	280.0	435
1136825	25 X 0.75	14.8	280.0	435
1136852	2 X 1.0	6.5	51.0	71
1136203	3 G 1.0	6.8	62.0	86
1136853	3 X 1.0	6.8	62.0	86
1136204	4 G 1.0	7.3	74.0	98
1136854	4 X 1.0	7.3	74.0	98
1136205	5 G 1.0	8.1	88.0	121
1136855	5 X 1.0	8.1	88.0	121

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1136207	7 G 1.0	8.8	112.0	147
1136857	7 X 1.0	8.8	112.0	147
1136212	12 G 1.0	11.5	185.0	285
1136218	18 G 1.0	13.9	268.0	395
1136225	25 G 1.0	15.9	354.0	486
1136902	2 X 1.5	7.1	65.0	86
1136303	3 G 1.5	7.5	82.0	112
1136903	3 X 1.5	7.5	82.0	112
1136304	4 G 1.5	8.2	100.0	135
1136904	4 X 1.5	8.2	100.0	135
1136305	5 G 1.5	8.9	119.0	148
1136905	5 X 1.5	8.9	119.0	148
1136307	7 G 1.5	9.9	154.0	192
1136907	7 X 1.5	9.9	154.0	192
1136312	12 G 1.5	13.0	268.0	365
1136318	18 G 1.5	15.6	373.0	520
1136325	25 G 1.5	17.9	530.0	734
1136334	34 G 1.5	20.8	683.0	944
1136403	3 G 2.5	8.9	118.0	151
1136404	4 G 2.5	9.9	147.0	188
1136405	5 G 2.5	11.0	176.0	270
1136407	7 G 2.5	11.9	253.0	340
1136412	12 G 2.5	16.0	355.0	540
1136418	18 G 2.5	19.0	569.0	782
1136425	25 G 2.5	22.2	827.0	1358
1136504	4 G 4	11.6	248.0	305
1136507	7 G 4	14.4	355.0	500
1136604	4 G 6	14.2	343.0	440
1136607	7 G 6	17.0	505.0	672
1136614	4 G 10	17.2	535.0	680
1136615	5 G 10	19.5	592.0	824
1136624	4 G 16	20.2	800.0	1050
1136625	5 G 16	22.6	895.0	1285
1136634	4 G 25	25.1	1,075.0	1413
1136635	5 G 25	28.0	1,400.0	1976
1136638	4 G 35	28.0	1,576.0	2070

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 215 C refer to page 64
- ÖLFLEX® CLASSIC 110 CY refer to page 33

Accessories

- 3M Scotch™ 1183 screening tape refer to page 944
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® EB

According to DIN EN 60079-14; VDE 0165 part 1



Info

- For use in voltage range: < 50 V AC / < 75 V DC where acc. to Directive 2006/95/EC and 73/23/EEC the CE mark is not mandatory!



Benefits

- Space-saving installation due to small cable diameters

Application range

- Installation of intrinsically safe circuits, where a special cable marking for hazard area type "I"- intrinsic safety is specified

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



- Electrical characteristics and markings on the wires and cables are according to DIN EN 60079-14 Section 12.2.2 (VDE 0165 Part 1)

Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- PVC outer sheath, sky blue RAL 5015

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Mutual capacitance**
Core/core approx. 110 nF/km
- Based on**
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 20 GOhm x cm
- Inductivity**
approx. 0.65 mH/km
- 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**
< 50 V AC
< 75 V DC
see Info
- Test voltage**
Core/core: 3000 V
- Temperature range**
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® EB without protective conductor GN/YE				
0012420	2 X 0.75	5.4	14.7	50
0012421	3 X 0.75	5.7	22.1	60
0012430	4 X 0.75	6.2	29.4	81
0012422	5 X 0.75	6.7	36.8	88
0012423	7 X 0.75	7.3	51.5	115
0012425	12 X 0.75	9.9	88.2	185
0012427	18 X 0.75	11.7	132.3	282
0012429	25 X 0.75	13.8	183.8	393
0012440	2 X 1.0	5.7	19.7	57
0012441	3 X 1.0	6.0	29.6	73
0012443	5 X 1.0	7.1	49.4	105
0012444	7 X 1.0	8.0	69.1	138
0012446	12 X 1.0	10.5	118.4	231
0012448	18 X 1.0	12.7	177.7	331
0012401	2 X 1.5	6.3	29.0	80
0012402	3 X 1.5	6.7	43.0	105
0012403	4 X 1.5	7.2	58.0	125
0012404	5 X 1.5	8.1	72.0	139
ÖLFLEX® EB with protective conductor GN/YE				
0012501	3 G 1.5	6.7	43.0	105
0012502	4 G 1.5	7.2	58.0	125
0012503	5 G 1.5	8.1	72.0	139
0012504	7 G 1.5	8.9	101.0	180
0012505	12 G 1.5	12.0	173.0	339
0012506	18 G 1.5	14.4	259.0	513
0012507	25 G 1.5	16.9	360.0	698

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- UNITRONIC® EB CY (TP) refer to page 278
- UNITRONIC® EB JE-LiYCY...BD refer to page 279
- UNITRONIC® EB JE-Y(ST)Y 0,8 BD refer to page 280

Accessories

- FLEXIMARK® Stainless steel kit refer to page 872
- SKINTOP® K-M ATEX plus blue refer to page 661

ÖLFLEX® EB CY

According to DIN EN 60079-14; VDE 0165 part 1



Info

- For use in voltage range: < 50 V AC / < 75 V DC where acc. to Directive 2006/95/EC and 73/23/EEC the CE mark is not mandatory!
- EMC-compliant

Benefits

- Space-saving installation due to small cable diameters
- Copper wire braid screening of the ÖLFLEX® EB CY protects signal transmission within intrinsically safe circuits against electromagnetic interference

Application range

- Installation of intrinsically safe circuits, where a special cable marking for hazard area type "i"- intrinsic safety is specified
- In EMC-sensitive environments (electromagnetic compatibility)

Product features

- Flame-retardant according to IEC 60332.1.2
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)

Approvals



- Electrical characteristics and markings on the wires and cables are according to DIN EN 60079-14 Section 12.2.2 (VDE 0165 Part 1)

Design

- Fine-wire strand made of bare copper wires
- PVC insulation LAPP P8/1
- Plastic foil wrapping
- Tinned-copper braiding
- PVC outer sheath, sky blue RAL 5015

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Mutual capacitance**
Core/core approx. 135 nF/km
Core/screen approx. 185 nF/km
- Based on**
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 20 GΩm x cm
- Inductivity**
approx. 0.65 mH/km
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
< 50 V AC
< 75 V DC
see Info
- Test voltage**
Core/core: 3000 V
Core/screen: 2000 V
- Temperature range**
Occasional flexing: -5 °C to +70 °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® EB CY screened; without inner sheath				
0012640	2 X 0.75	6.2	43.0	56
0012641	3 X 0.75	6.5	52.0	70
0012642	4 X 0.75	7.0	61.0	95
0012643	5 X 0.75	7.7	72.0	108
0012644	7 X 0.75	8.3	89.0	168
0012645	12 X 0.75	10.9	138.0	216
0012646	18 X 0.75	12.7	211.0	315
0012647	25 X 0.75	14.8	280.0	435
0012650	2 X 1.0	6.5	51.0	84
0012651	3 X 1.0	6.8	62.0	110
0012652	5 X 1.0	8.1	88.0	156
0012653	7 X 1.0	8.8	112.0	192
0012654	12 X 1.0	11.5	185.0	285
0012655	18 X 1.0	13.9	268.0	395
0012656	25 X 1.0	15.9	354.0	656
0012660	2 X 1.5	7.1	65.0	87
0012661	3 X 1.5	7.5	82.0	112
0012662	5 X 1.5	8.9	119.0	148
0012663	7 X 1.5	9.9	154.0	193
0012664	12 X 1.5	13.0	268.0	365
0012666	25 X 1.5	17.9	530.0	734

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- UNITRONIC® EB CY (TP) refer to page 278
- UNITRONIC® EB JE-LiYCY...BD refer to page 279
- UNITRONIC® EB JE-Y(ST)Y 0,8 BD refer to page 280

Accessories

- 3M Scotch™ 1183 screening tape refer to page 944
- SKINTOP® K-M ATEX plus blue refer to page 661

ÖLFLEX® 140
H05VV5-F (HD 21.13 S1)



Info

- Oil-resistant according to HD21.1: TM5

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Machine tools
- Mainly used in dry, damp and wet interiors (including water-oil mixtures), but not for outdoor use
- For fixed installation under medium mechanical load conditions, and applications with occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to HD21.1: TM5

Approvals



Design

- Fine-wire strand made of bare copper wires
- PVC core insulation
- PVC outer sheath, high oil-resistance, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
HD 21.13 S1, VDE 0281-13
- Specific insulation resistance**
> 20 GΩhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 12.5 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 140 H05VV5-F				
0011000	3 G 0.5	5.5 - 7.0	14.4	62.4
0011104	4 G 0.5	6.2 - 7.9	19.2	68.2
0011001	5 G 0.5	6.8 - 8.6	24.0	87.1
0011002	7 G 0.5	8.3 - 10.4	33.6	118.7
0011003	12 G 0.5	10.4 - 12.9	58.0	198
0011004	18 G 0.5	12.3 - 15.3	86.4	266.9
0011005	25 G 0.5	14.8 - 18.3	120.0	380.4
0011006	34 G 0.5	17.2 - 21.2	163.2	509
0011009	3 G 0.75	6.0 - 7.6	21.6	75.6
0011204	4 G 0.75	6.6 - 8.3	28.8	83.9
0011010	5 G 0.75	7.4 - 9.3	36.0	113.3
0011011	7 G 0.75	9.0 - 11.3	50.0	145
0011012	12 G 0.75	11.0 - 13.7	86.0	244.9
0011013	18 G 0.75	13.2 - 16.4	130.0	327.7
0011014	25 G 0.75	15.8 - 19.5	180.0	466.4
0011015	34 G 0.75	18.4 - 22.6	245.0	626.5
0011241	41 G 0.75	20.1 - 24.7	296.0	748
0011018	3 G 1.0	6.3 - 8.0	28.8	89.3
0011304	4 G 1.0	6.9 - 8.7	38.4	98.6
0011019	5 G 1.0	7.8 - 9.8	48.0	132.1
0011020	7 G 1.0	9.5 - 11.8	67.0	169.3
0011021	12 G 1.0	11.8 - 14.6	115.0	285.9
0011022	18 G 1.0	14.0 - 17.2	173.0	405.2
0011023	25 G 1.0	16.8 - 20.7	240.0	569.5
0011024	34 G 1.0	19.6 - 24.0	326.0	741.7
0011341	41 G 1.0	21.4 - 26.2	394.0	886
0011027	3 G 1.5	7.4 - 9.4	43.0	109.8
0011404	4 G 1.5	8.2 - 10.2	58.0	140.7
0011028	5 G 1.5	9.1 - 11.4	72.0	175
0011029	7 G 1.5	11.3 - 14.1	101.0	224.2
0011030	12 G 1.5	13.8 - 17.0	173.0	361.7
0011031	18 G 1.5	16.5 - 20.3	259.0	518.3
0011032	25 G 1.5	19.8 - 24.3	360.0	729.9
0011033	34 G 1.5	23.1 - 28.2	490.0	946.6
0011036	3 G 2.5	9.0 - 11.2	72.0	162.4
0011504	4 G 2.5	10.1 - 12.5	96.0	203.3
0011037	5 G 2.5	11.0 - 13.7	120.0	251.1
0011038	7 G 2.5	13.6 - 16.8	168.0	326
0011039	12 G 2.5	16.8 - 20.6	288.0	553.3
0011045	14 G 2.5	18.3 - 22.7	336.0	611
0011040	18 G 2.5	20.2 - 24.8	432.0	795.2
0011041	25 G 2.5	24.2 - 29.6	600.0	1109.6

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 150 QUATTRO refer to page 43

Accessories

- SKINTOP® CLICK refer to page 654

Various applications

PVC sheath, approved

ÖLFLEX® 140 CY
H05VVC4V5-K (HD 21.13 S1)



Info

- Oil-resistant according to HD21.1: TM5
- EMC-compliant

■ **Application range**

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Machine tools
- Mainly used in dry, damp and wet interiors (including water-oil mixtures), but not for outdoor use
- For fixed installation under medium mechanical load conditions, and applications with occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- In EMC-sensitive environments (electromagnetic compatibility)

■ **Product features**

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to HD21.1: TM5
- High degree of screening
low transfer impedance
(max. 250 Ω/km at 30 MHz)

■ **Approvals**



■ **Design**

- Fine-wire strand made of bare copper wires
- PVC core insulation
- PVC inner sheath, grey
- Tinned-copper braiding
- PVC outer sheath, high oil-resistance, grey (RAL 7001)

■ **Technical data**

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
HD 21.13 S1, VDE 0281-13
- Specific insulation resistance**
> 20 GΩm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5 °C to +70 °C
Fixed installation: -40 °C to +70 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 140 CY H05VVC4V5-K				
0035700	3 G 0.5	8.0 - 10.0	47.0	111.3
0035701	4 G 0.5	8.5 - 10.7	58.0	132.7
0035702	5 G 0.5	9.3 - 11.6	69.0	162.7
0035703	7 G 0.5	10.8 - 13.5	86.0	207.7
0035704	12 G 0.5	13.1 - 16.2	142.0	295
0035710	3 G 0.75	8.3 - 10.4	55.0	129.4
0035711	4 G 0.75	9.1 - 11.3	67.0	163.6
0035712	5 G 0.75	9.7 - 12.1	77.4	188.6
0035713	7 G 0.75	11.5 - 14.3	109.0	246.9
0035714	12 G 0.75	13.8 - 17.1	166.0	354.3
0035715	18 G 0.75	16.1 - 19.8	257.3	517
0035716	25 G 0.75	18.7 - 23.0	318.6	677.8
0035717	34 G 0.75	21.4 - 26.2	409.4	860.6
0035720	3 G 1.0	8.8 - 11.0	62.0	144.8
0035721	4 G 1.0	9.4 - 11.7	78.3	180.8
0035722	5 G 1.0	10.3 - 12.8	91.0	209
0035723	7 G 1.0	12.2 - 15.1	118.0	273
0035724	12 G 1.0	14.5 - 17.9	198.0	427.6
0035725	18 G 1.0	16.9 - 20.8	303.6	598.6
0035726	25 G 1.0	19.8 - 24.2	411.9	791.8
0035727	34 G 1.0	22.6 - 27.7	516.3	1003.9
0035730	3 G 1.5	9.7 - 12.1	83.0	189.7
0035731	4 G 1.5	10.7 - 13.2	97.8	221.6
0035732	5 G 1.5	11.8 - 14.7	118.0	261.8
0035733	7 G 1.5	14.1 - 17.4	218.0	356.7
0035734	12 G 1.5	16.7 - 20.6	309.7	559.4
0035735	18 G 1.5	19.5 - 24.0	411.4	767.6
0035736	25 G 1.5	22.9 - 28.0	546.5	1049
0035740	3 G 2.5	11.3 - 14.0	115.0	241.5
0035741	4 G 2.5	12.6 - 15.5	163.0	298.3
0035742	5 G 2.5	13.9 - 17.2	191.0	363.7
0035743	7 G 2.5	16.5 - 20.3	288.9	487.2
0035744	12 G 2.5	19.8 - 24.3	516.6	743.6

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

■ **Similar products**

- ÖLFLEX® 150 CY QUATTRO refer to page 44

■ **Accessories**

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669
- KMK Marking labels refer to page 884

ÖLFLEX® 150 QUATTRO



Info

- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43



Benefits

- Wide application range due to multiple approvals

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Machine tools
- Mainly used in dry, damp and wet interiors (including water-oil mixtures), but not for outdoor use
- For fixed installation under medium mechanical load conditions, and applications with occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2012: please see the catalogue appendix table T29

Product features

- Flame-retardant according to IEC 60332-1-2 and UL 1581 §1061 Cable Flame Test
- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- PVC core insulation
- PVC outer sheath, high oil-resistance, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
H05VV5-F (HD 21.13 S1)
UL AWM Style 21098 or 2587
CSA AWM I A/B II A/B
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 12.5 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
HAR U_c/U: 300/500 V
UL/CSA: 600 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing:
HAR: -5 °C to +70 °C
UL/CSA: -5 °C to +90 °C
Fixed installation:
HAR: -40 °C to +70 °C
UL/CSA: -40 °C to +90 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 150 QUATTRO				
0015002	2 X 0.5	5.9	9.6	47
0015003	3 G 0.5	6.2	14.4	62.4
0015004	4 G 0.5	6.8	19.2	68.2
0015005	5 G 0.5	7.4	24.0	87.1
0015007	7 G 0.5	9.0	33.6	118.7
0015012	12 G 0.5	11.1	58.0	198
0015018	18 G 0.5	14.2	86.4	328
0015025	25 G 0.5	16.0	120.0	380.4
0015034	34 G 0.5	18.1	164.0	509
0015041	41 G 0.5	19.7	197.0	595
0015102	2 X 0.75	6.3	14.4	61
0015103	3 G 0.75	6.7	21.6	75.6
0015104	4 G 0.75	7.2	28.8	83.9
0015105	5 G 0.75	8.1	36.0	113.3
0015107	7 G 0.75	9.9	50.0	145
0015112	12 G 0.75	12.0	86.0	244.9
0015118	18 G 0.75	14.4	130.0	327.7
0015125	25 G 0.75	17.1	180.0	466.4
0015134	34 G 0.75	19.7	245.0	626.5
0015141	41 G 0.75	21.6	296.0	748
0015202	2 X 1.0	6.6	19.2	80
0015203	3 G 1.0	7.0	28.8	79
0015204	4 G 1.0	7.8	38.4	98.6
0015205	5 G 1.0	8.6	48.0	132.1

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0015206	6 G 1.0	9.7	57.6	150
0015207	7 G 1.0	10.4	67.0	169.3
0015212	12 G 1.0	12.8	115.0	285.9
0015218	18 G 1.0	15.1	173.0	405.2
0015225	25 G 1.0	18.0	240.0	569.5
0015234	34 G 1.0	20.9	326.0	741.7
0015241	41 G 1.0	22.8	394.0	886
0015250	50 G 1.0	25.0	480.0	1072.2
0015302	2 X 1.5	7.5	28.8	95
0015303	3 G 1.5	8.1	43.0	109.8
0015304	4 G 1.5	8.9	58.0	145
0015305	5 G 1.5	10.0	72.0	168
0015307	7 G 1.5	12.3	101.0	224.2
0015312	12 G 1.5	15.1	173.0	361.7
0015318	18 G 1.5	17.8	259.0	518.3
0015325	25 G 1.5	21.5	360.0	729.9
0015334	34 G 1.5	24.7	490.0	946.6
0015341	41 G 1.5	26.8	591.0	1136
0015402	2 X 2.5	9.2	48.0	159
0015403	3 G 2.5	9.9	72.0	170
0015404	4 G 2.5	10.7	96.0	210
0015405	5 G 2.5	12.1	120.0	257
0015407	7 G 2.5	14.5	168.0	340
0015412	12 G 2.5	17.7	288.0	580
0015418	18 G 2.5	21.4	432.0	850
0015425	25 G 2.5	25.8	600.0	1166

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 600 m drum or 8 x 75 m coils). VDE certification covers the range of sizes from 0 to 60 cores. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 140 refer to page 41
- ÖLFLEX® 191 refer to page 45

Accessories

- SKINTOP® CLICK refer to page 654
- SKINTOP® ST-M refer to page 652

Various applications

PVC sheath, approved

ÖLFLEX® 150 CY QUATTRO



Info

- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43
- EMC-compliant

Benefits

- Wide application range due to multiple approvals

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- In EMC-sensitive environments (electromagnetic compatibility)
- Mainly used in dry, damp and wet interiors (including water-oil mixtures), but not for outdoor use
- For fixed installation under medium mechanical load conditions, and applications with occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2012: please see the catalogue appendix table T29

Product features

- Flame-retardant according to IEC 60332-1-2 and UL 1581 §1061 Cable Flame Test
- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43
- High degree of screening
low transfer impedance
(max. 250 Ω/km at 30 MHz)

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- PVC core insulation
- PVC inner sheath, grey
- Tinned-copper braiding
- PVC outer sheath, high oil-resistance, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
H05VVC4V5-K (HD 21.13 S1)
UL AWM Style 21098 or 2587
CSA AWM I A/B II A/B
- Specific insulation resistance**
> 20 GΩhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
HAR U₀/U: 300/500 V
UL/CSA: 600 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing:
HAR: -5 °C to +70 °C
UL/CSA: -5 °C to +90 °C
Fixed installation:
HAR: -40 °C to +70 °C
UL/CSA: -40 °C to +90 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 150 CY QUATTRO				
0015602	2 X 0.75	8.5	40.0	109
0015603	3 G 0.75	8.9	51.0	125
0015604	4 G 0.75	9.6	70.0	157
0015605	5 G 0.75	10.3	77.0	180
0015607	7 G 0.75	12.3	93.0	226
0015612	12 G 0.75	14.8	155.0	325
0015702	2 X 1.0	8.9	46.4	121
0015703	3 G 1.0	9.5	76.0	145
0015704	4 G 1.0	10.1	80.0	180
0015705	5 G 1.0	11.1	95.0	203
0015707	7 G 1.0	13.1	118.0	273
0015712	12 G 1.0	15.8	195.0	425
0015802	2 X 1.5	9.9	59.2	151
0015803	3 G 1.5	10.5	84.0	159
0015804	4 G 1.5	11.3	94.0	211
0015805	5 G 1.5	12.6	122.0	241
0015807	7 G 1.5	14.9	143.0	306
0015812	12 G 1.5	17.6	254.0	480
0015903	3 G 2.5	11.8	120.0	245
0015904	4 G 2.5	13.1	170.0	295
0015905	5 G 2.5	14.6	205.0	365
0015907	7 G 2.5	17.3	241.0	480

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 600 m drum or 8 x 75 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 140 CY refer to page 42
- ÖLFLEX® 191 CY refer to page 46

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX



Info

- Conductor cross-section up to 120 mm²
- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43

Benefits

- High electrical performance due to 4 kV test voltage
- For various applications

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Machine tools
- Mainly used in dry, damp and wet interiors (including water-oil mixtures), but not for outdoor use
- For fixed installation under medium mechanical load conditions, and applications with occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2012: please see the catalogue appendix table T29

Product features

- Flame-retardant according to IEC 60332-1-2 and UL 1581 §1061 Cable Flame Test
- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- PVC core insulation
- PVC outer sheath, high oil-resistance, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL AWM Style 21098 or 2587
CSA AWM I A/B II A/B
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
HAR U₀/U: 300/500 V
UL/CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing:
HAR: -5 °C to +70 °C
UL/CSA: -5 °C to +90 °C
Fixed installation:
HAR: -40 °C to +70 °C
UL/CSA: -40 °C to +90 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 191				
0011106	18 G 0.5	12.1	86.4	267
0011218	2 X 0.75	5.9	14.4	51
0011219	3 G 0.75	6.3	21.6	61
0011220	4 G 0.75	6.8	28.8	74
0011221	5 G 0.75	7.5	36.0	88
0011222	7 G 0.75	8.3	50.4	116
0011223	9 G 0.75	10.5	64.8	152
0011224	12 G 0.75	11.2	86.4	194
0011225	18 G 0.75	13.3	129.6	275
0011226	25 G 0.75	16.1	180.0	383
0011113	3 G 1.0	6.7	28.8	66
0011114	4 G 1.0	7.2	38.4	81
0011115	5 G 1.0	8.1	48.0	95
0011116	7 G 1.0	8.9	67.2	125
0011117	12 G 1.0	12.0	115.2	211
0011118	18 G 1.0	14.4	172.8	309
0011119	25 G 1.0	17.3	240.0	413
0011136	2 X 1.5	6.9	28.8	74
0011137	3 G 1.5	7.3	44.0	91
0011138	4 G 1.5	8.2	58.0	112
0011139	5 G 1.5	9.0	72.0	136
0011140	7 G 1.5	10.0	101.0	179
0011125	9 G 1.5	12.7	129.6	230
0011142	12 G 1.5	13.4	173.0	313

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0011143	18 G 1.5	16.1	260.0	444
0011144	25 G 1.5	19.5	360.0	620
0011150	3 G 2.5	8.4	72.0	138
0011151	4 G 2.5	9.1	96.0	182
0011152	5 G 2.5	10.2	120.0	216
0011153	7 G 2.5	11.4	168.0	286
0011160	3 G 4	10.0	115.2	202
0011161	4 G 4	10.9	154.0	245
0011162	5 G 4	12.2	192.0	310
0011167	7 G 4	13.5	268.8	470
0011165	4 G 6	13.0	231.0	398
0011166	5 G 6	14.5	288.0	479
0011169	4 G 10	16.7	384.0	559
0011170	5 G 10	18.4	480.0	782
0011172	4 G 16	22.1	615.0	904.2
0011173	5 G 16	24.3	768.0	1171
0011175	4 G 25	25.6	960.0	1299
0011176	5 G 25	28.0	1,200.0	1640
0011178	4 G 35	28.1	1,344.0	2119
0011179	5 G 35	31.5	1,680.0	2606
0011205	4 G 50	35.7	1,920.0	2898
0011206	4 G 70	43.0	2,688.0	4052
0011207	4 G 95	47.2	3,648.0	5430
0011208	4 G 120	54.2	4,608.0	6290

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 600 m drum or 8 x 75 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 150 QUATTRO refer to page 43
- ÖLFLEX® CONTROL TM refer to page 47
- ÖLFLEX® TRAY II refer to page 49
- ÖLFLEX® CONTROL M refer to page 71

Accessories

- SKINTOP® CLICK refer to page 654
- SKINTOP® ST-M refer to page 652
- Cable shears KT 4 and KT 5 refer to page 904

Various applications

PVC sheath, approved

ÖLFLEX® 191 CY



Info

- Conductor cross-section up to 120 mm²
- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43
- EMC-compliant

Benefits

- High electrical performance due to 4 kV test voltage
- For various applications

Application range

- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- In EMC-sensitive environments (electromagnetic compatibility)
- Mainly used in dry, damp and wet interiors (including water-oil mixtures), but not for outdoor use
- For fixed installation under medium mechanical load conditions, and applications with occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2012: please see the catalogue appendix table T29

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- PVC core insulation
- PVC inner sheath, grey
- Tinned-copper braiding
- PVC outer sheath, high oil-resistance, grey (RAL 7001)

Product features

- Flame-retardant according to IEC 60332-1-2 and UL 1581 §1061 Cable Flame Test
- Oil-resistant according to HD21.1: TM5 and UL 1581 Class 43
- High degree of screening
low transfer impedance (max. 250 Ω/km at 30 MHz)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL AWM Style 21098 or 2587
CSA AWM I A/B II A/B
- Specific insulation resistance**
> 20 GΩhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
HAR U₀/U: 300/500 V
UL/CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing:
HAR: -5 °C to +70 °C
UL/CSA: -5 °C to +90 °C
Fixed installation:
HAR: -40 °C to +70 °C
UL/CSA: -40 °C to +90 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 191 CY				
3023436	3 G 0.5	8.0	46.9	122
3025753	4 G 0.5	8.5	47.4	130
0011230	2 X 0.75	8.1	38.4	102
0011231	3 G 0.75	8.5	47.2	115
0011232	4 G 0.75	9.0	55.8	131
0011233	5 G 0.75	9.9	66.4	155
0011234	7 G 0.75	10.5	85.9	187
0011235	12 G 0.75	14.0	145.0	312
0011236	18 G 0.75	16.1	198.3	413
0011237	25 G 0.75	18.9	261.5	548
0011202	2 X 1.0	8.0	48.0	126
0011180	3 G 1.0	8.8	55.8	122
0011181	4 G 1.0	9.6	80.8	157
0011182	5 G 1.0	10.1	89.4	183
0011183	7 G 1.0	10.7	99.9	207
0011184	12 G 1.0	14.6	175.7	342
0011185	18 G 1.0	16.5	241.7	472
0011186	25 G 1.0	19.2	341.7	648
0011302	2 X 1.5	8.9	64.7	156
0011187	3 G 1.5	9.3	89.1	166
0011188	4 G 1.5	10.1	96.6	191
0011189	5 G 1.5	11.0	111.2	222
0011190	7 G 1.5	12.1	145.2	270

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0011191	12 G 1.5	16.0	257.0	464
0011192	18 G 1.5	18.8	382.8	679
0011193	25 G 1.5	22.9	546.2	952
0011194	3 G 2.5	10.9	111.1	221
0011195	4 G 2.5	11.4	140.6	269
0011196	5 G 2.5	12.9	167.3	325
0011197	7 G 2.5	14.1	240.0	421
30010542	12 G 2.5	17.9	414.9	769
30010543	18 G 2.5	22.0	626.1	1102
30010544	4 G 4	13.6	236.7	462
30010545	5 G 4	14.9	277.8	535
30010546	7 G 4	16.2	393.4	735
30010548	4 G 6	15.8	317.1	574
3023130	5 G 6	17.3	413.7	737
30010547	7 G 6	18.8	563.8	950
3023131	4 G 10	19.5	550.4	946
30010639	4 G 16	24.7	819.1	1189
3023132	4 G 25	28.5	1,165.0	1691.67
30010928	4 G 35	31.7	1,683.0	2700
3026535	4 G 50	39.7	2,342.0	3362
3025946	4 G 70	44.8	3,229.0	4490
3025947	4 G 95	50.0	4,010.0	5540
3026536	4 G 120	61.3	5,012.0	6960

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 600 m drum or 8 x 75 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 150 CY QUATTRO refer to page 44
- ÖLFLEX® CONTROL TM CY refer to page 48
- ÖLFLEX® TRAY II CY refer to page 50

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669
- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® CONTROL TM



Info

- Complies with NFPA 70 and 79 "Electrical Standard of Industrial Machinery" USA
- Improved oil-resistance: UL OIL RES I & II
- Torsion-tested for wind turbines

Benefits

- Wide application range due to multiple approvals
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)

Application range

- Industrial machinery; plant engineering
- Machine tools compliant with UL MTW (Machine Tool Wiring)
- TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)
- Wind turbines: USA Wind Turbine Tray Cable (WTTTC)
- Class 1, Div. 2 in accordance with NEC "National Electrical Code" Art. 336, 392, 501

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Water-resistant, UL Wet Approval 75 °C
- Torsion-tested for wind turbines

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Outer sheath made of special PVC compound, grey

Technical data

- Core identification code**
Black with white numbers
- Approvals**
UL MTW, TC-ER, WTTTC 1000 V, BUS DROP c(UL) Type TC and CIC FT4
CSA AWM I/II A/B FT4
UL AWM Style 20886
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine-wire, bare copper strand
- Minimum bending radius**
6 x outer diameter
- Nominal voltage**
UL/CSA: 600 V (TC, MTW, CIC), WTTTC 1000V
UL/CSA: 1000 V (AWM)
HAR U_o/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL TM				
281803	3 G 1.0	7.4	28.8	82
281804	4 G 1.0	8.0	38.4	95
281805	5 G 1.0	8.6	48.0	112
281807	7 G 1.0	9.3	67.0	144
281812	12 G 1.0	12.0	115.0	247
281818	18 G 1.0	14.7	173.0	365
281825	25 G 1.0	16.7	240.0	464
281602	2 X 1.5	7.3	28.8	74
281603	3 G 1.5	8.1	43.0	100
281604	4 G 1.5	8.8	58.0	119
281605	5 G 1.5	9.5	72.0	141
281607	7 G 1.5	10.3	101.0	183
281609	9 G 1.5	11.9	129.6	247
281612	12 G 1.5	14.1	173.0	328
281618	18 G 1.5	16.4	259.0	403
281625	25 G 1.5	18.6	360.0	464
281403	3 G 2.5	8.9	72.0	125
281404	4 G 2.5	9.8	96.0	155
281405	5 G 2.5	10.7	120.0	185
281407	7 G 2.5	11.6	168.0	244
281203	3 G 4	10.6	115.0	165
281204	4 G 4	11.5	154.0	220
281205	5 G 4	12.6	192.0	269
281207	7 G 4	14.6	269.0	482
281004	4 G 6	14.5	231.0	382
281005	5 G 6	15.8	288.0	457
280804	4 G 10	17.7	384.0	615
280805	5 G 10	19.4	480.0	771
280604	4 G 16	22.5	615.0	864

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

Copper price basis: EUR 150/100kg. Refer to 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 610 m drum or 8 x 76 m coils).

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

Similar products

- ÖLFLEX® TRAY II refer to page 49
- ÖLFLEX® CONTROL M refer to page 71

Accessories

- SKINTOP® MS-M refer to page 662
- SKINTOP® ST-M refer to page 652

Various applications

PVC sheath, approved

ÖLFLEX® CONTROL TM CY



Info

- Complies with NFPA 70 and 79 "Electrical Standard of Industrial Machinery" USA
- Improved oil-resistance: UL OIL RES I & II
- Torsion-tested for wind turbines

Benefits

- Wide application range due to multiple approvals
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)

Application range

- Industrial machinery; plant engineering
- Machine tools compliant with UL MTW (Machine Tool Wiring)
- TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)
- Wind turbines: USA Wind Turbine Tray Cable (W TTC)
- Class 1, Div. 2 in accordance with NEC "National Electrical Code" Art. 336, 392, 501

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Water-resistant, UL Wet Approval 75 °C
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)
- Torsion-tested for wind turbines

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Aluminum-coated foil
- Tinned-copper braiding
- Outer sheath made of special PVC compound, grey

Technical data

- Core identification code**
Black with white numbers
- Approvals**
UL MTW, TC-ER, W TTC 1000 V, BUS DROP c(UL) Type TC and CIC FT4
CSA AWM I/II A/B FT4
UL AWM Style 20886
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine-wire, bare copper strand
- Minimum bending radius**
Fixed installation: 6 x outer diameter
- Nominal voltage**
UL/CSA: 600 V (TC, MTW, CIC), W TTC 1000V
UL/CSA: 1000 V (AWM)
HAR U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation: -40 °C to +90 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL TM CY				
281803CY	3 G 1.0	8.1	49.5	119
281804CY	4 G 1.0	8.6	60.2	137
281805CY	5 G 1.0	9.3	81.4	149
281807CY	7 G 1.0	10.0	101.1	193
281812CY	12 G 1.0	12.8	161.4	330
281818CY	18 G 1.0	15.5	228.2	438
281825CY	25 G 1.0	17.5	326.4	574
281602CY	2 X 1.5	8.3	49.7	115
281603CY	3 G 1.5	8.8	65.0	144
281604CY	4 G 1.5	9.4	81.9	173
281605CY	5 G 1.5	10.2	99.1	189
281607CY	7 G 1.5	11.1	140.4	246
281612CY	12 G 1.5	15.0	225.2	426
281618CY	18 G 1.5	17.2	321.7	552
281625CY	25 G 1.5	19.4	453.6	750
281403CY	3 G 2.5	9.7	105.7	180
281404CY	4 G 2.5	10.4	135.6	223
281405CY	5 G 2.5	11.5	160.3	268
281407CY	7 G 2.5	12.4	213.0	327
281204CY	4 G 4	12.3	198.5	315
281205CY	5 G 4	14.2	242.7	388
281207CY	7 G 4	15.3	323.4	499
281004CY	4 G 6	15.3	284.6	552
281005CY	5 G 6	16.7	348.8	613
280804CY	4 G 10	18.5	458.4	857
280604CY	4 G 16	22.9	723.6	1208

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAY II CY refer to page 50

Accessories

- SKINTOP® MS-SC-M refer to page 668

ÖLFLEX® TRAY II



Info

- Complies with NFPA 70 and 79 "Electrical Standard of Industrial Machinery" USA
- Improved oil-resistance: UL OIL RES I & II
- Torsion-tested for wind turbines

Benefits

- Wide application range due to multiple approvals
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)

Application range

- Industrial machinery; plant engineering
- TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)
- Wind turbines: USA Wind Turbine Tray Cable (WTTTC)
- Class 1, Div. 2 in accordance with NEC "National Electrical Code" Art. 336, 392, 501
- Suitable for outdoor use and direct burial

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Water-resistant, UL Wet Approval 75 °C
- UV-resistant UL SUN RES
- Torsion-tested for wind turbines



Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T 16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Outer sheath made of special PVC compound, black

Technical data

- Core identification code**
Black with white numbers
- Approvals**
UL MTW, TC-ER, WTTTC 1000 V, BUS DROP c(UL) Type TC and CIC FT4
CSA AWM I/II A/B FT4
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine copper wire strands
- Minimum bending radius**
5 x outer diameter
- Nominal voltage**
UL/CSA: 600 V (TC, MTW, CIC), WTTTC 1000V
UL/CSA: 1000 V (AWM)
HAR U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® Tray II					
221803	3 G 1.0		7.5	28.8	85
221804	4 G 1.0		8.1	38.4	98
221805	5 G 1.0		8.8	48.0	115
221807	7 G 1.0		9.5	67.0	149
221809	9 G 1.0		10.9	87.0	167
221812	12 G 1.0		12.1	115.0	255
221818	18 G 1.0		14.9	173.0	365
221825	25 G 1.0		16.9	240.0	479
221603	3 G 1.5		8.3	43.0	103
221604	4 G 1.5		8.9	58.0	124
221605	5 G 1.5		9.7	72.0	146
221607	7 G 1.5		10.5	101.0	189
221608	8 G 1.5		11.3	116.0	203
221609	9 G 1.5		12.1	130.0	255
221612	12 G 1.5		14.4	173.0	328
221618	18 G 1.5		16.6	259.0	431
221625	25 G 1.5		18.8	360.0	592
221641	41 G 1.5		25.0	591.0	931
221650	50 G 1.5		26.6	720.0	1132
221403	3 G 2.5		9.2	72.0	130
221404	4 G 2.5		10.0	96.0	159
221405	5 G 2.5		10.8	120.0	191
221407	7 G 2.5		11.8	168.0	252
221409	9 G 2.5		14.5	216.0	335
221412	12 G 2.5		16.2	288.0	459
221418	18 G 2.5		18.7	432.0	654
221425	25 G 2.5		22.5	600.0	874
221204	4 G 4		11.7	153.0	226
221205	5 G 4		12.8	192.0	279
221207	7 G 4		14.8	269.0	384
221004	4 G 6		14.7	231.0	394
221005	5 G 6		16.0	288.0	472
221007	7 G 6		17.4	405.0	661
220804	4 G 10		17.9	384.0	615
220805	5 G 10		19.6	480.0	771
220604	4 G 16		22.8	615.0	864
220605	5 G 16		24.9	768.0	1080
220404	4 G	4	27.8	960.0	1418
220204	4 G	2	32.3	1,344.0	2077

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CONTROL TM refer to page 47
- ÖLFLEX® CONTROL M refer to page 71

Accessories

- SKINTOP® MS-M refer to page 662
- SKINTOP® ST-M refer to page 652

ÖLFLEX® TRAY II CY



Info

- Complies with NFPA 70 and 79 "Electrical Standard of Industrial Machinery" USA
- Improved oil-resistance: UL OIL RES I & II
- Torsion-tested for wind turbines

Benefits

- Wide application range due to multiple approvals
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)

Application range

- Industrial machinery; plant engineering
- TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)
- Wind turbines: USA Wind Turbine Tray Cable (WTTC)
- Class 1, Div. 2 in accordance with NEC "National Electrical Code" Art. 336, 392, 501
- Suitable for outdoor use and direct burial

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Water-resistant, UL Wet Approval 75 °C
- UV-resistant UL SUN RES
- Torsion-tested for wind turbines

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Aluminum-coated foil
- Tinned-copper braiding
- Outer sheath made of special PVC compound, black

Technical data

- Core identification code**
Black with white numbers
- Approvals**
UL MTW, TC-ER, WTTC 1000 V, BUS DROP c(UL) Type TC and CIC FT4
CSA AWM I/II A/B FT4
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine copper wire strands
- Minimum bending radius**
5 x outer diameter
- Nominal voltage**
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000V
UL/CSA: 1000 V (AWM)
HAR U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® Tray II CY					
2218030	3 G 1.0		8.2	35.1	119
2218040	4 G 1.0		8.8	55.2	137
2218050	5 G 1.0		9.4	65.8	149
2218070	7 G 1.0		10.1	86.9	193
2218120	12 G 1.0		12.9	149.3	330
2218180	18 G 1.0		15.7	214.2	438
2218250	25 G 1.0		17.7	354.2	574
2216030	3 G 1.5		8.9	59.8	144
2216040	4 G 1.5		9.6	74.5	173
2216050	5 G 1.5		10.3	93.5	189
2216070	7 G 1.5		11.3	130.5	246
2216120	12 G 1.5		15.1	213.8	426
2216180	18 G 1.5		17.3	312.4	515
2216250	25 G 1.5		19.6	415.6	708
2214030	3 G 2.5		9.8	91.2	180
2214040	4 G 2.5		10.7	125.7	223
2214050	5 G 2.5		11.6	150.1	268
2214070	7 G 2.5		12.5	201.2	327
2214120	12 G 2.5		16.9	333.6	595
2214180	18 G 2.5		19.5	487.6	784
2214250	25 G 2.5		23.3	685.1	1048
2212040	4 G 4		12.5	186.4	315
2212050	5 G 4		14.4	232.6	388
2212070	7 G 4		15.5	310.2	499
2210040	4 G 6		15.5	271.7	552
2210070	7 G 6		18.2	457.4	856
2208040	4 G 10		18.7	438.6	857
2206040	4 G 16		23.3	699.0	1208
2204040	4 G	4	28.6	1,296.8	1982
2202040	4 G	2	33.2	1,899.5	2903

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 610 m drum or 8 x 76 m coils).
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CONTROL TM CY refer to page 48

Accessories

- SKINTOP® MS-SC-M refer to page 668

ÖLFLEX® SF



Info

- Super-flexible cable for handheld equipment
- Ozone-resistant according to EN 50396



Application range

- Very suitable for domestic appliances, electrical power tools, and various handyman tools
- H05VV-F cable types may not be used in commercial premises, with the exception of offices.
- Not for permanent outdoor use.

Product features

- Flame-retardant according to IEC 60332.1.2
- Highly flexible at cold temperatures
- Design and geometry in compliance with harmonisation document
- Ozone-resistant according to EN 50396

Approvals



Design

- Super-fine strands of bare copper wire with an individual wire diameter of 0.07 mm
- PVC core insulation, cold-resistant
- PVC outer sheath, cold-resistant, orange (RAL 2003)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Super-fine wire
(diameter of each wire is 0.07 mm)
- Minimum bending radius**
Occasional flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -15 °C to +60 °C
- VDE-tested**
Type H05VV-F acc. to VDE 0281-5, from 6 cores: based on VDE 0281-5

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SF				
0027590	2 X 0.75	6.4	14.9	50
0027591	3 G 0.75	6.9	22.3	60
00275923	4 G 0.75	7.7	29.7	73
00275933	5 G 0.75	8.7	37.1	88
0027594	7 G 0.75	10.4	51.5	109
0027600	2 X 1.0	6.8	20.1	74
0027601	3 G 1.0	7.4	30.2	87
00276033	5 G 1.0	9.2	50.8	130
0027701	3 G 1.5	8.7	44.8	116
00277023	4 G 1.5	9.9	61.0	166
00277033	5 G 1.5	11.1	72.0	184

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 500 P refer to page 74
- ÖLFLEX® 550 P refer to page 77

Accessories

- SKINTOP® ST-M refer to page 652
- STAR STRIP stripping tool refer to page 906

ÖLFLEX® CLASSIC 100 H



Info

- Please note: discontinued product! <Reduced range of sizes>
- For sizes with conductor cross section smaller than 35 mm² see ÖLFLEX® CLASSIC 130 H BK 0.6/1 kV

Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Oil-resistant according to SEV TB 20 B

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Sheath made of special halogen-free compound, grey

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Based on**
HD 21.13 S 1; VDE 0281 Part 13
HD 21.5; VDE 0281 Part 5
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 450/750 VAC
In protected and fixed installations:
U₀/U: 600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -30 °C to +70 °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)
00141173	4 G 35	32.8	1,344.0	2060
00141183	5 G 35	37.6	1,680.0	2577
00141193	4 G 50	38.0	1,920.0	2811
00141203	4 G 70	42.8	2,688.0	3968
00141213	4 G 95	47.1	3,648.0	4957
00141223	4 G 120	52.4	4,608.0	6391

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).
Single lengths for sizes: ≥ 4G50 max. 500 m; ≥ 4G120 max. 400 m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59

Accessories

- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® CLASSIC 110 H

VDE-tested characteristics



Info

- High flexibility and oil-resistance
- VDE-certified
- UV and weather-resistant according to ISO 4892-2

Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
Stage applications
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)

- Low smoke density according to IEC 61034
- Oil-resistant according to EN 60811-2-1 and UL OIL RES I and UL OIL RES II
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Outer sheath made of special halogen-free compound, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 21.13 S1; VDE 0281 Part 13
HD 21.5; VDE 0281 Part 5
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -30 °C to +70 °C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 H U₀/U: 300/500 V				
10019900	2 X 0.5	5.1	9.6	41
10019901	3 G 0.5	5.4	14.4	49
10019902	3 X 0.5	5.4	14.4	49
10019903	4 G 0.5	5.8	19.2	58
10019904	4 X 0.5	5.8	19.2	58
10019905	5 G 0.5	6.3	24.0	69
10019906	7 G 0.5	6.9	33.6	87
10019907	12 G 0.5	9.1	57.6	141
10019910	2 X 0.75	5.5	14.4	51
10019911	3 G 0.75	5.8	21.6	61
10019912	3 X 0.75	5.8	21.6	61
10019913	4 G 0.75	6.3	28.8	73
10019914	4 X 0.75	6.3	28.8	73
10019915	5 G 0.75	6.9	36.0	87
10019916	5 X 0.75	6.9	36.0	87
10019917	7 G 0.75	7.5	50.4	111
10019918	7 X 0.75	7.5	50.4	111
10019919	9 G 0.75	9.6	64.8	150
10019920	12 G 0.75	10.1	86.4	186
10019921	18 G 0.75	12.0	129.6	265
10019922	25 G 0.75	14.1	180.0	365
10019960	2 X 1.0	5.8	19.2	59
10019961	3 G 1.0	6.1	28.8	72
10019962	3 X 1.0	6.1	28.8	72
10019963	4 G 1.0	6.6	38.4	87
10019964	4 X 1.0	6.6	38.4	87
10019965	5 G 1.0	7.3	48.0	104
10019967	7 G 1.0	8.1	67.2	138
10019968	8 G 1.0	9.7	76.8	164
10019969	12 G 1.0	10.7	115.2	225
10019970	14 G 1.0	11.4	134.4	261
10019971	18 G 1.0	12.9	172.8	328
10019972	25 G 1.0	15.0	240.0	445

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
10019973	41 G 1.0	19.2	393.6	719
10019930	2 X 1.5	6.4	28.8	76
10019931	3 G 1.5	6.8	43.2	94
10019980	3 X 1.5	6.8	43.2	94
10019932	4 G 1.5	7.4	57.6	115
10019933	5 G 1.5	8.3	72.0	142
10019934	7 G 1.5	9.0	100.8	184
10019981	8 G 1.5	10.8	115.2	218
10019982	9 G 1.5	11.6	129.6	245
10019935	12 G 1.5	12.2	172.8	308
10019936	14 G 1.5	13.0	201.6	357
10019937	18 G 1.5	14.6	259.2	449
10019938	25 G 1.5	17.2	360.0	617
10019927	34 G 1.5	19.8	489.6	821
10019944	2 X 2.5	7.6	48.0	113
10019945	3 G 2.5	8.3	72.0	146
10019946	4 G 2.5	9.0	96.0	180
10019947	5 G 2.5	10.1	120.0	221
10019948	7 G 2.5	11.2	168.0	295
10019949	12 G 2.5	15.1	288.0	491
10019950	4 G 4	10.8	153.6	268
10019951	5 G 4	12.1	192.0	328
10019952	7 G 4	13.4	268.8	438
10019953	4 G 6	13.0	230.4	391
10019954	5 G 6	14.5	288.0	478
10019975	7 G 6	16.0	403.2	638
10019851	4 G 10	16.2	384.0	635
10019852	5 G 10	18.1	480.0	775
10019849	4 G 16	18.8	614.4	930
10019853	5 G 16	21.2	768.0	1147
10019854	4 G 25	23.5	960.0	1442
10019855	5 G 25	26.4	1,200.0	1773
10019856	4 G 35	26.6	1,344.0	1917

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 130 H refer to page 57
- ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59

Accessories

- SKINTOP® ST-HF-M refer to page 656
- MULTICRIMP 6 crimping pliers refer to page 915

ÖLFLEX® CLASSIC 110 CH

VDE-tested characteristics



Info

- High flexibility and oil-resistance
- VDE-certified
- UV and weather-resistant according to ISO 4892-2

Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards
- In EMC-sensitive environments (electromagnetic compatibility)

- Low smoke density according to IEC 61034
- Oil-resistant according to EN 60811-2-1 and UL OIL RES I and UL OIL RES II
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Halogen-free inner sheath, grey
- Tinned-copper braiding
- Outer sheath made of special halogen-free compound, grey (RAL 7001)

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 21.13 S1; VDE 0281 Part 13
HD 21.5; VDE 0281 Part 5
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -30 °C to +70 °C
Fixed installation: -40 °C to +80 °C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 CH U₀/U: 300/500 V				
10035030	2 X 0.5	7.1	29.1	85
10035031	3 G 0.5	7.4	35.1	95
10035032	3 X 0.5	7.4	35.1	95
10035033	4 G 0.5	8.0	41.4	111
10035034	4 X 0.5	8.0	41.4	111
10035035	5 G 0.5	8.6	48.0	126
10035036	7 G 0.5	9.1	59.9	148
10035037	12 G 0.5	11.5	91.4	226
10035040	2 X 0.75	7.7	35.4	101
10035041	3 G 0.75	8.0	43.8	114
10035042	3 X 0.75	8.0	43.8	114
10035043	4 G 0.75	8.5	52.8	130
10035044	4 X 0.75	8.5	52.8	130
10035045	5 G 0.75	9.3	62.3	153
10035046	5 X 0.75	9.3	62.3	153
10035047	7 G 0.75	9.9	79.5	183
10035048	7 X 0.75	9.9	79.5	183
10035050	12 G 0.75	12.5	123.2	280
10035051	18 G 0.75	14.8	188.6	399
10035052	25 G 0.75	16.9	247.5	522
10035055	2 X 1.0	8.0	41.4	112
10035056	3 G 1.0	8.4	52.1	127
10035057	3 X 1.0	8.4	52.1	127
10035058	4 G 1.0	8.9	73.5	157
10035059	4 X 1.0	8.9	73.5	157
10035060	5 G 1.0	9.7	83.2	171
10035061	7 G 1.0	10.3	97.2	210
10035062	12 G 1.0	13.6	168.7	347
10035063	18 G 1.0	15.7	235.4	474
10035064	25 G 1.0	17.8	312.0	611

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
10035065	41 G 1.0	22.4	508.0	969
10035067	2 X 1.5	8.6	53.2	134
10035068	3 G 1.5	9.0	69.1	155
10035069	3 X 1.5	9.0	69.1	155
10035070	4 G 1.5	9.8	85.8	186
10035071	5 G 1.5	10.5	102.8	215
10035072	7 G 1.5	11.4	134.2	269
10035073	12 G 1.5	15.0	232.8	445
10035074	18 G 1.5	17.4	327.8	610
10035075	25 G 1.5	20.4	463.2	843
10035089	3 G 2.5	10.5	102.8	220
10035090	4 G 2.5	11.4	129.4	265
10035091	5 G 2.5	12.7	157.5	322
10035092	7 G 2.5	14.0	223.0	422
10035093	12 G 2.5	17.9	360.5	659
10035094	4 G 4	13.6	207.6	390
10035095	5 G 4	14.9	251.5	463
10035096	7 G 4	16.2	333.9	588
10035097	4 G 6	15.8	294.8	516
10035098	5 G 6	17.3	356.1	616
10035099	7 G 6	18.8	479.3	792
10035380	4 G 10	19.1	461.1	789
10035381	5 G 10	21.4	586.6	998
10035382	4 G 16	22.3	727.6	1154
10035383	5 G 16	24.5	888.7	1389
10035384	4 G 25	27.0	1,123.9	1807
10035386	4 G 35	30.4	1,529.2	2321
0035388	4 G 50	36.5	2,162.0	3741
0035390	4 G 70	41.6	2,973.0	5054
0035392	4 G 95	47.9	3,966.0	6427

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 Single lengths for sizes: ≥ 4G50 max. 500 m
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 135 CH refer to page 58
- ÖLFLEX® CLASSIC 135 CH BK 0,6/1kV refer to page 60

Accessories

- SKINTOP® MS-M BRUSH refer to page 669
- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® 120 H



Info

- Flexible at temperatures down to -25 °C
- Other sizes on request



Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Flexible down to -25°C

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Outer sheath made of special halogen-free compound, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 10 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -25°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 120 H U₀/U: 300/500 V				
1021902	2 X 1.5	6.3	29.0	63
1021303	3 G 1.5	6.7	43.0	79
1021304	4 G 1.5	7.2	58.0	98
1021305	5 G 1.5	8.1	72.0	120
1021307	7 G 1.5	8.9	101.0	158
1021312	12 G 1.5	12.0	173.0	265
1021318	18 G 1.5	14.4	259.0	388
1021325	25 G 1.5	16.9	360.0	535
1021403	3 G 2.5	8.1	72.0	124
1021404	4 G 2.5	8.9	96.0	154
1021405	5 G 2.5	10.0	120.0	189
1021407	7 G 2.5	11.1	168.0	254
1021412	12 G 2.5	14.8	288.0	425
1021504	4 G 4	10.8	154.0	236
1021604	4 G 6	13.0	230.0	350

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 H refer to page 53
- ÖLFLEX® CLASSIC 130 H refer to page 57
- ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59

Accessories

- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® CLASSIC 130 H
VDE-tested characteristics



Info

- VDE-certified

Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
Stage applications
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Low smoke density according to IEC 61034

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Outer sheath made of special halogen-free compound, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0281 Part 14
- Specific insulation resistance**
> 10 MOhm x km
- 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**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 130 H				
1123000	2 X 0.5	5.1	9.6	36
1123001	3 G 0.5	5.4	14.4	42
1123002	3 X 0.5	5.4	14.4	42
1123003	4 G 0.5	5.8	19.2	55
1123004	4 X 0.5	5.8	19.2	55
1123005	5 G 0.5	6.3	24.0	65
1123006	5 X 0.5	6.3	24.0	65
1123008	7 G 0.5	6.9	33.6	80
1123009	7 X 0.5	6.9	33.6	80
1123010	8 G 0.5	8.2	38.4	103
1123012	10 G 0.5	8.8	48.0	112
1123013	12 G 0.5	9.1	57.6	128
1123017	18 G 0.5	10.8	86.4	189
1123020	25 G 0.5	12.7	120.0	260
1123021	30 G 0.5	13.6	144.0	294
1123032	2 X 0.75	5.5	14.4	47
1123033	3 G 0.75	5.8	21.6	56
1123034	3 X 0.75	5.8	21.6	56
1123035	4 G 0.75	6.3	28.8	69
1123036	4 X 0.75	6.3	28.8	69
1123037	5 G 0.75	6.9	36.0	83
1123038	5 X 0.75	6.9	36.0	83
1123041	7 G 0.75	7.5	50.4	104
1123042	7 X 0.75	7.5	50.4	104
1123046	10 G 0.75	9.8	72.0	149
1123047	12 G 0.75	10.1	86.4	172
1123048	12 X 0.75	10.1	86.4	172
1123051	18 G 0.75	12.0	129.6	252
1123054	25 G 0.75	14.1	180.0	352
1123056	34 G 0.75	16.3	244.8	466
1123066	2 X 1.0	5.8	19.2	55
1123067	3 G 1.0	6.1	28.8	67
1123068	3 X 1.0	6.1	28.8	67
1123069	4 G 1.0	6.6	38.4	83
1123070	4 X 1.0	6.6	38.4	83
1123071	5 G 1.0	7.3	48.0	100
1123072	5 X 1.0	7.3	48.0	100
1123074	7 G 1.0	8.1	67.2	130
1123075	7 X 1.0	8.1	67.2	130
1123076	8 G 1.0	9.7	76.8	164
1123078	10 G 1.0	10.4	96.0	183
1123080	12 G 1.0	10.7	115.2	212

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123081	12 X 1.0	10.7	115.2	212
1123083	16 G 1.0	12.1	153.6	275
1123084	18 G 1.0	12.9	172.8	314
1123090	25 G 1.0	15.0	240.0	429
1123094	34 G 1.0	17.5	326.4	570
1123106	2 X 1.5	6.4	28.8	72
1123107	3 G 1.5	6.8	43.2	88
1123108	3 X 1.5	6.8	43.2	88
1123109	4 G 1.5	7.4	57.6	110
1123110	4 X 1.5	7.4	57.6	110
1123111	5 G 1.5	8.3	72.0	135
1123112	5 X 1.5	8.3	72.0	135
1123114	7 G 1.5	9.0	100.8	174
1123115	7 X 1.5	9.0	100.8	174
1123116	8 G 1.5	10.8	115.2	223
1123118	10 G 1.5	11.8	144.0	250
1123120	12 G 1.5	12.2	172.8	289
1123124	18 G 1.5	14.6	259.2	433
1123128	25 G 1.5	17.2	360.0	596
1123130	34 G 1.5	19.8	489.6	786
1123139	2 X 2.5	7.6	48.0	110
1123140	3 G 2.5	8.3	72.0	137
1123142	4 G 2.5	9.0	96.0	174
1123144	5 G 2.5	10.1	120.0	217
1123146	7 G 2.5	11.2	168.0	283
1123149	12 G 2.5	15.1	288.0	467
1123151	18 G 2.5	18.0	432.0	696
1123153	25 G 2.5	21.1	600.0	969
1123159	3 G 4	9.8	115.2	213
1123160	4 G 4	10.8	153.6	267
1123161	5 G 4	12.1	192.0	331
1123162	7 G 4	13.4	268.8	432
1123166	3 G 6	11.7	172.8	303
1123167	4 G 6	13.0	230.4	388
1123168	5 G 6	14.5	288.0	480
1123169	7 G 6	16.0	403.2	626
1123172	4 G 10	16.2	384.0	601
1123173	5 G 10	18.1	480.0	735
1123177	4 G 16	18.8	614.4	917
1123178	5 G 16	21.2	768.0	1148
1123181	4 G 25	23.5	960.0	1418
1123182	5 G 25	26.4	1,200.0	1769
1123185	4 G 35	26.6	1,344.0	1905

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 130 H BK 0,6/1kV refer to page 59
- ÖLFLEX® CLASSIC 110 H refer to page 53

Accessories

- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® CLASSIC 135 CH

VDE-tested characteristics



Info

- VDE-certified
- EMC-compliant

Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards
- In EMC-sensitive environments (electromagnetic compatibility)

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Halogen-free plastic foil wrapping
- Tinned-copper braiding
- Outer sheath made of special halogen-free compound, grey (RAL 7001)

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Low smoke density according to IEC 61034

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0281 Part 14
- Specific insulation resistance**
> 10 MOhm x km
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
Core/core: 4000 V
Core/screen: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 135 CH				
1123200	2 X 0.5	5.9	36.0	51
1123201	3 G 0.5	6.2	43.0	61
1123202	3 X 0.5	6.2	43.0	61
1123203	4 G 0.5	6.6	49.0	72
1123204	4 X 0.5	6.6	49.0	72
1123205	5 G 0.5	7.1	57.0	85
1123206	5 X 0.5	7.1	57.0	85
1123208	7 G 0.5	7.7	69.0	103
1123209	7 X 0.5	7.7	69.0	103
1123213	12 G 0.5	10.1	104.0	165
1123217	18 G 0.5	11.8	141.0	236
1123220	25 G 0.5	13.7	224.0	324
1123232	2 X 0.75	6.3	43.0	60
1123233	3 G 0.75	6.6	52.0	77
1123234	3 X 0.75	6.6	52.0	77
1123235	4 G 0.75	7.1	61.0	87
1123236	4 X 0.75	7.1	61.0	87
1123237	5 G 0.75	7.9	72.0	106
1123238	5 X 0.75	7.9	72.0	106
1123241	7 G 0.75	8.5	89.0	129
1123242	7 X 0.75	8.5	89.0	129
1123247	12 G 0.75	11.1	138.0	211
1123248	12 X 0.75	11.1	138.0	211
1123251	18 G 0.75	13.0	211.0	307
1123254	25 G 0.75	15.1	280.0	413
1123266	2 X 1.0	6.6	51.0	79
1123267	3 G 1.0	6.9	62.0	88
1123268	3 X 1.0	6.9	62.0	88
1123269	4 G 1.0	7.4	74.0	106
1123270	4 X 1.0	7.4	74.0	106
1123271	5 G 1.0	8.3	88.0	124
1123272	5 X 1.0	8.3	88.0	124
1123274	7 G 1.0	8.9	112.0	155
1123275	7 X 1.0	8.9	112.0	155
1123280	12 G 1.0	11.7	185.0	250
1123281	12 X 1.0	11.7	185.0	250

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123284	18 G 1.0	14.1	268.0	368
1123290	25 G 1.0	16.2	354.0	493
1123291	25 X 1.0	16.2	354.0	493
1123306	2 X 1.5	7.2	65.0	91
1123307	3 G 1.5	7.6	82.0	112
1123308	3 X 1.5	7.6	82.0	112
1123309	4 G 1.5	8.4	100.0	141
1123310	4 X 1.5	8.4	100.0	141
1123311	5 G 1.5	9.1	119.0	161
1123312	5 X 1.5	9.1	119.0	161
1123314	7 G 1.5	10.0	154.0	206
1123315	7 X 1.5	10.0	154.0	206
1123320	12 G 1.5	13.4	268.0	355
1123324	18 G 1.5	15.8	373.0	517
1123328	25 G 1.5	18.2	530.0	705
1123339	2 X 2.5	8.6	96.0	128
1123340	3 G 2.5	9.1	118.0	157
1123342	4 G 2.5	10.0	147.0	201
1123344	5 G 2.5	11.1	176.0	248
1123346	7 G 2.5	12.0	253.0	313
1123349	12 G 2.5	16.3	385.0	524
1123359	3 G 4	10.6	178.0	231
1123360	4 G 4	11.8	248.0	291
1123361	5 G 4	13.3	269.0	361
1123362	7 G 4	14.6	371.0	468
1123366	3 G 6	12.7	240.0	318
1123367	4 G 6	14.2	343.0	437
1123368	5 G 6	15.5	441.0	510
1123369	7 G 6	17.0	510.0	662
1123372	4 G 10	17.2	535.0	685
1123373	5 G 10	19.5	592.0	824
1123374	7 G 10	21.4	820.0	1067
1123377	4 G 16	20.2	736.0	1036
1123378	5 G 16	22.6	895.0	1285
1123381	4 G 25	25.1	1,129.0	1663
1123382	5 G 25	28.0	1,400.0	1976
1123385	4 G 35	28.2	1,546.0	2052

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 CH refer to page 54
- ÖLFLEX® CLASSIC 135 CH BK 0,6/1kV refer to page 60

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® CLASSIC 130 H BK 0,6/1kV

VDE-tested characteristics



Info

- Colour-coded up to 5 cores
Numbered from 6 cores up
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396



Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards
- For outdoor applications

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Low smoke density according to IEC 61034
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Outer sheath made of special halogen-free compound, black (RAL 9005)

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Based on**
HD 21.14 S1
VDE 0281 Part 14
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - coloured cores				
1123410	2 X 1.0	8.6	19.2	107
1123411	3 G 1.0	9.0	28.8	123
1123412	4 G 1.0	9.6	38.4	144
1123413	5 G 1.0	10.4	48.0	167
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - numbered cores				
1123414	7 G 1.0	11.1	67.2	206
1123415	12 G 1.0	14.0	115.2	314
1123416	18 G 1.0	16.1	172.8	428
1123417	25 G 1.0	18.6	240.0	569
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - coloured cores				
1123418	2 X 1.5	9.6	28.8	137
1123419	3 G 1.5	10.1	43.2	161
1123420	4 G 1.5	10.8	57.6	190
1123421	5 G 1.5	11.7	72.0	221
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - numbered cores				
1123422	7 G 1.5	12.6	100.8	276
1123423	12 G 1.5	16.1	172.8	427
1123424	18 G 1.5	18.8	259.2	596
1123425	25 G 1.5	21.7	360.0	799
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - coloured cores				
1123426	2 X 2.5	10.8	48.0	184

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123427	3 G 2.5	11.3	72.0	219
1123428	4 G 2.5	12.2	96.0	262
1123429	5 G 2.5	13.3	120.0	307
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - numbered cores				
1123430	7 G 2.5	14.4	168.0	390
1123431	12 G 2.5	18.7	288.0	624
1123432	18 G 2.5	22.0	432.0	879
1123433	25 G 2.5	25.8	600.0	1212
ÖLFLEX® CLASSIC 130 H 0.6/1 kV - coloured cores				
1123434	3 G 4	12.6	115.2	290
1123435	4 G 4	13.7	153.6	351
1123436	5 G 4	14.9	192.0	416
1123437	3 G 6	13.9	172.8	377
1123438	4 G 6	15.1	230.4	463
1123439	5 G 6	16.8	288.0	559
1123440	4 G 10	18.7	384.0	757
1123441	5 G 10	20.7	480.0	915
1123442	4 G 16	21.3	614.4	1070
1123443	5 G 16	23.6	768.0	1296
1123444	4 G 25	26.2	960.0	1631

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 H refer to page 53
- ÖLFLEX® CLASSIC 130 H refer to page 57

Accessories

- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® CLASSIC 135 CH BK 0,6/1kV

VDE-tested characteristics



Info

- Colour-coded up to 5 cores
Numbered from 6 cores up
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Application range

- Public buildings
- Airport, railway station
- Plant engineering
Industrial machinery
Heating and air-conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards
- For outdoor applications

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-24 respectively IEC 60332-3-25 (Flame spread on vertical cable or wire bundle)
- Halogen-free according to IEC 60754-1 (amount of halogen acid gas)
Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Low smoke density according to IEC 61034
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free
- Halogen-free plastic foil wrapping
- Tinned-copper braiding
- Outer sheath made of special halogen-free compound, black (RAL 9005)

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Based on

HD 21.14 S1
VDE 0281 Part 14



Specific insulation resistance

> 20 GOhm x cm



Conductor stranding

Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius

Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage

U₀/U: 600/1000 V



Test voltage

Core/core: 4000 V
Core/screen: 2000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - coloured cores				
1123460	2 X 1.0	9.4	39.5	120
1123461	3 G 1.0	9.8	51.0	140
1123462	4 G 1.0	10.4	62.8	165
1123463	5 G 1.0	11.2	76.0	191
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - numbered cores				
1123464	7 G 1.0	11.9	97.2	231
1123465	12 G 1.0	15.0	169.1	360
1123466	18 G 1.0	17.3	238.2	494
1123467	25 G 1.0	19.8	315.5	643
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - coloured cores				
1123468	2 X 1.5	10.4	53.2	149
1123469	3 G 1.5	10.9	69.5	177
1123470	4 G 1.5	11.6	86.5	209
1123471	5 G 1.5	12.5	104.3	243
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - numbered cores				
1123472	7 G 1.5	13.4	136.5	300
1123473	12 G 1.5	17.3	238.3	486
1123474	18 G 1.5	20.2	355.4	691
1123475	25 G 1.5	23.1	475.1	914
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - coloured cores				
1123476	2 X 2.5	11.6	79.4	197

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123477	3 G 2.5	12.1	106.1	243
1123478	4 G 2.5	13.0	134.3	293
1123479	5 G 2.5	14.1	158.3	342
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - numbered cores				
1123480	7 G 2.5	15.4	225.0	462
1123481	12 G 2.5	20.1	383.6	718
1123482	18 G 2.5	23.4	548.9	1011
1123483	25 G 2.5	27.4	761.7	1370
ÖLFLEX® CLASSIC 135 CH 0.6/1 kV - coloured cores				
1123484	3 G 4	13.4	167.7	327
1123485	4 G 4	14.7	211.9	399
1123486	5 G 4	15.9	250.3	471
1123487	3 G 6	14.9	232.1	414
1123488	4 G 6	16.1	298.5	519
1123489	5 G 6	17.8	356.1	607
1123490	4 G 10	20.1	490.6	837
1123491	5 G 10	21.9	586.6	995
1123492	4 G 16	22.5	735.1	1157
1123493	5 G 16	25.0	888.7	1407
1123494	4 G 25	27.8	1,126.6	1683

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 CH refer to page 54
- ÖLFLEX® CLASSIC 135 CH refer to page 58

Accessories

- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® PETRO C HFFR

Chemically and mechanically robust cables for harsh environmental conditions - 0.6/1 kV



Info

- Oil and mud-resistant according to IEC 61892-4, Annex D
- Improved characteristics in the event of a fire:
Halogen-free - reduced toxic gases
Flame-retardant - no flame propagation
- UL/cUL approved for North America



Benefits

- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property
- The copper braiding serves as an electromagnetic screen and can also be used as armouring (Braid Armour)
- Can be used in many applications from different industries, as it has remarkable mechanical, thermal and chemical properties

Application range

- Onshore and offshore applications such as drilling rigs and drillships
- For electrical connection of drilling units, pumping stations, compressors, generators, emergency power supplies and emergency lighting in harsh environmental conditions

Product features

- Cable outer sheath material complies with the requirements for drilling fluids as per IEC 61892-4, Annex D
- Halogen-free and highly flame-retardant
- Excellent UV and abrasion-resistance
- Depending on the quantity, customised designs are also possible upon request

Approvals



- Oil-resistant according to NEK TS 606:2009
- Oil and mud-resistant according to IEC 61892-4, Annex D
- Fire behaviour:
 - Halogen-free (VDE 0472-815)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-22 Cat. A)
- UV-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396
- Salt water-resistant according to UL 1309

Design

- Fine-wire, tinned-copper conductor
- Core insulation: polyolefin compound, LSZH
- Cores twisted in layers
- Inner sheath: halogen-free compound
- Tinned copper screen braiding
- Outer sheath made of robust special polymer
Colour: black

Technical data

Core identification code
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers

Approvals
Single-core versions:
USA: UL AWM Style 10587
Canada: cUL AWM II A/B
Multi-core versions:
USA: UL AWM Style 20234
Canada: cUL AWM II A/B

Fire test
Flame-retardant according to IEC 60332-1-2, UL VW-1, Cable Flame Test, CSA FT 1
No flame-propagation according to IEC 60332-3-22 category A

Conductor stranding
Fine wire according to VDE 0295, class 5/ IEC 60228 class 5 from 0.5 mm²

Minimum bending radius
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter

Nominal voltage
IEC: U₀/U 600/1000 V / UL/cUL: 1000 V

Test voltage
4000 V

Temperature range
Occasional flexing: -40 °C to +90 °C
According to UL/AWM: -40 °C to +80 °C
Fixed installation: -50 °C to +90 °C
according to UL/AWM: -50 °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® PETRO C HFFR black - single core				
0023249	1 X 70	19.3	737.0	948
0023250	1 X 95	21.6	1,002.0	1155
0023251	1 X 120	24.5	1,254.0	1463
0023248	1 X 150	26.1	1,553.0	1767
0023233	1 X 185	28.4	1,912.0	2349
0023234	1 X 240	32.6	2,475.0	2869
0023279	1 X 300	34.7	3,075.0	3817
ÖLFLEX® PETRO C HFFR black - multi-core				
0023275	3 G 0.5	10.1	36.0	140
0023274	2 X 1.0	10.5	41.0	149
0023252	2 X 1.5	11.5	57.0	183
0023253	3 G 1.5	12.0	72.0	212
0023254	4 G 1.5	12.8	90.0	249
0023255	5 G 1.5	14.0	115.0	307
0023256	7 G 1.5	15.9	151.0	401
0023239	12 G 1.5	18.8	238.0	573
0023257	18 G 1.5	22.3	350.0	846
0023240	25 G 1.5	26.6	490.0	1183
0023278	3 G 2.5	13.5	105.0	276
0023242	4 G 2.5	14.6	147.0	347
0023244	5 G 2.5	15.7	171.0	401
0023245	7 G 2.5	18.3	233.0	547
0023258	12 G 2.5	22.3	378.0	840

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0023260	4 G 4	16.2	212.0	457
0023266	5 G 4	17.6	250.0	540
0023261	4 G 6	17.7	288.0	558
0023268	5 G 6	19.9	367.0	710
0023280	4 G 10	22.3	474.0	882
0023272	5 G 10	24.3	582.0	1069
0023281	4 G 16	24.9	716.0	1208
0023269	5 G 16	27.6	881.0	1483
0023267	4 G 25	30.2	1,096.0	1785
0023270	5 G 25	33.4	1,371.0	2206
0023262	4 G 35	33.6	1,515.0	2314
0023282	5 G 35	37.1	1,875.0	2847
0023246	4 G 50	39.3	2,140.0	3264
0023271	5 G 50	43.4	2,620.0	4002
ÖLFLEX® PETRO C HFFR blue - multi-core				
0023276	3 G 0.5	10.1	36.0	140
0023273	2 X 1.0	10.5	41.0	147
0023263	2 X 1.5	11.5	57.0	183
0023283	3 G 1.5	12.0	72.0	212
0023237	4 G 1.5	12.8	90.0	249
0023284	5 G 1.5	14.0	115.0	307
0023238	7 G 1.5	15.9	151.0	401
0023264	12 G 1.5	18.8	238.0	573
0023265	25 G 1.5	26.6	490.0	1183

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® ROBUST 200

Proven all-weather connection cables - resistant against a variety of chemical media



Info

- Excellent weather resistance
- High chemical resistance
- Voltage class 450/750 V

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for both indoor and outdoor applications
- Resistant to contact with plant, animal or synthetic-based organic oils, greases, waxes and the related emulsions
- Good resistance to ammonia compounds and bio-gases
- Good resistance to cold and hot water as well as water-soluble cleaning agents
- Well-suited to frequent steam cleaning

Application range

- Machine tool building, medical technology, laundries, car washing equipment, chemical industry, composting plants, sewage works
- Food and beverage industry, especially for production and processing equipment of milk and meat products
- For indoor and outdoor use

Product features

- Halogen-free materials
- Good chemical resistance to ester-based hydraulic fluids
- Ozone, UV and weather-resistant according to EN 50396 and HD 605 S2
- Flexible down to -40°C
- Colour-coded up to 5 cores

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation made of modified PP
- Cores twisted in layers
- Outer sheath made of special TPE
- Sheath colour: black (RAL 9005)

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Based on**
HD 22.10 (VDE 0282 Part 10)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 450/750 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +80 °C
Fixed installation: -50 °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® ROBUST 200				
0021800	2 X 1.0	8.0	19.2	65
0021801	3 G 1.0	8.4	29.0	79
0021802	4 G 1.0	9.2	38.4	96
0021803	5 G 1.0	10.0	48.0	113
0021805	2 X 1.5	8.6	29.0	78
0021806	3 G 1.5	9.1	43.0	97
0021807	4 G 1.5	9.9	58.0	122
0021808	5 G 1.5	10.8	72.0	146
0021809	7 G 1.5	13.5	101.0	208
0021810	2 X 2.5	9.8	48.0	114
0021811	3 G 2.5	10.4	72.0	144
0021812	4 G 2.5	11.5	96.0	181
0021813	5 G 2.5	13.1	120.0	222
0021814	7 G 2.5	15.9	168.0	312
0021816	3 G 4	12.4	115.2	215
0021817	4 G 4	14.0	154.0	273
0021818	5 G 4	15.8	192.0	333
0021822	4 G 6	15.7	230.0	378
0021823	5 G 6	17.2	288.0	463
0021825	4 G 10	19.4	384.0	570
0021826	5 G 10	21.4	480.0	770
0021828	4 G 16	22.4	614.0	885
0021829	5 G 16	24.6	768.0	1100
0021831	4 G 25	27.0	960.0	1365
0021833	4 G 35	29.7	1,344.0	1773
0021836	4 G 50	36.2	1,920.0	3454

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 Single lengths for sizes: ≥ 4G16 max. 600 m; ≥ 4G25 max. 300 m; ≥ 4G50 max. 250 m
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 210 refer to page 63
- ÖLFLEX® ROBUST 215 C refer to page 64

Accessories

- FLEXIMARK® Stainless steel kit refer to page 872
- SKINTOP® MS-M refer to page 662
- SKINTOP® ST-HF-M refer to page 656

ÖLFLEX® ROBUST 210

Proven all-weather control cables – resistant to a wide range of chemical media



Info

- Excellent weather resistance
- High chemical resistance
- Reduced outer diameter

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for both indoor and outdoor applications
- Resistant to contact with plant, animal or synthetic-based organic oils, greases, waxes and the related emulsions
- Good resistance to ammonia compounds and bio-gases
- Good resistance to cold and hot water as well as water-soluble cleaning agents
- Well-suited to frequent steam cleaning

Application range

- Machine tool building, medical technology, laundries, car washing equipment, chemical industry, composting plants, sewage works
- Food and beverage industry, especially for production and processing equipment of milk and meat products
- For indoor and outdoor use

Product features

- Halogen-free materials
- Good chemical resistance to ester-based hydraulic fluids
- Ozone, UV and weather-resistant according to EN 50396 and HD 605 S2
- Flexible down to -40°C
- Number-coded cores

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation made of modified PP
- Cores twisted in layers
- Outer sheath made of special TPE
- Sheath colour: black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281
- 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**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +80 °C
Fixed installation: -50°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® ROBUST 210				
0021880	2 X 0.5	4.9	10.0	27
0021881	3 G 0.5	5.2	15.0	33
0021882	3 X 0.5	5.2	15.0	33
0021883	4 G 0.5	5.8	19.2	41
0021884	4 X 0.5	5.8	19.2	41
0021885	5 G 0.5	6.3	24.0	49
0021886	5 X 0.5	6.3	24.0	49
0021888	7 G 0.5	6.9	33.6	64
0021889	7 X 0.5	6.9	33.6	64
0021890	10 G 0.5	8.8	48.0	92
0021891	12 G 0.5	9.1	58.0	106
0021892	18 G 0.5	10.8	86.4	151
0021893	25 G 0.5	12.7	120.0	210
0021897	2 X 0.75	5.5	14.4	35
0021898	3 G 0.75	5.8	21.6	43
0021899	3 X 0.75	5.8	21.6	43
0021900	4 G 0.75	6.3	28.8	49
0021901	4 X 0.75	6.3	28.8	49
0021902	5 G 0.75	6.9	36.0	66
0021903	5 X 0.75	6.9	36.0	66
0021904	7 G 0.75	7.5	50.0	85
0021905	7 X 0.75	7.5	50.0	85
0021907	12 G 0.75	10.1	86.0	144
0021908	18 G 0.75	12.0	130.0	208
0021909	25 G 0.75	14.1	180.0	288
0021910	34 G 0.75	16.3	245.0	386
0021911	41 G 0.75	17.8	296.0	464
0021912	50 G 0.75	19.6	360.0	560
0021913	2 X 1.0	5.8	19.2	42
0021914	3 G 1.0	6.1	28.8	49
0021915	3 X 1.0	6.1	28.8	49
0021916	4 G 1.0	6.6	38.4	63
0021917	4 X 1.0	6.6	38.4	63
0021918	5 G 1.0	7.3	48.0	78
0021919	5 X 1.0	7.3	48.0	78
0021920	7 G 1.0	8.1	67.0	107
0021921	10 G 1.0	10.4	96.0	154

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0021922	12 G 1.0	10.7	115.0	178
0021923	18 G 1.0	12.9	173.0	262
0021924	25 G 1.0	15.0	240.0	357
0021925	34 G 1.0	17.5	326.0	484
0021926	41 G 1.0	19.2	394.0	582
0021927	50 G 1.0	21.0	480.0	703
0021928	2 X 1.5	6.4	29.0	56
0021929	3 G 1.5	6.8	43.0	72
0021930	3 X 1.5	6.8	43.0	72
0021931	4 G 1.5	7.4	58.0	91
0021932	4 X 1.5	7.4	58.0	91
0021933	5 G 1.5	8.3	72.0	108
0021934	5 X 1.5	8.3	72.0	108
0021936	7 G 1.5	9.0	101.0	149
0021937	7 X 1.5	9.0	101.0	149
0021938	10 G 1.5	11.8	143.0	215
0021940	12 G 1.5	12.2	173.0	234
0021941	18 G 1.5	14.6	259.0	369
0021942	25 G 1.5	17.2	360.0	510
0021943	34 G 1.5	19.8	490.0	683
0021945	50 G 1.5	24.0	720.0	999
0021946	2 X 2.5	7.6	48.0	86
0021947	3 G 2.5	8.3	72.0	115
0021949	4 G 2.5	9.0	96.0	131
0021951	5 G 2.5	10.1	120.0	178
0021953	7 G 2.5	11.2	168.0	241
0021954	12 G 2.5	15.1	288.0	405
0021963	3 G 4	10.1	115.0	180
0021964	4 G 4	11.1	157.0	228
0021965	5 G 4	12.4	192.0	280
0021966	7 G 4	13.6	269.0	377
0021967	4 G 6	13.3	230.0	332
0021968	5 G 6	14.8	288.0	407
0021969	4 G 10	16.5	384.0	541
0021970	5 G 10	18.4	480.0	620
0021971	4 G 16	18.8	614.4	806
0021972	4 G 25	23.5	960.0	1218
0021973	4 G 35	26.4	1,344.0	1658

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 Single lengths for sizes: ≥ 4G16 max. 600 m; ≥ 4G25 max. 300 m; ≥ 4G50 max. 250 m
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 200 refer to page 62
- ÖLFLEX® ROBUST 215 C refer to page 64

Accessories

- FLEXIMARK® Stainless steel kit refer to page 872
- SKINTOP® MS-M refer to page 662
- SKINTOP® ST-HF-M refer to page 656

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® ROBUST 215 C

Proven all-weather control cables – resistant to a wide range of chemical media



Info

- Excellent weather resistance
- High chemical resistance
- EMC compliant copper screening

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for both indoor and outdoor applications
- Resistant to contact with plant, animal or synthetic-based organic oils, greases, waxes and the related emulsions
- Good resistance to ammonia compounds and bio-gases
- Good resistance to cold and hot water as well as water-soluble cleaning agents
- Well-suited to frequent steam cleaning

Application range

- Machine tool building, medical technology, laundries, car washing equipment, chemical industry, composting plants, sewage works
- Food and beverage industry, especially for production and processing equipment of milk and meat products
- For indoor and outdoor use
- In EMC-sensitive environments (electromagnetic compatibility)

Product features

- Halogen-free materials
- Good chemical resistance to ester-based hydraulic fluids
- Ozone, UV and weather-resistant according to EN 50396 and HD 605 S2
- Flexible down to -40°C
- Number-coded cores

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation made of modified PP
- Cores twisted in layers
- Halogen-free plastic foil wrapping
- Tinned copper screen braiding
- Outer sheath made of special TPE
- Sheath colour: black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
Core/core: 4000 V
Core/screen: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +80 °C
Fixed installation: -50 °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® ROBUST 215 C				
0022700	2 X 0.5	5.9	36.0	42
0022701	3 G 0.5	6.2	43.0	52
0022702	3 X 0.5	6.2	43.0	52
0022703	4 G 0.5	6.6	49.0	59
0022704	4 X 0.5	6.6	49.0	59
0022705	5 G 0.5	7.1	57.0	68
0022706	5 X 0.5	7.1	57.0	68
0022708	7 G 0.5	7.7	69.0	85
0022709	7 X 0.5	7.7	69.0	85
0022711	12 G 0.5	10.1	104.0	136
0022712	18 G 0.5	11.8	141.0	189
0022713	25 G 0.5	13.7	211.0	265
0022717	2 X 0.75	6.3	43.0	50
0022718	3 G 0.75	6.6	52.0	60
0022719	3 X 0.75	6.6	52.0	60
0022720	4 G 0.75	7.1	61.0	72
0022721	4 X 0.75	7.1	61.0	72
0022722	5 G 0.75	7.9	72.0	88
0022723	5 X 0.75	7.9	72.0	88
0022724	7 G 0.75	8.5	89.0	110
0022725	7 X 0.75	8.5	89.0	110
0022727	12 G 0.75	11.1	138.0	177
0022728	18 G 0.75	13.0	211.0	247
0022729	25 G 0.75	15.1	280.0	347
0022730	34 G 0.75	17.5	380.0	460
0022733	2 X 1.0	6.6	51.0	60
0022734	3 G 1.0	6.9	62.0	70
0022735	3 X 1.0	6.9	62.0	70
0022736	4 G 1.0	7.4	74.0	85

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0022737	4 X 1.0	7.4	74.0	85
0022738	5 G 1.0	8.3	88.0	103
0022739	5 X 1.0	8.3	88.0	103
0022740	7 G 1.0	8.9	112.0	131
0022742	12 G 1.0	11.7	185.0	213
0022743	18 G 1.0	14.1	268.0	321
0022744	25 G 1.0	16.2	354.0	425
0022748	2 X 1.5	7.2	65.0	71
0022749	3 G 1.5	7.6	82.0	90
0022750	3 X 1.5	7.6	82.0	90
0022751	4 G 1.5	8.4	100.0	114
0022752	4 X 1.5	8.4	100.0	114
0022753	5 G 1.5	9.1	119.0	136
0022754	5 X 1.5	9.1	119.0	136
0022756	7 G 1.5	10.0	154.0	177
0022757	7 X 1.5	10.0	154.0	177
0022760	12 G 1.5	13.4	268.0	290
0022761	18 G 1.5	15.8	373.0	435
0022762	25 G 1.5	18.2	530.0	579
0022763	34 G 1.5	21.2	683.0	797
0022767	3 G 2.5	9.1	118.0	134
0022768	4 G 2.5	10.0	147.0	169
0022769	5 G 2.5	11.1	176.0	207
0022770	7 G 2.5	12.0	253.0	270
0022774	4 G 4	11.9	190.0	258
0022776	4 G 6	14.5	290.0	392
0022777	4 G 10	17.5	458.0	602
0022778	4 G 16	20.2	736.6	928
0022771	4 G 25	25.1	1,126.7	1411
0022780	4 G 35	28.0	1,540.0	1883

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 Single lengths for sizes: ≥ 4G 16 max. 600 m; ≥ 4G25 max. 300 m; ≥ 4G50 max. 250 m
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 135 CH BK 0,6/1kV refer to page 60

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® CLASSIC 400 P

Abrasion-resistant control cables with PUR sheath for increased application requirements



Info

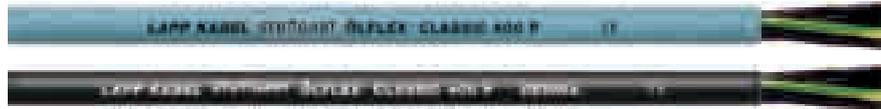
- High mechanical strength
- Good oil resistance

Benefits

- 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
- Also available as DESINA® compliant power cable with black outer sheath colour

Application range

- Machine tools
- Industrial machinery
- Measurement, control and electrical applications
- Outdoor use is possible within the indicated operating temperature range
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress



Product features

- High oil-resistance
- Abrasion and notch-resistant
- Low-adhesive surface
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: special PVC
- Cores twisted in layers
- Special polyurethane outer sheath (PUR)
- Sheath colour: silver grey (RAL 7001)
- DESINA®-compliant: black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
Based on VDE 0281 und 0282
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Flexible use: 12.5 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°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® CLASSIC 400 P - sheath colour: grey				
1312802	2 X 0.5	4.8	10.0	32
1312003	3 G 0.5	5.1	15.0	43
1312803	3 X 0.5	5.1	15.0	43
1312004	4 G 0.5	5.7	19.2	50
1312804	4 X 0.5	5.7	19.2	50
1312005	5 G 0.5	6.2	24.0	59
1312805	5 X 0.5	6.2	24.0	59
1312007	7 G 0.5	6.7	34.0	73
1312807	7 X 0.5	6.7	34.0	73
1312010	10 G 0.5	8.6	48.0	109
1312012	12 G 0.5	8.9	57.6	125
1312018	18 G 0.5	10.5	87.0	180
1312025	25 G 0.5	12.4	120.0	250
1312034	34 G 0.5	14.3	164.0	333
1312041	41 G 0.5	15.7	197.0	400
1312852	2 X 0.75	5.4	14.4	41
1312103	3 G 0.75	5.7	21.6	51
1312853	3 X 0.75	5.7	21.6	51
1312104	4 G 0.75	6.2	28.8	62
1312854	4 X 0.75	6.2	28.8	62
1312105	5 G 0.75	6.7	36.0	74
1312855	5 X 0.75	6.7	36.0	74
1312107	7 G 0.75	7.3	50.0	97
1312857	7 X 0.75	7.3	50.0	97
1312110	10 G 0.75	9.6	72.0	142
1312112	12 G 0.75	9.9	86.4	163
1312118	18 G 0.75	11.7	129.6	234
1312125	25 G 0.75	13.8	180.0	324
1312134	34 G 0.75	15.9	244.8	431
1312141	41 G 0.75	17.4	295.2	529
1312902	2 X 1.0	5.7	19.2	48
1312203	3 G 1.0	6.0	28.8	61
1312903	3 X 1.0	6.0	28.8	61
1312204	4 G 1.0	6.5	38.4	74
1312904	4 X 1.0	6.5	38.4	74
1312205	5 G 1.0	7.1	48.0	89
1312905	5 X 1.0	7.1	48.0	89
1312207	7 G 1.0	8.0	67.0	116
1312210	10 G 1.0	10.2	96.0	171
1312212	12 G 1.0	10.5	115.0	197
1312218	18 G 1.0	12.7	173.0	289

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1312225	25 G 1.0	14.7	240.0	412
1312234	34 G 1.0	17.1	326.4	532
1312241	41 G 1.0	18.8	393.6	638
1312952	2 X 1.5	6.3	29.0	63
1312303	3 G 1.5	6.7	43.0	79
1312953	3 X 1.5	6.7	43.0	79
1312304	4 G 1.5	7.2	58.0	98
1312954	4 X 1.5	7.2	58.0	98
1312305	5 G 1.5	8.1	72.0	121
1312955	5 X 1.5	8.1	72.0	121
1312307	7 G 1.5	8.9	101.0	159
1312957	7 X 1.5	8.9	101.0	159
1312312	12 G 1.5	12.0	173.0	268
1312318	18 G 1.5	13.4	259.5	392
1312325	25 G 1.5	16.9	360.0	531
1312334	34 G 1.5	19.4	489.6	722
1312341	41 G 1.5	21.3	590.4	867
1312403	3 G 2.5	8.1	72.0	132
1312404	4 G 2.5	8.9	96.0	163
1312405	5 G 2.5	10.0	120.0	186
1312407	7 G 2.5	11.1	168.0	267
1312412	12 G 2.5	14.8	288.0	445
1312504	4 G 4	10.8	154.0	237
1312505	5 G 4	12.1	192.0	291
1312507	7 G 4	13.4	269.0	391
1312604	4 G 6	13.0	230.4	327
1312605	5 G 6	14.5	288.0	424
1312607	7 G 6	16.0	403.0	580
1312614	4 G 10	16.2	384.0	567
1312615	5 G 10	18.1	480.0	695
1312617	7 G 10	20.0	672.0	937
1312624	4 G 16	18.8	614.4	1064
ÖLFLEX® CLASSIC 400 P DESINA - sheath colour: black				
1312970	4 G 1.5	7.2	58.0	98
1312981	7 G 1.5	8.8	101.0	159
1312983	11 G 1.5	11.6	158.0	228
1312973	4 G 2.5	8.9	96.0	163
1312974	4 G 4	10.8	154.0	237
1312975	4 G 6	13.0	230.4	350
1312976	4 G 10	16.2	384.0	567
1312978	4 G 25	23.5	960.0	1582

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 DESINA® is a registered trademark of the German Machine Tool Builders' Association
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 440 P refer to page 68
- ÖLFLEX® 491 P refer to page 70

Accessories

- SKINTOP® cable glands plastic metric refer to page 652

ÖLFLEX®
UNITRONIC®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
SILVYN®
FLEXIMARK®
ACCESSORIES
APPENDIX

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® CLASSIC 400 CP

Screened and abrasion-resistant control cables with PUR sheath for increased application requirements



Info

- High mechanical strength
- Good oil resistance
- EMC compliant copper screening

Benefits

- 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
- Copper braiding screens the cable against electromagnetic interference

Application range

- Machine tools
- Industrial machinery
- Measurement, control and electrical applications
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Outdoor use is possible within the indicated operating temperature range

Product features

- High oil-resistance
- Abrasion and notch-resistant
- EMC-compliant
- Low-adhesive surface
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: special PVC
- Cores twisted in layers
- PVC inner sheath, grey
- Tinned-copper braiding
- Special polyurethane outer sheath (PUR)
- Sheath colour: silver grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
Based on VDE 0281 und 0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°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® CLASSIC 400 CP				
1313852	2 X 0.75	7.4	45.0	85
1313103	3 G 0.75	7.9	52.0	99
1313853	3 X 0.75	7.9	52.0	99
1313104	4 G 0.75	8.4	77.0	114
1313854	4 X 0.75	8.4	77.0	114
1313105	5 G 0.75	8.9	84.0	130
1313855	5 X 0.75	8.9	84.0	130
1313107	7 G 0.75	9.7	92.0	161
1313857	7 X 0.75	9.7	92.0	161
1313112	12 G 0.75	12.3	138.0	245
1313118	18 G 0.75	14.5	219.0	354
1313125	25 G 0.75	16.6	277.0	463
1313134	34 G 0.75	18.9	420.0	598
1313141	41 G 0.75	20.6	500.0	725
1313902	2 X 1.0	7.9	50.0	97
1313203	3 G 1.0	8.2	77.0	111
1313903	3 X 1.0	8.2	77.0	111
1313204	4 G 1.0	8.7	87.0	129
1313904	4 X 1.0	8.7	87.0	129
1313205	5 G 1.0	9.5	90.0	152
1313207	7 G 1.0	10.2	110.0	184
1313212	12 G 1.0	13.3	194.0	306
1313218	18 G 1.0	15.5	267.0	417
1313225	25 G 1.0	17.5	379.0	541
1313234	34 G 1.0	20.3	516.0	735

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1313241	41 G 1.0	22.0	610.0	860
1313952	2 X 1.5	8.5	77.0	116
1313303	3 G 1.5	8.9	85.0	135
1313953	3 X 1.5	8.9	85.0	135
1313304	4 G 1.5	9.6	100.0	162
1313954	4 X 1.5	9.6	100.0	162
1313305	5 G 1.5	10.3	120.0	187
1313955	5 X 1.5	10.3	120.0	187
1313307	7 G 1.5	11.3	152.0	236
1313957	7 X 1.5	11.3	152.0	236
1313312	12 G 1.5	14.8	267.0	392
1313318	18 G 1.5	17.2	400.0	536
1313325	25 G 1.5	20.1	572.0	742
1313334	34 G 1.5	21.9	754.0	960
1313341	41 G 1.5	24.7	874.0	1118
1313403	3 G 2.5	10.3	121.0	191
1313404	4 G 2.5	11.3	163.0	232
1313405	5 G 2.5	12.6	199.0	282
1313407	7 G 2.5	13.9	261.0	370
1313412	12 G 2.5	17.2	470.0	580
1313504	4 G 4	13.4	238.0	345
1313505	5 G 4	14.7	279.0	412
1313604	4 G 6	15.8	318.0	483
1313605	5 G 6	17.3	370.0	576
1313614	4 G 10	19.0	558.0	733
1313624	4 G 16	22.2	804.0	1340

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 DESINA® is a registered trademark of the German Machine Tool Builders' Association
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 415 CP refer to page 67
- ÖLFLEX® 440 CP refer to page 69

Accessories

- Conductor end sleeves refer to page 909
- SKINTOP® MS-SC-M refer to page 668

ÖLFLEX® CLASSIC 415 CP

Abrasion-resistant, screened PUR control cables with reduced outer diameters



Info

- Thin and light, without inner sheath
- EMC compliant copper screening



Benefits

- Space- and weight-saving application due to thin cable diameters
- 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
- Copper braiding screens the cable against electromagnetic interference

Application range

- Machine tools
- Industrial machinery
- Measurement, control and electrical applications
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Outdoor use is possible within the indicated operating temperature range

Product features

- High oil-resistance
- Abrasion and notch-resistant
- EMC-compliant
- Low-adhesive surface
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: special PVC
- Cores twisted in layers
- Plastic foil wrapping
- Tinned-copper braiding
- Special polyurethane outer sheath (PUR)
- Sheath colour: silver grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
Core in accordance with VDE 0812/0281
Outer sheath in accordance with VDE 0250/0282
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
Core/core: 4000 V
Core/screen: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 415 CP				
1314000	2 X 0.5	5.8	36.0	45
1314001	3 G 0.5	6.1	43.0	59
1314002	3 X 0.5	6.1	43.0	59
1314003	4 G 0.5	6.5	49.0	83
1314004	4 X 0.5	6.5	49.0	83
1314005	5 G 0.5	7.0	57.0	96
1314006	5 X 0.5	7.0	57.0	96
1314007	7 G 0.5	7.5	69.0	136
1314008	7 X 0.5	7.5	69.0	136
1314010	12 G 0.5	9.9	104.0	200
1314011	12 X 0.5	9.9	104.0	200
1314012	18 G 0.5	11.5	141.0	275
1314013	18 X 0.5	11.5	141.0	275
1314014	25 G 0.5	13.4	211.0	350
1314015	25 X 0.5	13.4	211.0	350
1314017	2 X 0.75	6.2	43.0	56
1314018	3 G 0.75	6.5	52.0	70
1314019	3 X 0.75	6.5	52.0	70
1314020	4 G 0.75	7.0	61.0	95
1314021	4 X 0.75	7.0	61.0	95
1314022	5 G 0.75	7.7	72.0	130
1314023	5 X 0.75	7.7	72.0	130
1314024	7 G 0.75	8.3	89.0	168
1314025	7 X 0.75	8.3	89.0	168
1314026	12 G 0.75	10.9	138.0	232
1314027	18 G 0.75	12.7	211.0	315
1314028	25 G 0.75	14.8	280.0	435
1314029	25 X 0.75	14.8	280.0	435
1314032	2 X 1.0	6.5	51.0	84
1314033	3 G 1.0	6.8	62.0	110
1314034	3 X 1.0	6.8	62.0	110
1314035	4 G 1.0	7.3	74.0	130
1314036	4 X 1.0	7.3	74.0	130
1314037	5 G 1.0	8.1	88.0	156

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1314038	5 X 1.0	8.1	88.0	156
1314039	7 G 1.0	8.8	112.0	192
1314040	7 X 1.0	8.8	112.0	192
1314041	12 G 1.0	11.5	185.0	285
1314042	18 G 1.0	13.9	268.0	395
1314043	25 G 1.0	15.9	354.0	656
1314046	2 X 1.5	7.1	65.0	97
1314047	3 G 1.5	7.5	82.0	125
1314048	3 X 1.5	7.5	82.0	125
1314049	4 G 1.5	8.2	100.0	165
1314050	4 X 1.5	8.2	100.0	165
1314051	5 G 1.5	8.9	119.0	193
1314052	5 X 1.5	8.9	119.0	193
1314053	7 G 1.5	9.9	154.0	245
1314054	7 X 1.5	9.9	154.0	245
1314055	12 G 1.5	13.0	268.0	365
1314056	18 G 1.5	15.6	373.0	553
1314057	25 G 1.5	17.9	530.0	734
1314058	34 G 1.5	20.8	683.0	944
1314061	3 G 2.5	8.9	118.0	188
1314062	4 G 2.5	9.9	147.0	236
1314063	5 G 2.5	11.0	176.0	270
1314064	7 G 2.5	11.9	253.0	340
1314065	12 G 2.5	16.0	355.0	589
1314066	18 G 2.5	19.0	569.0	978
1314067	25 G 2.5	22.2	827.0	1358
1314068	4 G 4	11.6	248.0	305
1314070	7 G 4	14.4	355.0	500
1314071	4 G 6	14.2	343.0	440
1314073	7 G 6	17.0	505.0	672
1314074	4 G 10	17.2	535.0	710
1314075	4 G 16	20.2	800.0	1050
1314076	4 G 25	25.1	1,075.0	1570
1314077	4 G 35	28.0	1,576.0	2070

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 215 C refer to page 64
- ÖLFLEX® CLASSIC 400 CP refer to page 66

Accessories

- Conductor end sleeves refer to page 909
- SKINTOP® MS-SC-M refer to page 668

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® 440 P

Abrasion-resistant PUR control cables, flexible at cold temperatures – halogen-free and flame-retardant



Info

- Suitable for all weather conditions
- Flexible at low temperatures
- VDE-tested and registered

Benefits

- 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
- Wide temperature range for applications in harsh climatic environments
- Halogen-free insulating material means low corrosive smoke emissions are produced in the event of a fire
- VDE-tested characteristics

Application range

- Construction machinery
- Machine tools
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Industrial machinery
- For indoor and outdoor use

Product features

- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- Abrasion and notch-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Resistant to hydrolysis and microbes
- Flexible down to -40°C

Approvals



Design

- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- Cores twisted in layers
- Special polyurethane outer sheath (PUR)
- Sheath colour: silver grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 12.5 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50°C to +90°C
- VDE-tested**
VDE reg. no. 6582
4 - 6 mm²: based on VDE 0281/0282

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 440 P				
0012800	2 X 0.5	5.9	10.0	39
0012801	3 G 0.5	6.2	14.0	46
0012802	4 G 0.5	6.9	19.0	53
0012803	5 G 0.5	7.4	24.0	65
0012804	7 G 0.5	9.1	34.0	92
0012805	12 G 0.5	11.3	58.0	149
0012806	18 G 0.5	13.2	86.0	207
0012807	25 G 0.5	15.0	120.0	274
0012813	2 X 0.75	6.4	14.0	48
0012814	3 G 0.75	6.8	22.0	53
0012815	4 G 0.75	7.4	29.0	67
0012816	5 G 0.75	8.6	36.0	81
0012817	7 G 0.75	10.0	50.0	119
0012818	12 G 0.75	12.4	86.0	193
0012819	18 G 0.75	14.4	130.0	269
0012820	25 G 0.75	17.2	180.0	378
0012825	2 X 1.0	6.8	19.0	57
0012826	3 G 1.0	7.2	29.0	61
0012827	4 G 1.0	8.2	38.0	82

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0012828	5 G 1.0	9.0	48.0	107
0012829	7 G 1.0	11.1	67.0	138
0012830	12 G 1.0	13.2	115.0	215
0012831	18 G 1.0	15.4	173.0	328
0012832	25 G 1.0	19.0	240.0	479
0012833	34 G 1.0	21.8	326.0	616
0012834	41 G 1.0	23.4	394.0	727
0012837	2 X 1.5	7.4	29.0	73
0012838	3 G 1.5	8.3	43.0	96
0012839	4 G 1.5	9.0	58.0	105
0012840	5 G 1.5	9.8	72.0	133
0012841	7 G 1.5	12.2	101.0	175
0012842	12 G 1.5	14.5	173.0	309
0012843	18 G 1.5	17.6	259.0	458
0012844	25 G 1.5	20.7	360.0	635
0012846	41 G 1.5	26.3	590.0	1003
0012850	3 G 2.5	9.7	72.0	142
0012851	4 G 2.5	11.0	96.0	184
0012852	5 G 2.5	12.1	120.0	220
0012853	7 G 2.5	14.2	168.0	294
0012854	12 G 2.5	17.8	288.0	489

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 210 refer to page 63
- ÖLFLEX® CLASSIC 400 P refer to page 65
- ÖLFLEX® 491 P refer to page 70

Accessories

- Conductor end sleeves refer to page 909
- SKINTOP® ST-M refer to page 652

ÖLFLEX® 440 CP

Abrasion-resistant PUR control cables, flexible at cold temperatures – screened, halogen-free and flame-retardant



Info

- Suitable for all weather conditions
- VDE-tested and registered
- EMC compliant copper screening



Benefits

- 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
- Wide temperature range for applications in harsh climatic environments
- Halogen-free insulating material means low corrosive smoke emissions are produced in the event of a fire
- Copper braiding screens the cable against electromagnetic interference

Application range

- Construction machinery
- Machine tools
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Industrial machinery
- For indoor and outdoor use

Product features

- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- Abrasion and notch-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Resistant to hydrolysis and microbes
- Flexible at low temperatures

Approvals



Design

- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- Cores twisted in layers
- Inner sheath made of TPE
- Tinned-copper braiding
- Special polyurethane outer sheath (PUR)
- Sheath colour: silver grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Specific insulation resistance**
> 20 GOhm x cm
- 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 cable diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50°C to +90°C
- VDE-tested**
VDE reg. no. 6582
4 - 6 mm²: based on VDE 0281/0282

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 440 CP				
0012901	3 G 0.5	8.3	44.0	100
0012902	4 G 0.5	8.8	52.0	120
0012903	5 G 0.5	9.7	61.0	139
0012904	7 G 0.5	11.2	75.0	175
0012906	12 G 0.5	13.7	131.0	276
0012907	18 G 0.5	15.7	168.0	376
0012908	25 G 0.5	18.5	212.0	485
0012911	2 X 0.75	8.4	45.0	104
0012912	3 G 0.75	8.7	52.0	119
0012913	4 G 0.75	9.5	67.0	126
0012914	5 G 0.75	10.2	75.0	165
0012915	7 G 0.75	11.9	96.0	210
0012917	12 G 0.75	14.5	160.0	331
0012919	25 G 0.75	20.3	283.0	596
0012925	2 X 1.0	8.7	49.0	117
0012926	3 G 1.0	9.3	60.0	132
0012927	4 G 1.0	9.9	78.0	163
0012928	5 G 1.0	10.8	88.0	187

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0012929	7 G 1.0	12.8	115.0	255
0012931	12 G 1.0	15.4	201.0	419
0012932	18 G 1.0	17.7	267.0	546
0012933	25 G 1.0	21.5	351.0	738
0012934	34 G 1.0	23.8	498.0	972
0012940	2 X 1.5	9.5	68.0	122
0012941	3 G 1.5	9.9	83.0	140
0012942	4 G 1.5	10.8	102.0	170
0012943	5 G 1.5	11.6	119.0	200
0012944	7 G 1.5	14.2	186.0	290
0012945	12 G 1.5	16.8	264.0	423
0012946	18 G 1.5	20.0	379.0	616
0012947	25 G 1.5	23.5	534.0	804
0012949	41 G 1.5	28.9	803.0	1360
0012950	3 G 2.5	11.4	121.0	194
0012951	4 G 2.5	12.6	145.0	307
0012952	5 G 2.5	14.0	205.0	413
0012953	7 G 2.5	16.4	259.0	533
0012954	12 G 2.5	21.0	407.0	795

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 400 CP refer to page 66

Accessories

- Conductor end sleeves refer to page 909
- SKINTOP® MS-SC-M refer to page 668

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® 491 P

Abrasion-resistant PUR control cables – approved for North America



Info

- For the North American market
- High mechanical strength
- Good oil resistance

Benefits

- Certified for the USA and Canada for export-oriented appliance and apparatus manufacturers
- 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
- Metric flexible conductor design
- Also available as DESINA® compliant power cable with black outer sheath colour

Application range

- Appliance and apparatus construction
- Plant engineering
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Outdoor use is possible within the indicated operating temperature range

Product features

- High oil-resistance
- Abrasion and notch-resistant
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- Resistant to hydrolysis and microbes

Approvals



- USA: acc. to NFPA79 Ed 07 in industrial machinery as part of a listed assembly only
- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Core insulation: special PVC
- Cores twisted in layers
- Special polyurethane outer sheath (PUR)
- Sheath colour: silver grey (RAL 7001)
- DESINA®-compliant: black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
In accordance with UL-AWM Style 20234 cUL AWM II A/B FT1
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
HAR U₀/U: 300/500 V
UL/CSA: 600 V
- Test voltage**
Test voltage: 4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -5°C to 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® 491 P - sheath colour: black				
0013009	3 G 1.0	7.7	27.0	73
0013017	3 G 1.5	8.3	44.0	100
0013018	4 G 1.5	9.0	58.0	123
0013019	5 G 1.5	9.8	72.0	150
0013020	7 G 1.5	10.7	101.0	197
0013021	12 G 1.5	13.8	173.4	344
0013023	25 G 1.5	20.0	360.0	682
0013024	3 G 2.5	9.2	72.0	152
0013025	4 G 2.5	9.9	96.0	200
ÖLFLEX® 491 P - sheath colour: grey				
0013208	2 X 1.0	7.3	19.2	62
0013210	4 G 1.0	8.2	35.0	89
0013212	7 G 1.0	9.7	61.0	138
0013213	12 G 1.0	12.5	105.0	232
0013214	18 G 1.0	14.8	157.0	340
0013215	25 G 1.0	17.8	218.0	454
0013223	3 G 1.5	8.3	44.0	100
0013220	4 G 1.5	9.0	57.6	123
0013222	7 G 1.5	10.7	101.0	197
0013225	12 G 1.5	13.8	173.0	344
0013226	18 G 1.5	16.6	260.0	488
0013227	25 G 1.5	20.0	360.0	682

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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).
DESINA® is a registered trademark of the German Machine Tool Builders' Association
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 400 P refer to page 65

Accessories

- Cable Marking Systems refer to page 854
- SKINTOP® ST-M refer to page 652

ÖLFLEX® CONTROL M

Control cables with increased oil resistance - multiple UL and CSA listed



Info

- Complies with NFPA 79 Edition 2012
- Please note: discontinued product! <Reduced range of sizes>
- For a future alternative product see ÖLFLEX® CONTROL TM

Benefits

- Wide application range due to multiple approvals
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

- Industrial machinery; plant engineering
- Machine tools compliant with UL MTW (Machine Tool Wiring)
- Suitable for wet areas within machineries and production lines due to higher resistance to oil and moisture
- TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)
- Wind turbines: USA Wind Turbine Tray Cable (WTTCC)

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- High oil-resistance, according to UL OIL RES I and UL OIL RES II
- Water-resistant, UL Wet Approval 75 °C

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T 16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Cores twisted in layers
- Outer sheath made of special PVC compound, grey (RAL 7001)

Technical data

- Core identification code**
Black cores with white numbers
- Approvals**
UL MTW, TC-ER, WTTCC 1000 V, BUS DROP c(UL) Type TC and CIC FT4
CSA AWM I/II A/B FT4
NOM (Normas Oficiales Mexicanas)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
5 x outer diameter
- Nominal voltage**
UL/CSA: 600 V (TC, MTW, CIC), WTTCC 1000V
UL/CSA: 1000 V (AWM)
HAR U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -10°C to +90°C (according to AWM +105°C)
Fixed installation: -40°C to +90°C (according to AWM +105°C)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL M				
431803	3 G 1.0	7.6	28.8	85
431804	4 G 1.0	8.1	38.4	98
431805	5 G 1.0	8.8	48.0	115
431807	7 G 1.0	9.5	67.0	149
431812	12 G 1.0	12.1	115.0	255
431818	18 G 1.0	14.9	173.0	365
431825	25 G 1.0	16.9	240.0	479
431603	3 G 1.5	8.3	43.0	103
431604	4 G 1.5	8.9	58.0	124
431605	5 G 1.5	9.7	72.0	146
431607	7 G 1.5	10.5	101.0	189
431612	12 G 1.5	14.3	173.0	328

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
431618	18 G 1.5	16.6	259.0	431
431625	25 G 1.5	18.8	360.0	592
431403	3 G 2.5	8.8	72.0	130
431404	4 G 2.5	9.6	96.0	159
431405	5 G 2.5	10.8	120.0	191
431407	7 G 2.5	11.8	168.0	252
431204	4 G 4	11.7	153.0	226
431205	5 G 4	12.8	192.0	279
431207	7 G 4	14.8	269.0	384
431004	4 G 6	15.0	231.0	394
431005	5 G 6	16.3	288.0	472
430804	4 G 10	18.4	384.0	615
430604	4 G 16	22.8	615.0	864

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CONTROL TM refer to page 47
- ÖLFLEX® CONTROL TM CY refer to page 48
- ÖLFLEX® TRAY II refer to page 49
- ÖLFLEX® TRAY II CY refer to page 50

Accessories

- SKINTOP® MS-M refer to page 662
- SKINTOP® ST-M refer to page 652

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® FORTIS

Robust, cold temperature and highly oil resistant control cables - multiple UL and CSA listed



Info

- Complies with NFPA 79 Edition 2012
- Increased oil resistance and flexibility at cold temperatures

Benefits

- Wide application range due to multiple approvals
- Cost-saving, easy installation due to omission of closed raceways (suitable for open wiring)
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Wide temperature range for applications in harsh climatic environments
- The high flexibility and good dismantling and stripping properties enable easy space-saving cable installation and fast processing

Application range

- Industrial machinery; plant engineering
- Machine tools compliant with UL MTW (Machine Tool Wiring)
- Suitable for wet areas within machineries and production lines due to higher resistance to oil and moisture
- TC-ER (Tray Cable Exposed Run) approval for open wiring between cable tray and industrial machines/plants acc. to NEC 336.10(7)
- Meets WTTTC (UL2277) requirements

Product features

- Torsion-resistant up to $\pm 150^\circ / m$
- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- High oil-resistance, according to UL OIL RES I and UL OIL RES II
- Water-resistant, UL Wet Approval 75 °C
- Flexible down to -40°C

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Cores twisted in layers
- Outer sheath made of robust special polymer
Colour: black

Technical data



Core identification code
Black cores with white numbers



Approvals
UL-listed according to:
Type TC-ER (Exposed Run)
Type MTW or UL AWM, NFPA 79 2007
CSA-listed according to:
c(UL) Type TC and CIC FT-4 -40°C
CSA AWM I/II A/B FT-4 -40°C



Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius
5 x outer diameter



Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTTC 1000V
HAR U₀/U: 300/500 V



Test voltage
2000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Occasional flexing: -40°C to +90°C (according to AWM +105°C)
Fixed installation: -55°C to +90°C (according to AWM +105°C)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FORTIS				
331803	3 G 1.0	7.5	28.8	85
331804	4 G 1.0	8.1	38.4	98
331805	5 G 1.0	8.8	48.0	115
331807	7 G 1.0	9.5	67.0	149
331812	12 G 1.0	12.1	115.0	255
331818	18 G 1.0	14.9	173.0	365
331603	3 G 1.5	8.3	43.0	103
331604	4 G 1.5	8.9	58.0	124
331605	5 G 1.5	9.7	72.0	146
331607	7 G 1.5	10.5	101.0	189
331612	12 G 1.5	14.4	173.0	328
331618	18 G 1.5	16.6	259.0	431
331625	25 G 1.5	18.8	360.0	592

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
331403	3 G 2.5	9.2	72.0	130
331404	4 G 2.5	10.0	96.0	159
331405	5 G 2.5	10.8	120.0	191
331407	7 G 2.5	11.8	168.0	252
331412	12 G 2.5	16.2	288.0	459
331204	4 G 4	11.7	153.0	226
331205	5 G 4	12.8	192.0	279
331004	4 G 6	14.7	231.0	394
331005	5 G 6	16.0	288.0	472
330804	4 G 10	17.9	384.0	615
330805	5 G 10	19.6	480.0	771
330604	4 G 16	22.8	615.0	864
330605	5 G 16	24.9	768.0	1080

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 \leq 30 kg or \leq 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CONTROL TM refer to page 47
- ÖLFLEX® CONTROL TM CY refer to page 48

Accessories

- SKINTOP® ST-M refer to page 652
- SKINTOP® MS-M refer to page 662
- SKINTOP® COLD refer to page 664

ÖLFLEX® 450 P

Abrasion-resistant cable for handheld equipment with PVC/PUR sheath and integrated wear indicator



Info

- Cost-effective PVC/PUR dual sheath
- Integrated wear indicator



Benefits

- Good cost-benefit ratio
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- The signal colour of the outer sheath increases safety and visual perception
- Serious mechanical damages of the yellow outer jacket become visible due to the red inner sheath

Application range

- Power or extension cord
- Electrical devices
- Portable handheld electrical devices such as drills, sanders, jig saws or grinders
- Portable devices for the home and garden
- Outdoor use is possible within the indicated operating temperature range

Product features

- Good oil resistance
- Abrasion and notch-resistant
- Flame-retardant according to IEC 60332.1.2
- Low-adhesive surface
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Cores twisted together
- Inner sheath: PVC - colour: signal red
- Outer sheath: PUR - colour: signal yellow

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Based on**
VDE 0250/0281
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -5°C to +70°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® 450 P				
0012101	2 X 1.0	8.0	19.2	82
0012102	3 G 1.0	8.4	29.0	89
0012202	3 G 1.5	9.3	43.0	120
00122033	4 G 1.5	10.1	58.0	160
00122043	5 G 1.5	10.9	72.0	179
0012302	3 G 2.5	10.8	72.0	186
00123043	5 G 2.5	13.6	120.0	283

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 540 P refer to page 75
- ÖLFLEX® 550 P refer to page 77

Accessories

- SKINTOP® BS-M refer to page 657
- SKINTOP® ST-M refer to page 652

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® 500 P

Extra-flexible, abrasion and cold-resistant workshop cable with PUR core insulation and outer sheath



Info

- High mechanical strength
- Good oil resistance
- Extra flexible conductor design

Benefits

- Increased durability under harsh conditions thanks to robust PUR core and outer sheath material
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Wide temperature range for applications in harsh climatic environments
- High flexibility simplifies installation when space is at a premium and use with electrical handheld devices
- The signal colour of the outer sheath increases safety and visual perception

Application range

- Connection and extension cables
- Portable handheld electrical devices such as drills, sanders, jig saws or grinders
- Portable devices for the home and garden

Product features

- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- Abrasion and notch-resistant
- Flexible down to -40°C
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Resistant to hydrolysis and microbes

Approvals



Design

- Extra-fine wire strand made of bare copper
- Core insulation: PUR
- Cores twisted together
- PUR outer sheath
- Sheath colour: orange (RAL 2003)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Based on**
VDE 0281/0282
- Specific insulation resistance**
> 150 MOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6
- Minimum bending radius**
Occasional flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +80 °C
Fixed installation: -50°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® 500 P				
0012345	2 X 1.0	7.2	19.5	64
0012346	3 G 1.0	7.6	29.0	77
00123473	4 G 1.0	8.5	38.4	96
00123483	5 G 1.0	9.2	48.0	120
0012351	2 X 1.5	8.0	29.0	81
0012352	3 G 1.5	8.7	43.0	105.3
00123543	4 G 1.5	9.6	58.0	135
00123533	5 G 1.5	10.8	72.0	158.9
0012365	3 G 2.5	10.9	72.0	173.2
00123553	4 G 2.5	11.9	96.0	204
00123663	5 G 2.5	13.2	120.0	254

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 540 P refer to page 75
- ÖLFLEX® 550 P refer to page 77

Accessories

- Cable Marking Systems refer to page 854
- Conductor end sleeves refer to page 909
- SKINTOP® CLICK refer to page 654
- SKINTOP® ST-M refer to page 652

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ACCESSORIES
APPENDIX

ÖLFLEX® 540 P

VDE-registered, cold-flexible TPE/PUR connection cables for particularly harsh conditions



Info

- The proven building site cable
- Voltage class from 1.5 mm² 450/750 V
- VDE-tested and registered



Benefits

- 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
- Wide temperature range for applications in harsh climatic environments
- The signal colour of the outer sheath increases safety and visual perception
- VDE-tested characteristics

Application range

- Construction machinery
- Building sites, camp sites, stage applications
- Agricultural equipment
- Industrial machinery
- For indoor and outdoor use

Product features

- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- Abrasion and notch-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Flexible down to -40°C
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- Cores twisted together
- Outer sheath: PUR – colour: signal yellow
- Other sheath colours are available upon request

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9 (7-cored version number-coded)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
Up to 1.0mm² 300/500 V
From 1.5 mm² 450/750 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50°C to +90°C
- VDE-tested**
Up to 1.0 mm²: VDE reg. no. 6583
From 1.5 mm²: VDE reg. no. 6584

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 540 P U₀/U: 300/500 V				
0012452	2 X 0.75	6.6	14.4	52
0012453	3 G 0.75	7.0	21.6	63
00124543	4 G 0.75	7.6	28.8	80
00124553	5 G 0.75	8.5	36.0	98
0012456	7 G 0.75	10.2	51.0	126
0012457	2 X 1.0	7.0	19.2	53
0012458	3 G 1.0	7.4	29.0	72
00124593	4 G 1.0	8.2	38.4	96
00124603	5 G 1.0	9.0	48.0	117
0012461	7 G 1.0	10.9	68.0	147
ÖLFLEX® 540 P U₀/U: 450/750 V				
0012462	2 X 1.5	8.4	29.0	82
0012463	3 G 1.5	8.9	43.0	108
00124643	4 G 1.5	9.9	58.0	147
00124653	5 G 1.5	10.9	72.0	164
0012466	7 G 1.5	13.5	101.0	267
0012467	2 X 2.5	10.0	48.0	142
0012468	3 G 2.5	10.6	72.0	161
00124693	4 G 2.5	11.8	96.0	220
00124703	5 G 2.5	13.4	120.0	245
0012471	7 G 2.5	15.8	168.0	321
0012474	3 G 4	13.0	115.2	262
00124753	4 G 4	14.2	154.0	284
00124763	5 G 4	16.0	192.0	355
00124783	4 G 6	16.1	230.0	440
00124793	5 G 6	17.6	288.0	530
00124813	4 G 10	19.9	384.0	615
00124823	5 G 10	22.2	480.0	735

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 200 refer to page 62
- ÖLFLEX® 550 P refer to page 77

Accessories

- SKINTOP® ST-M refer to page 652
- SKINTOP® BS-M refer to page 657
- SKINTOP® MS-M refer to page 662

Harsh conditions

High mechanical and chemical resistance

ÖLFLEX® 540 CP

VDE-registered, screened and cold-flexible TPE/PUR connection cables for particularly harsh conditions



Info

- The proven building site cable
- Voltage class from 1.5 mm² 450/750 V
- VDE-tested and registered

Benefits

- 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
- Wide temperature range for applications in harsh climatic environments
- The signal colour of the outer sheath increases safety and visual perception
- Copper braiding screens the cable against electromagnetic interference

Application range

- Construction machinery
- Building sites, camp sites, stage applications
- Agricultural equipment
- Industrial machinery
- For indoor and outdoor use

Product features

- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- Abrasion and notch-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Flexible down to -40°C
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- Cores twisted together
- Inner sheath made of TPE
- Tinned copper screen braiding
- Outer sheath: PUR – colour: signal yellow

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9 (7-cored version number-coded)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Occasional flexing: 12.5 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
Up to 1.0mm² 300/500 V
From 1.5 mm² 450/750 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50 °C to +90 °C
- VDE-tested**
Up to 1.0 mm²: VDE reg. no. 6583
From 1.5 mm²: VDE reg. no. 6584

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 540 CP U₀/U: 300/500 V				
0012752	2 X 0.75	8.6	43.9	103
0012753	3 G 0.75	9.6	67.6	140
00127553	5 G 0.75	10.7	75.0	164
0012757	2 X 1.0	9.6	65.2	138
0012758	3 G 1.0	10.0	74.9	153
00127603	5 G 1.0	11.2	87.2	184
0012761	7 G 1.0	13.9	138.5	281
ÖLFLEX® 540 CP U₀/U: 450/750 V				
0012762	2 X 1.5	10.6	67.7	159
0012763	3 G 1.5	11.1	82.3	181
00127643	4 G 1.5	12.1	101.8	218
00127653	5 G 1.5	13.7	143.3	287
0012766	7 G 1.5	16.7	195.7	394
0012767	2 X 2.5	12.2	92.4	213
0012768	3 G 2.5	13.4	119.0	263
00127693	4 G 2.5	14.6	168.2	334
00127703	5 G 2.5	16.6	204.7	416
00127753	4 G 4	17.4	240.1	476
00127783	4 G 6	19.2	355.5	634
00127793	5 G 6	20.9	452.9	770
00127813	4 G 10	23.6	577.8	993
00127823	5 G 10	25.5	681.2	1151

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 440 CP refer to page 69

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINDICHT® SM-PE-M refer to page 694

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ACCESSORIES
APPENDIX

ÖLFLEX® 550 P

PUR power cords with European harmonisation (HAR)



Info

- High mechanical strength
- Good oil resistance
- H05BQ-F/H07BQ-F design standard



Benefits

- Europe-wide use due to harmonisation
- 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
- Wide temperature range for applications in harsh climatic environments
- The signal colour of the outer sheath increases safety and visual perception

Application range

- Construction machinery
- Building sites, camp sites, stage applications
- Agricultural equipment
- Portable handheld electrical devices such as drills, Sanders, jig saws or grinders
- For indoor and outdoor use

Product features

- Oil-resistant
- Abrasion and notch-resistant
- Flexible down to -40°C
- Resistant to hydrolysis and microbes

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: rubber compound
- Cores twisted together
- PUR outer sheath
- Sheath colour: orange (RAL 2003)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Approvals**
H05BQ-F;H07BQ-F / HD22.10
VDE 0282 Part 10/HD 22.10
- Specific insulation resistance**
> 10 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
For flexible use:
12.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
Up to 1.0mm² 300/500 V
From 1.5 mm² 450/750 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 550 P U₀/U: 300/500 V				
0013600	2 X 0.75	6.4	14.4	50
0013601	3 G 0.75	7.0	21.6	64
00136023	4 G 0.75	7.6	28.8	78
00136033	5 G 0.75	8.5	36.0	98
0013610	2 X 1.0	7.0	19.2	60
0013611	3 G 1.0	7.4	29.0	74
00136123	4 G 1.0	8.1	38.4	92
00136133	5 G 1.0	9.0	48.0	114
ÖLFLEX® 550 P U₀/U: 450/750 V				
0013620	2 X 1.5	8.4	29.0	87
0013621	3 G 1.5	8.9	43.0	108
00136223	4 G 1.5	9.9	58.0	137
00136233	5 G 1.5	10.8	72.0	165
0013630	2 X 2.5	10.0	48.0	90
0013631	3 G 2.5	10.6	72.0	161
00136323	4 G 2.5	11.8	96.0	206
00136333	5 G 2.5	13.1	120.0	254

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 200 refer to page 62
- H05RN-F refer to page 79
- H07RN-F refer to page 80
- ÖLFLEX® 500 P refer to page 74
- ÖLFLEX® 540 P refer to page 75

Accessories

- Cutting tools for various applications refer to page 902
- Stripping tools refer to page 905
- SKINTOP® MS-M refer to page 662
- SKINTOP® ST-M refer to page 652

Harsh conditions

Rubber cables

H05RR-F

Rubber cable for light mechanical stress and handheld devices used in households, kitchens, offices



Info

- Harmonised (HAR)
- International use
- Ozone-resistant

Benefits

- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- Handheld and power supply devices according to HD 516/VDE 0298-300
- For lightweight workshop tools that are subject to light loads
- According to HD 516/VDE 0298-300: dry and damp rooms; only temporary use outdoors; not for industrial/commercial or agricultural facilities, except tailors/cutting workshops; not suitable for supplying industrial power tools
- Light & sound technology

Product features

- Ozone-resistant
- No flame retardancy according to IEC 60332-1-2

Approvals



Design

- Bare copper wire according to HAR
- Core insulation: rubber compound type EI 4
- Outer sheath: rubber compound, type EM3

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Approvals

VDE 0282 Part 4/HD 22.4



Specific insulation resistance

1 GOhm x cm



Conductor stranding

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



Minimum bending radius

Flexible use: 6 x outer diameter



Nominal voltage

U₀/U: 300/500 V



Test voltage

2000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Current rating

According to VDE 0298 part 4 Tab. 11 and 13 HD 516/VDE 0298-300



Temperature range

Flexible use: -25°C to +60°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600203	2 X 0.75	5.7 - 7.4	14.4	61
1600207	3 G 0.75	6.2 - 8.1	21.6	75
1600204	2 X 1.0	6.1 - 8.0	19.0	73
1600208	3 G 1.0	6.5 - 8.5	29.0	86
16002113	4 G 1.0	7.1 - 9.3	38.0	105
1600205	2 X 1.5	7.6 - 9.8	29.0	115
1600200	3 G 1.5	8.0 - 10.4	43.0	135
16002013	4 G 1.5	9.0 - 11.6	58.0	165
16002023	5 G 1.5	9.8 - 12.7	72.0	190
1600206	2 X 2.5	9.0 - 11.6	48.0	160
1600209	3 G 2.5	9.6 - 12.4	72.0	190
16002123	4 G 2.5	10.7 - 13.8	96.0	235
16002133	5 G 2.5	11.9 - 15.3	120.0	285

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

H05RN-F

Rubber cable for handheld devices and chains of decorative lights



Info

- Harmonised (HAR)
- International use

Benefits

- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- According to HD 516/VDE 0298-300: for supplying devices in households, kitchens or offices under light mechanical stress; handheld inspection lamps
- According to HD 516/VDE 0298-300: provided the maximum conductor temperature of +60 °C, the maximum outer sheath surface temperature of +50 °C and the lack of ozone resistance are taken into account, suitable for permanent use outdoors with conventional mechanical stress

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1

Approvals



Design

- Bare copper wire according to HAR
- Core insulation: rubber compound type EI 4
- Outer sheath: rubber compound, type EM2

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Approvals**
VDE 0282 Part 4/HD 22.4
- Specific insulation resistance**
1 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Flexible use: 6 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Current rating**
According to VDE 0298 part 4 Tab. 11 and 13 HD 516/VDE 0298-300
- Temperature range**
Flexible use: -25 °C to +60 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600250	2 X 0.75	5.7 - 7.4	14.4	80
1600252	3 G 0.75	6.2 - 8.1	21.6	95
16002583	4 G 0.75	6.8 - 8.8	30.0	105
1600251	2 X 1.0	6.1 - 8.0	19.0	95
1600253	3 G 1.0	6.5 - 8.5	29.0	115

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H07ZZ-F refer to page 81

Harsh conditions

Rubber cables

H07RN-F

Heavy standard construction



Benefits

- Heavy-duty, rubber-sheathed cable
- High stresses
- Permitted up to 1000 V (0.6/1 kV) alternating voltage for protected and fixed installation
- Arrangements made of single-core, rubber-sheathed cables H07RN-F can be used for short circuit-proof and short-to-ground-proof installations in accordance with VDE 0100 Part 520
- Type-compliant versions <HAR>-certified with "<HAR>" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- Handheld and power supply devices according to HD 516/VDE 0298-300
- According to HD 516/VDE 0298-300:... tools, machinery and agricultural devices for medium mechanical stress; for mobile engines and machinery; on plaster; not for submersion except for exceptional, brief flooding (see H07RN8-F cable for submersible pumps); areas with an explosion hazard, in addition to individual, national provisions/guidelines/legislation/standards/norms that may apply in specific cases;
- Dry or damp rooms as well as outdoors (taking into account all normative power characteristics) according to HD 516/VDE 0298-300
- Light & sound technology

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1
- Normatively not ozone-resistant according to HD 22.4/VDE 0282-4 and HD 22.1/VDE 0282-1

Approvals



Design

- Bare copper wire according to HAR
- Core insulation: rubber compound type EI 4
- Outer sheath: rubber compound, type EM2



Info

- Harmonised (HAR)
- International use

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Approvals

VDE 0282 Part 4/HD 22.4



Specific insulation resistance

1 GOhm x cm



Conductor stranding

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



Minimum bending radius

According to HD 516/VDE 0298-300, table 6(c): 3 x up to 8 x cable outer diameter, depending on the outer diameter and application involved



Nominal voltage

U₀/U: 450/750 V



Test voltage

2500 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Current rating

According to VDE 0298 part 4 Tab. 11 and 13 HD 516/VDE 0298-300



Temperature range

According to HD 516/VDE 0298-300:... Flexible use and fixed installation: -25 °C to +60 °C at the conductor; maximum cable surface temperature: +50 °C
According to HD 516/VDE 0298-300: minimum laying and handling temperature: -25 °C; maximum ambient temperature for storage: +40 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600096	1 X 1.5	5.7 - 7.1	14.4	59
1600099	1 X 2.5	6.3 - 7.9	24.0	72
1600097	1 X 4	7.2 - 9.0	38.0	99
1600098	1 X 6	7.9 - 9.8	58.0	130
1600194	1 X 10	9.5 - 11.9	96.0	230
1600195	1 X 16	10.8 - 13.4	154.0	320
1600196	1 X 25	12.7 - 15.8	240.0	450
1600193	1 X 35	14.3 - 17.9	336.0	605
1600197	1 X 50	16.5 - 20.6	480.0	825
1600189	1 X 70	18.6 - 23.3	672.0	1090
1600190	1 X 95	20.8 - 26.0	912.0	1405
1600198	1 X 120	22.8 - 28.6	1,152.0	1745
1600191	1 X 150	25.2 - 31.4	1,440.0	1887
1600175	1 X 185	27.6 - 34.4	1,776.0	2274
1600177	1 X 240	30.6 - 38.3	2,304.0	2955
30015435	1 X 300	33.5 - 41.9	2,880.0	3479
1600117	3 G 1.0	8.3 - 10.7	29.0	130
1600199	2 X 1.5	8.5 - 11.0	29.0	135
1600103	3 G 1.5	9.2 - 11.9	43.0	165
16001233	4 G 1.5	10.2 - 13.1	58.0	200
16001043	5 G 1.5	11.2 - 14.4	72.0	240
1600151	7 G 1.5	14.0 - 17.5	101.0	385
1600148	12 G 1.5	17.6 - 22.4	173.0	516
1600259	19 G 1.5	20.7 - 26.3	274.0	800
1600166	24 G 1.5	24.3 - 30.7	346.0	882
1600263	25 G 1.5	25.1 - 25.9	360.0	920
1600187	2 X 2.5	10.2 - 13.1	48.0	195
1600118	3 G 2.5	10.9 - 14.0	72.0	235
16001053	4 G 2.5	12.1 - 15.5	96.0	290
16001293	5 G 2.5	13.3 - 17.0	120.0	294
1600152	7 G 2.5	16.5 - 20.0	168.0	520

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600154	12 G 2.5	20.6 - 26.2	14.4	810
1600156	19 G 2.5	25.5 - 31.0	456.0	1200
1600157	24 G 2.5	28.8 - 36.4	576.0	1650
1600186	2 X 4	11.8 - 15.1	77.0	270
1600119	3 G 4	12.7 - 16.2	115.0	320
16001063	4 G 4	14.0 - 17.9	154.0	395
16001303	5 G 4	15.6 - 19.9	192.0	485
1600161	7 G 4	21.0 - 21.8	268.8	681
1600120	3 G 6	14.1 - 18.0	173.0	360
16001073	4 G 6	15.7 - 20.0	230.0	475
16001313	5 G 6	17.5 - 22.2	288.0	760
1600121	3 G 10	19.1 - 24.2	288.0	880
16001083	4 G 10	20.9 - 26.5	384.0	1060
16001093	5 G 10	22.9 - 29.1	480.0	1300
1600122	3 G 16	21.8 - 27.6	461.0	1090
16001103	4 G 16	23.8 - 30.1	614.0	1345
16001113	5 G 16	26.4 - 33.3	768.0	1680
16001123	4 G 25	28.9 - 36.6	960.0	1995
16001133	5 G 25	32.0 - 40.4	1,200.0	2470
1600124	3 G 35	29.3 - 37.1	1,008.0	1910
16001143	4 G 35	32.5 - 41.1	1,344.0	2645
16001363	5 G 35	37.0 - 45.0	1,680.0	2810
16001153	4 G 50	37.7 - 47.5	1,920.0	3635
1600126	5 G 50	40.0 - 50.8	2,400.0	4050
16001163	4 G 70	42.7 - 54.0	2,688.0	4830
16001283	4 G 95	48.4 - 61.0	3,648.0	6320
16001323	4 G 120	53.0 - 66.0	4,608.0	6830
16000883	4 G 150	58.0 - 73.0	5,760.0	8320
1600141	4 G 185	64.0 - 80.0	7,104.0	9800
1600183	4 G 240	72.0 - 91.0	9,216.0	12800

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Cross-sections 5G35 and 5G50 without <HAR>

H07ZZ-F

Machines, devices; halogen-free: events, locations with a high density of people and valuable assets



Info

- Halogen-free and flame-retardant according to IEC 60332-3-24 (bundled fire test, category C)
- Harmonised (HAR)
- Ozone-resistant

Benefits

- Broad usages due to halogen-free materials
- According to VDE 0100-711, cables with low smoke emission are required in buildings for exhibitions, shows and stands without a fire alarm system
- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- Stage technology
- For mobile equipment and machines
- Dry or damp rooms, as well as outdoors acc. to HD 516/VDE 0298-300
- For buildings or industrial plants with a high density of people or valuable assets

Product features

- Low amount of corrosive gases in the event of fire
- Flame-retardant according to IEC 60332-1-2 and bundle flame test according to IEC 60332-3-24/EN 50266-2-4
- Low smokes/low smoke density in the event of fire according to IEC 61034
- Ozone-resistant acc. to HD 22, EN 50363-6, EN 60811-2-1, EN 50396-8.1.3

Approvals



Design

- Strands of bare copper wires
- Core insulation: Halogen-free rubber compound
- Outer sheath: rubber compound, halogen-free

Technical data

Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers

Approvals
VDE 0282 Part 13/HD 22.13 S 1

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

Minimum bending radius
Flexible use: 6 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U0/U: 450/750 VAC
In protected and fixed installations:
U0/U: 600/1000 V

Test voltage
2500 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Current rating
VDE 0298 Part 4
HD 516/VDE 0298-300

Temperature range
Flexible use: -5°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600810	3 G 1.5	9.2 - 11.9	43.2	125
1600811	4 G 1.5	10.2 - 13.1	57.6	155
1600812	5 G 1.5	11.2 - 14.4	72.0	190
1600815	14 G 1.5	18.8 - 21.3	201.6	570
1600816	18 G 1.5	20.7 - 26.3	259.2	750
1600820	3 G 2.5	10.9 - 14.0	72.0	185
1600821	4 G 2.5	12.1 - 15.5	96.0	235
1600822	5 G 2.5	13.3 - 17.0	120.0	290
1600823	7 G 2.5	18.2 - 20.7	168.0	520
1600825	14 G 2.5	22.2 - 25.0	336.0	860
1600836	4 G 4	14.0 - 17.9	153.6	325
1600837	5 G 4	15.6 - 19.9	192.0	410
1600841	4 G 6	15.7 - 20.0	230.4	440
1600842	5 G 6	17.5 - 22.2	288.0	550
1600844	4 G 10	20.9 - 26.5	384.0	770
1600845	5 G 10	22.9 - 29.1	480.0	950
1600847	4 G 16	23.8 - 30.1	614.4	1070
1600849	4 G 25	28.9 - 36.6	960.0	1570
1600851	4 G 35	32.5 - 41.1	1,344.0	2040
1600852	4 G 50	37.7 - 47.5	1,920.0	2810

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- H07RN-F refer to page 80

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654
- EASY STRIP 2 stripping and cutting tool refer to page 905
- PEW 8.87 crimping pliers refer to page 916
- KS 20 cable shears refer to page 904

Harsh conditions

Rubber cables

H01N2-D

Normative arc-welding cable



Info

- Arc welding cable according to HD 22.6
- Harmonised (HAR)

Benefits

- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- Application standard for H01N2-D: HD 516/ VDE 0298-300
- For transmitting high currents from the electric welding device to the welding tool
- Use the welding cable only under consideration of HD 516/VDE 0298-300
- Can be used in dry or damp rooms

Product features

- Flame-retardant according to IEC 60332.1.2
- Maximum recommended ambient temperature during storage according to HD 516/VDE 0298-300: +40 °C

Approvals



- Has replaced the previous VDE type NSLFFÖU

Design

- Bare copper wire according to HAR
- Stranding approximately corresponds to class 6 up to 95 mm², and from 120 mm² approximately to class 5 acc. to VDE 0295
- Separator made of synthetic film or paper
- Outer sheath: rubber compound, type EM5

Technical data

- Approvals**
DIN VDE VDE 0282 Part 6 or HD 22.6
- Conductor stranding**
Class D according to VDE 0282 Part 6
- Conductor resistance**
according to VDE 0295
- Minimum bending radius**
Flexible use: 12 x outer diameter
- Nominal voltage**
U₀/U: 100/100 V
- Test voltage**
1000 V
- Current rating**
Amp. According to VDE 0298 Part 4, table 16 HD 516/VDE 0298-300
- Temperature range**
Flexible use: -25°C to +85°C HD 516/VDE 0298-300

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
2310026	10	7.7 - 9.7	96.0	171
2210700	16	8.8 - 11.0	154.0	198
2210701	25	10.1 - 12.7	240.0	305
2210702	35	11.4 - 14.2	336.0	415
2210703	50	13.2 - 16.5	480.0	555
2210704	70	15.3 - 19.2	672.0	765
2210705	95	17.1 - 21.4	912.0	1010
2210706	120	19.2 - 24.0	1,152.0	1262
2210707	150	21.2 - 26.4	1,440.0	1610
2210708	240	25.0 - 29.5	2,304.0	2520

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- KS 20 cable shears refer to page 904

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

NSSHÖU

Mechanically robust rubber cable for mining and surface mining



Info

- High mechanical strength

Benefits

- For use at very high mechanical stress
- Single-core design suitable for robust connection cables for welding equipment

Application range

- For mining as well as surface mining
- Connection for moving equipment and machinery
- Under extreme environmental conditions
- Suitable for outdoor use, as well as in dry and damp interiors

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1
- High notch resistance
- Abrasion-resistant
- From a normative perspective, NSSHÖU is not generally antistatic per se, i.e. in concrete terms it has no antistatic outer sheath: similarly to capacitors, cables can be unintentionally electrically charged at the surface of their outer sheaths, which may cause sudden discharges and dust explosions. This may, in turn, cause other explosive substances located in the vicinity to also explode. This issue may apply to some mines

Approvals



Design

- Fine-wire strand made of tinned-copper wires
- Core insulation: rubber compound type 3GI3
- Inner sheath: rubber-compound, type GM1b or 5GM5
- Outer sheath: rubber compound, type 5GM5

Technical data

Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers

Approvals
VDE 0250 Part 812

Specific insulation resistance
> 1 GOhm x cm

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

Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
U₀/U: 600 / 1000 V

Test voltage
3000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Current rating
According to VDE 0298 Part 4, Table 15

Temperature range
Flexible use: -25°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NSSHÖU-O				
1600500	1 X 16	10.9	154.0	260
1600501	1 X 25	13.3	240.0	390
1600502	1 X 35	14.4	336.0	500
1600503	1 X 50	16.7	480.0	680
1600504	1 X 70	18.9	672.0	900
1600505	1 X 95	21.0	912.0	1150
1600506	1 X 120	23.3	1,152.0	1440
1600507	1 X 150	25.2	1,440.0	1750
1600508	1 X 185	28.4	1,776.0	2180
1600509	1 X 240	31.4	2,304.0	2790
NSSHÖU-J				
1600516	3 G 1.5	11.8	43.0	200
16005243	4 G 1.5	12.7	58.0	230
16005333	5 G 1.5	13.6	72.0	280
1600517	3 G 2.5	13.2	72.0	260
16005253	4 G 2.5	15.4	96.0	360
16005343	5 G 2.5	16.5	120.0	420
1600541	7 G 2.5	20.0	168.0	600
1600544	12 G 2.5	26.0	288.0	860
16005263	4 G 4	16.9	154.0	470
16005353	5 G 4	18.2	192.0	550
16005273	4 G 6	18.3	230.0	580
16005363	5 G 6	20.6	288.0	740
16005283	4 G 10	22.3	384.0	950
16005373	5 G 10	24.1	480.0	1100
16005293	4 G 16	26.1	614.0	1400
16005383	5 G 16	28.3	768.0	1720
16005303	4 G 25	31.2	960.0	2000
16005313	4 G 35	34.1	1,344.0	2700
16005323	4 G 50	41.0	1,920.0	3700

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE VS (N)SHTÖU refer to page 162
- ÖLFLEX® CRANE PUR refer to page 163

Accessories

- STAR STRIP stripping tool refer to page 906
- Cable shears KT 4 and KT 5 refer to page 904

Harsh conditions

Rubber cables

NSGAFöu 1.8/3 kV

Flexible single-conductor rubber cable with 1.8/3 kV rated voltage



Info

- Medium voltage
- Normative rated voltage classes U0/U 0.6/1 kVAc and 3.6/6 kVAc available on request

Benefits

- Arrangements made of single-conductor cables NSGAFÖU in accordance with VDE 0250 Part 602 with nominal voltage of at least U0/U: 1.8/3 kV can be used for short circuit-proof and short-to-ground-proof installation up to 1000 V in acc. with VDE 0100 Part 520 and VDE 0298 Part 3

Application range

- Wiring of machines, tools, devices, appliances and control cabinets
- Railway vehicles, buses, switching stations (short-circuit-proof up to 1000 V), power distributors (short-circuit-proof up to 1000 V)
- No direct burial, except of lead-through through fire separations such as sand cups
- In ducts, tubes, pipes, conduits and closed installation channels
- Bundled or for connection of movable parts

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1

Approvals



- The “CE” mark is forbidden as the normative nominal voltage U0/U = 1.8/3 kVAc falls outside low voltage as defined by the EC Low Voltage Directive 2006/95/EC, which is the standard to which the “CE” mark on most of the cables that we sell refers

Design

- Fine-wire strand made of tinned-copper wires
- Core insulation: rubber compound type 3GI3
- Outer coating: rubber compound, type 5GM3, black, different colours on request
- No outer sheath

Technical data



Approvals
VDE 0250 Part 602



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



Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage
U₀/U: 1.8/3 kV



Test voltage
6000 V



Current rating
According to VDE 0298 Part 4, Table 15



Temperature range
Flexible use: -25°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600300	1.5	7.0	14.4	60
1600301	2.5	7.5	24.0	70
1600302	4	9.0	38.0	90
1600303	6	9.5	58.0	120
1600304	10	11.0	96.0	180
1600305	16	13.0	154.0	250
1600306	25	15.0	240.0	390
1600307	35	16.5	336.0	470
1600308	50	18.0	480.0	625
1600309	70	20.5	672.0	880
1600310	95	24.0	912.0	1190
1600311	120	26.0	1,152.0	1430
1600312	150	28.0	1,440.0	1750
1600313	185	31.0	1,776.0	2160
1600314	240	34.5	2,304.0	2640
3026826	300	38.0	2,880.0	3545

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- V 1311 pressing pliers, hydraulic refer to page 930
- KS 20 cable shears refer to page 904

NSHXAFö 1.8/3 kV

Halogen-free, flexible single-core rubber cable for public transport and wiring



Info

- Medium voltage
- Halogen-free
- Normative rated voltage classes U0/U 0.6/1 kVAc and 3.6/6 kVAc available on request

Benefits

- Arrangements made of single-conductor cables NSHXAFö in accordance with VDE 0250 Part 606 with nominal voltage of at least U0/U: 1.8/3 kV can be used for short circuit-proof and short-to-ground-proof installation up to 1000 V in acc. with VDE 0100 Part 520 and VDE 0298 Part 3

Application range

- Wiring of machines, tools, devices, appliances and control cabinets
- Railway vehicles, buses, switching stations (short-circuit-proof up to 1000 V), power distributors (short-circuit-proof up to 1000 V)
- No direct burial, except of lead-through through fire separations such as sand cups
- In ducts, tubes, pipes, conduits and closed installation channels
- Bundled or for connection of movable parts

Product features

- Halogen-free: to protect human life and valuable assets in the event of a fire, through low smoke density and low amount of corrosive gases
- Flame-retardant according to IEC 60332.1.2

Approvals



- The “CE” mark is forbidden as the normative nominal voltage U0/U = 1.8/3 kVAc falls outside low voltage as defined by the EC Low Voltage Directive 2006/95/EC, which is the standard to which the “CE” mark on most of the cables that we sell refers

Design

- Fine copper wire strands
- Core insulation: halogen-free rubber compound type 3GI3, according to DIN VDE 0207-20
- Outer sheath: halogen-free HM3 polymer compound according to DIN VDE 0250-606, in black, other colours available on request
- No outer sheath

Technical data

- Approvals**
DIN VDE VDE 0250 Part 606
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Flexible use: 10 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U: 1.8/3 kV
- Test voltage**
6000 V
- Temperature range**
Flexing: -5°C to +90°C
Fixed installation: -25°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
3022673	1.5	7.0	14.4	60
3022674	2.5	7.5	24.0	70
3022675	4	9.0	38.0	90
3022676	6	9.5	58.0	120
3022677	10	11.0	96.0	180
3022678	16	13.0	154.0	250
3022679	25	15.0	240.0	390
3022680	35	16.5	336.0	470
3022681	50	18.0	480.0	625
3022682	70	20.5	672.0	880
3022683	95	24.0	912.0	1190
3022684	120	26.0	1,152.0	1430
3022685	150	28.0	1,440.0	1750
3022686	185	31.0	1,776.0	2160
3022687	240	34.5	2,304.0	2718
3022688	300	38.0	2,890.0	3470

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- V 1311 pressing pliers, hydraulic refer to page 930
- KS 20 cable shears refer to page 904

Harsh conditions

Rubber cables

H07RN8-F

Cable for submersible pumps



Info

- Formerly: ÖLFLEX AQUA RN8
- Harmonised (HAR)

Benefits

- Temporary use in water: a maximum of 2 weeks at a time (transversely waterproof), subsequent drying-out required
- Immersion depth of 10 m
- According to HD 516/VDE 0298-300, underwater use prohibited in areas with shipping traffic, moving water or where there is a risk of dangerous, mechanical damage
- High stresses
- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- For connecting electrical equipment in industrial water, e.g. floater switches
- Flexible applications in indoor and outdoor swimming pools
- For use with submersible pumps
- Dry or damp rooms, as well as outdoors and in industrial water

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1

Approvals



Design

- Strands of bare copper wires
- Core insulation: rubber compound type EI 4
- Outer sheath: rubber compound, type EM2

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Approvals

HD 22.16/VDE 0282 Part 16



Conductor stranding

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



Minimum bending radius

According to HD 516/VDE 0298-300, table 6(c): 3 x up to 8 x cable outer diameter, depending on the outer diameter and application involved



Nominal voltage

U0/U: 450/750 VAC
In protected and fixed installations:
U0/U: 600/1000 V



Test voltage

2500 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Current rating

VDE 0298 Part 4
HD 516/VDE 0298-300



Temperature range

Flexible (conductor temp.): -25 °C to +60 °C
Fixed (conductor temp.): -40 °C to +60 °C
Max. water temp.: +40 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600600	1 X 4	7.2 - 9.0	38.0	100
1600601	1 X 6	7.9 - 9.8	58.0	120
1600602	1 X 10	9.5 - 11.9	96.0	200
1600604	1 X 25	12.7 - 15.8	240.0	400
1600606	3 G 1.5	9.2 - 11.9	43.0	170
1600609	4 G 1.5	10.2 - 13.1	58.0	205
1600620	7 G 1.5	14.0 - 17.5	101.0	385
1600607	3 G 2.5	10.9 - 14.0	72.0	210
1600610	4 G 2.5	12.1 - 15.5	96.0	260
1600621	7 G 2.5	16.5 - 20.0	168.0	520
1600611	4 G 4	14.0 - 17.9	154.0	356
1600612	4 G 6	15.7 - 20.0	230.0	475
1600613	4 G 10	20.9 - 26.5	384.0	837
1600614	4 G 16	23.8 - 30.1	614.0	1220
1600615	4 G 25	28.9 - 36.6	960.0	1770
1600616	4 G 35	32.5 - 41.1	1,344.0	2304

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- H07RN-F refer to page 80

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654
- EASY STRIP 2 stripping and cutting tool refer to page 905
- PEW 8.87 crimping pliers refer to page 916
- KS 20 cable shears refer to page 904

ÖLFLEX® SERVO 700

Combined power and control cable for motors with variable frequency drives, PVC outer sheath



Info

- Combi motor cable for circuits such as:
- Power, brake, temperature



Benefits

- One common cable for multiple circuits

Application range

- Connecting cable between Frequency converter and motor
- Connecting cable between servo controller and motor
- Plant engineering

Product features

- Fixed installation
- Occasional flexing
- In dry, damp or wet interiors with normal mechanical stress conditions
- Only for outdoor use within the indicated operating temperature range, with UV-protection
- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC
- Control pairs 0.34 mm², colour-coded, from 0.5 mm² black with consecutive imprinted numbering
- Control pair with laminated aluminium film and tinned-copper wire screening
- The model with one control pair does not have laminated aluminium foil (FDF).
- PVC outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Supply cores: black with white numbers 1-3 according to VDE 0293 and GN/YE protective conductor;
0036 001: coloured according to VDE 0293
Control cores: black with white numbers 5-8 (numbering increases in line with cross-section);
0.34 mm² pairs: WH/BR/GN/YE
- Based on**
Core: VDE 0812/0250/0281
Outer sheath in accordance with VDE 0281/0250
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Flexible use: 20 x outer diameter
Fixed installation: 6 x outer diameter
- Nominal voltage**
Supply cores: 600/1000 V
Control core pairs: 250 V/AC
- Test voltage**
Supply cores: C/C; C/S: 4000 V
Control cores: C/C: 1500 V, C/S: 750 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +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)
0036140	4 G 0,75 + 2 x (2 x 0,34)	9.5	91.9	120
0036145	4 G 1,5 + 2 x (2 x 0,75)	12.1	100.6	185
0036150	4 G 2,5 + (2 x 2 x 0,75)	13.9	142.1	327
0036151	4 G 4 + (2 x 0,75 + 2 x 1,0)	15.8	217.8	423
0036152	4 G 6 + (2 x 0,75 + 2 x 1,0)	16.7	294.6	544
0036154	4 G 16 + (2 x 2 x 1,0)	23.5	668.8	1168
0036025	4 G 1,5 + (2 x 0,75)	11.7	98.0	149
0036001	5 G 1,5 + (2 x 0,75)	12.7	110.0	160
0036015	7 G 1,5 + (2 x 0,75)	12.4	144.8	210
0036026	4 G 2,5 + (2 x 0,75)	13.1	138.6	227
0036020	7 G 2,5 + (2 x 0,75)	15.2	215.7	334

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 750 P refer to page 95
- ÖLFLEX® SERVO FD 755 P refer to page 96
- ÖLFLEX® SERVO FD 795 P refer to page 102

Accessories

- Cable Marking Systems refer to page 854
- EPIC® CIRCON LS1 refer to page 614
- EPIC® CIRCON LS1 Contacts, tools, accessories refer to page 622
- SKINTOP® MS-SC-M refer to page 668
- SKINDICHT® SM-PE-M refer to page 694

Servo applications

PVC sheath

ÖLFLEX® SERVO 700 CY

Combined power and control cable for motors with variable frequency drives, screened, PVC outer sheath



Info

- Combi motor cable for circuits such as:
- Power, brake, temperature
- EMC-compliant

Benefits

- One common cable for multiple circuits
- Total screening prevents/reduces interference from neighbouring cables

Application range

- Connecting cable between Frequency converter and motor
- Connecting cable between servo controller and motor

Product features

- Fixed installation
- Occasional flexing
- In dry, damp or wet interiors
- Only for outdoor use within the indicated operating temperature range, with UV-protection
- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC
- Control pairs 0.34 mm², colour-coded, from 0.5 mm² black with consecutive imprinted numbering
- Control pair with laminated aluminium film and tinned-copper wire screening
- The model with one control pair does not have laminated aluminium foil (FDF).
- Tinned-copper braiding
- PVC outer sheath, grey (RAL 7001)

Technical data



Core identification code

Supply cores: black with white numbers 1-3 according to VDE 0293 and GN/YE protective conductor
Control cores: black with white numbers 5-8 (numbering increases in line with cross-section);
0.34 mm² pairs: WH/BR/GN/YE



Based on

Core: VDE 0812/0250/0281
Outer sheath in accordance with VDE 0281/0250



Conductor stranding

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



Minimum bending radius

Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage

Supply cores: 600/1000 V
Control core pairs: 250 V/AC



Test voltage

Supply cores: C/C; C/S: 4000 V
Control cores: C/C: 1500 V, C/S: 750 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Flexing: -5°C to +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)
0036156	4 G 0,75+2 x (2 x 0,34)	10.5	111.1	165
0036157	4 G 1,5+2 x (2 x 0,75)	12.7	147.5	245
0036158	4 G 2,5+(2 x 2 x 0,75)	14.9	226.1	385
0036159	4 G 4 + (2 x 0,75 + 2 x 1,0)	16.6	303.6	482
0036161	4 G 6 + (2 x 0,75 + 2 x 1,0)	17.7	379.4	609
0036162	4 G 10 + (2 x 0,75 + 2 x 1,0)	21.6	591.7	828
0036163	4 G 16 + (2 x 2 x 1,0)	24.5	861.3	1150
0036164	4 G 25 + (2 x 2 x 1,5)	30.1	1,261.8	1671

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 709 CY refer to page 91
- ÖLFLEX® SERVO FD 796 CP refer to page 103
- SERVO Cables in acc. to INDRAMAT® Standard INK refer to page 105

Accessories

- EPIC® CIRCON LS1 refer to page 614
- EPIC® CIRCON LS1 Contacts, tools, accessories refer to page 622

ÖLFLEX® SERVO 720 CY

Resolver & encoder cables for fixed installation



Info

- Fits encoders from various manufacturers
- Signal sensor/encoder cable
- Resolver



Benefits

- Thin, lightweight, reliable functionality
- Total screening prevents/reduces interference from neighbouring cables

Application range

- Analogue and incremental encoders in servo drives.
- Servo drives and servo assemblies
- Measurement, control and electrical applications

Product features

- Easy to install
- EMC-compliant
- Fixed installation
- Occasional flexing
- In dry, damp or wet interiors
- Flame-retardant according to IEC 60332.1.2

Approvals



- This product is designed for appropriate use in a voltage range < 50 V AC or 75 V DC. Therefore, the EEC (Low Voltage Directive) does not apply.

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Refer to "Technical Data" for the colour-codes
- Core and pairs are twisted together
- Tinned copper screen braiding (*with drain wire)
- PVC outer sheath, grey (RAL 7001)

Technical data



Core identification code
 0036 170 pairs: rd/bk, bn/gn, gy/pk, bl/vt; single cores: wt, bn
 0036 175 cores 0.14: wt, bn, gn, ye, gy, pk, bl, rd, bk, vt; cores 0.5: wt, bn
 0036 177 cores 0.14: wt, bn, gn, ye, gy, pk, bl, rd, bk, vt; cores 0.5: wt, bn, bl, bk
 0036 178 cores 0.5: wh, bn, gn, ye; cores 0.14 DIN 47100 from grey
 0036 181 pairs 0.14: rd/bk, bn/gn, ye/vt, gy/pk; single core 0.5: wh, bl, wtgn, bngn
 0036 168 pairs: 0.14 gn/ye, rd/bl, gy/pk; single core 0.5: wt, bn



Peak operating voltage
 (not for power applications): 350 V Uss
 Nominal voltage: 48 V AC



Based on
 Core in accordance with VDE 0812/0281 KRT
 Standard version with UL-approval, for multi-wire copper conductors with a cross-sectional range of 10 - 400 mm²



Specific insulation resistance
 > 20 GOhm x cm



Conductor stranding
 Fine wire according to VDE 0295, class 5/ IEC 60228 class 5 from 0.5 mm²



Minimum bending radius
 Occasional flexing: 20 x outer diameter
 Fixed installation: 6 x outer diameter



Test voltage
 C/C - C/S 2000 - 1000 V



Temperature range
 Occasional flexing: -5°C to +70°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)
0036170	4 x 2 x 0,25 + 2 x 1,0 *	8,9	70,8	128
0036175	10 x 0,14 + 2 x 0,5	7,9	39,3	88
0036177	10 x 0,14 + 4 x 0,5	8,0	51,1	94
0036178	15 x 0,14 + 4 x 0,5	8,7	59,7	125
0036181	4 x 2 x 0,14 + 4 x 0,5	8,1	48,8	95
0036168	3 x (2 x 0,14) + 2 x (0,5)	8,5	67,0	129

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 760 CP refer to page 97
- ÖLFLEX® SERVO FD 770 CP refer to page 98
- ÖLFLEX® SERVO FD 770 CP DESINA® refer to page 99
- Special Encoder and resolver cables refer to page 107

Accessories

- EPIC® CIRCON M23 Housings refer to page 597
- EPIC® CIRCON M23 Inserts refer to page 602
- EPIC® CIRCON M23 Contacts, tools, accessories refer to page 608

Servo applications

PVC sheath

ÖLFLEX® SERVO 2YSLCY-JB

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



Info

- EMC-optimised
- 3+3. Symmetry reduces common-mode interference effects
- Double-shielded

Benefits

- Allows EN 61800-3-compliant, EMC-compliant installation of power drive systems
- For very large power drive systems
- For more technical details, refer to data sheet DB0036425DE

Application range

- Connecting cable between frequency converter and motor
- Paper industry
- Chemical industry
- Heavy industry

Product features

- Low capacitance design allows a longer cable connection between the frequency converter and the motor
- In dry, damp or wet interiors
- The 2YSLCYK black version can also be used outdoors under direct exposure to UV rays. Direct burial in the ground is also possible.
- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: PE
- Cores twisted concentrically (in protective conductors divided into three, this is between the gussets)
- Aluminium foil wrapped over the cores
- Screening: wrapped with braided tinned-copper wires
- 4-core design: transparent PVC outer sheath
- 3+3 core version: black PVC outer sheath, for outdoor use and direct burial

Technical data

Core identification code
Colours according to HD 308 S2 VDE 0293-308

Based on
VDE 0207 / 0250 / 0295

Specific insulation resistance
> 20 GOhm x cm

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
U_v/U: 0.6/1kV

Test voltage
4000 V

Protective conductor
This is distributed evenly in the gussets in protective conductors that are divided into three

Temperature range
Flexing: -5°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036425	4 G 1.5	11.4	95.0	230
0036426	4 G 2.5	12.4	150.0	300
0036427	4 G 4	15.6	235.0	485
0036428	4 G 6	17.0	320.0	630
0036429	4 G 10	19.6	533.0	860
0036430	4 G 16	22.1	789.0	1290
0036431	4 G 25	26.3	1,236.0	1860
0036432	4 G 35	29.5	1,662.0	2610
0036433	4 G 50	35.8	2,345.0	2950
0036434	4 G 70	40.3	3,196.0	3950
0036435	4 G 95	46.5	4,316.0	5300
0036436	4 G 120	53.2	5,435.0	6600
0036437	4 G 150	57.3	6,394.0	7043
0036438	4 G 185	62.3	7,639.0	8384
0036439	3 X 1,5 + 3 G 0,25	11.4	88.0	140
0036440	3 X 2,5 + 3 G 0,5	12.2	144.0	220
0036441	3 X 4 + 3 G 0,75	14.4	224.0	323
0036442	3 X 6 + 3 G 1,0	15.7	276.0	420
0036443	3 X 10 + 3 G 1,5	18.0	491.0	615
0036444	3 X 16 + 3 G 2,5	20.2	723.0	819
0036445	3 X 25 + 3 G 4	23.8	1,136.0	1325
0036446	3 X 35 + 3 G 6	26.9	1,535.0	1718
0036447	3 X 50 + 3 G 10	32.6	2,156.0	2399
0036448	3 X 70 + 3 G 10	36.4	2,871.0	3056
0036449	3 X 95 + 3 G 16	42.0	3,953.0	4162
0036450	3 X 120 + 3 G 16	47.8	4,836.0	5074
0036451	3 X 150 + 3 G 25	51.6	5,412.0	6128
0036479	3 X 185 + 3 G35	56.5	7,041.0	7500

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

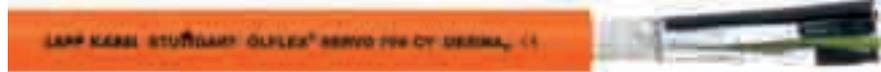
- ÖLFLEX® SERVO 9YSLCY-JB refer to page 92

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® SERVO 709 CY

Combined power and control cable for servomotors with UL AWM approval



Info

- EMC-compliant
- Fits servomotors from various manufacturers

Benefits

- One common cable for multiple circuits
- Multi-standard= fewer part varieties = cost savings

Application range

- Connecting cable between Frequency converter and motor
- Connecting cable between servo controller and motor
- Plant engineering
- Machine tools
- Printing machines

Product features

- Oil-resistant
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- Fixed installation
- Occasional flexing

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T 16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC
- Control pair with laminated aluminium film and tinned-copper wire screening
- Tinned-copper braiding
- PVC outer sheath, orange (RAL 2003)

Technical data

- Core identification code**
Supply cores: black with white numbers 1-3 according to VDE 0293 and GN/YE protective conductor
Control cores: black with white numbers 5-8 (numbering increases in line with cross-section);
0.34 mm² pairs: WH/BR/GN/YE
- Approvals**
USA UL AWM Style 20886 VW1; Canada cRU AWM II A/B FT1
- Based on**
VDE 0245, 250, 281
- Specific insulation resistance**
> 20 GOhm x cm
- 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**
IEC: power cores: 600/1000 V
Control cores: 300/500 V
UL: power cores: U: 1000 V
Control core pairs: U: 1000 V
- Test voltage**
Power cores: C/C & C/S 4000 V
Control cores: C/C: 4000 V; C/S: 3000 V
- Protective conductor**
G = with GN-YE protective conductor
- Temperature range**
Occasional flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0038010	4 G 1,5 CY	9.9	90.0	173
0038011	4 G 2,5 CY	11.8	134.0	250
0038012	4 G 4 CY	13.8	217.0	368
0038013	4 G 6 CY	15.3	296.0	478
0038014	4 G 10 CY	19.5	491.0	781
0038015	4 G 16 CY	23.4	742.0	1198
0038016	4 G 25 CY	27.5	1,114.0	1730
0038017	4 G 35 CY	30.9	1,522.0	2284
0038018	4 G 50 CY	38.5	2,194.0	3393
0038019	4 G 0,75 + 2 x (2 x 0,34)	12.4	96.0	225
0038020	4 G 1,0 + 2 x (2 x 0,75)	13.6	149.0	296
0038021	4 G 1,5 + 2 x (2 x 0,75)	14.8	169.0	343
0038022	4 G 2,5 + 2 x (2 x 1,0)	16.3	238.0	420
0038023	4 G 4 + (2 x 1,0 + 2 x 1,5)	16.7	317.0	537
0038024	4 G 6 + (2 x 1,0 + 2 x 1,5)	19.2	426.0	704
0038025	4 G 10 + (2 x 1,0 + 2 x 1,5)	22.5	599.0	965
0038026	4 G 16 + (2 x 1,0 + 2 x 1,5)	25.5	873.0	1380
0038027	4 G 25 + (2 x 2 x 1,5)	30.6	1,265.0	1954
0038028	4 G 35 + (2 x 2 x 1,5)	33.4	1,659.0	2564
0038029	4 G 50 + (2 x 2 x 2,5)	41.0	2,349.0	3785

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

Copper price basis: EUR 150/100kg. Refer to 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).

DESINA® is a registered trademark of the German Machine Tool Builders' Association

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

Similar products

- ÖLFLEX® SERVO 700 CY refer to page 88
- ÖLFLEX® SERVO FD 796 CP refer to page 103
- SERVO Cables in acc. to INDRAMAT® Standard INK refer to page 105

Accessories

- EPIC® CIRCON LS1 refer to page 614
- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669

Servo applications

PVC sheath, approved

ÖLFLEX® SERVO 9YSLCY-JB

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



Info

- EMC-optimised
- 3+3. Symmetry reduces common-mode interference effects
- Double-shielded

Benefits

- Allows EN 61800-3-compliant, EMC-compliant installation of power drive systems
- For very large power drive systems
- EN/VDE 90 °C PP insulation

Application range

- Connecting cable between frequency converter and motor
- Paper industry
- Chemical industry
- Heavy industry

Product features

- Low capacitance design allows a longer cable connection between the frequency converter and the motor
- In dry, damp or wet interiors
- 9YSLCY black design: also for outdoor applications, as well as direct burial, but not for USA or Canada
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Core insulation: polypropylene (PP)
- Cores twisted concentrically (in protective conductors divided into three, this is between the gussets)
- Aluminium foil wrapped over the cores
- Screening: wrapped with braided tinned-copper wires
- 4-core design: transparent PVC outer sheath
- 3+3 core version: black PVC outer sheath, for outdoor use and direct burial

Technical data



Core identification code

Colours according to HD 308 S2 VDE 0293-308



Approvals

UL reg. for the USA: AWM Style 2570 or 20886, 1 kV 80° VW-1
 UL reg. for CAN. AWM I/II A/B 1 kV 80° FT 1
 EU: based on VDE 0276, 0250, 0207



Specific insulation resistance

> 20 GOhm x cm



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 U_c/U: 600/1000V
 UL & CSA: 1000 V



Test voltage

4000 V



Protective conductor

This is distributed evenly in the gussets in protective conductors that are divided into three



Temperature range

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

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0037000	4 G 1,5	10,5	87,0	230
0037001	4 G 2,5	11,8	133,0	300
0037002	4 G 4	13,3	213,0	485
0037003	4 G 6	14,9	298,0	630
0037004	4 G 10	17,7	460,0	860
0037005	4 G 16	21,5	707,0	1290
0037006	4 G 25	26,3	1,100,0	1860
0037007	4 G 35	29,7	1,542,0	2610
0037008	4 G 50	34,1	2,206,0	2950
0037009	4 G 95	40,9	3,002,0	3950
0037010	4 G 95	45,4	4,004,0	5300
0037011	4 G 120	49,8	5,108,0	6600
0037012	4 G 150	56,1	6,225,0	7043
0037013	4 G 185	61,4	7,568,0	8384
0037014	4 G 240	67,9	9,940,0	12150
0037015	3 X 1,5 + 3 G 0,25	11,4	88,0	140
0037016	3 X 2,5 + 3 G 0,5	12,9	130,0	220
0037017	3 X 4 + 3 G 0,75	13,6	224,0	323
0037018	3 X 6 + 3 G 1,0	15,2	276,0	420
0037019	3 X 10 + 3 G 1,5	17,4	511,0	615
0037020	3 X 16 + 3 G 2,5	20,0	751,0	819
0037021	3 X 25 + 3 G 4	24,3	1,204,0	1325
0037022	3 X 35 + 3 G 6	27,5	1,535,0	1718
0037023	3 X 50 + 3 G 10	31,1	2,156,0	2399
0037024	3 X 70 + 3 G 10	37,1	2,980,0	3056
0037025	3 X 95 + 3 G 16	40,0	3,953,0	4162
0037026	3 X 120 + 3 G 16	42,6	4,836,0	5074
0037027	3 X 150 + 3 G 25	50,0	5,412,0	6128
0037028	3 X 185 + 3 G 35	55,6	7,077,0	7820

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 2YSLCY-JB refer to page 90

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINDICHT® SM-PE-M refer to page 694
- SKINTOP® MS-M BRUSH refer to page 669

SERVO cables in acc. to SIEMENS® Standard 6FX 5008- Sensor leads for signal transmission systems and motor connection cables



Info

- Cost-saving alternative to the FX8 series
- for installations that are fixed or with occasional movements
- EMC-compliant

Benefits

- New motor & servomotor cables up to 6 mm²: low capacitance characteristics due to PP insulation
- Multi-standard= fewer part varieties = cost savings

Application range

- Servo and power drive systems
- Plant engineering
- Machine tool manufacture
- Printing machines

Product features

- Oil-resistant
- Flame-retardant according to IEC 60332.1.2 & CSA FT1

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Design according to SIEMENS® standard 6FX 5008
- Core insulation: up to 6 mm² = PP; 10 mm² and larger = PVC
- Core and pairs are twisted together
- Tinned-copper braiding
- Outer sheath made of special PVC compound
- Signal cables: green (RAL 6018)
- Motor and servomotor cables: orange (RAL 2003)

Technical data



Approvals

Power cable:
VDE-registered
UL/CSA AWM Style 2570
Signal cables:
UL/CSA AWM style 2502



Conductor stranding

Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius

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



Nominal voltage

Signal cables:
- 30 V AC/DC (UL/CSA)
- 30 V AC (IEC)
Power cable:
- Power cores:
1000 V (UL/CSA)
600/1000 V (IEC)
- Control cores:
1000 V (UL/CSA)
30 V AC (IEC)



Test voltage

Power cable:
Power cores: 4000 V eff.
Control cores: 2000 V eff.
Signal cables: 500 V rms



Temperature range

Fixed installation: from -20°C to +80°C
Flexing: from -0°C to +60°C

Article number	Number of cores and mm ² per conductor	Reference article no.	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Signal cables					
0025724	4 x 2 x 0,38 + 4 x 0,5	6FX5008-1BD21	9,0	76,4	120
0025725	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5	6FX5008-1BD41	8,9	63,0	100
0025726	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5 + 4 x 0,23	6FX5008-1BD51	9,5	69,0	139
Motor cables					
00257001	4 G 1,5	6FX5008-1BB11 LC	8,0	88,0	131
00257011	4 G 2,5	6FX5008-1BB21 LC	9,6	132,0	219
00257021	4 G 4	6FX5008-1BB31 LC	11,0	195,0	312
00257031	4 G 6	6FX5008-1BB41 LC	13,1	280,0	380
0025704	4 G 10	6FX5008-1BB51	19,3	445,0	620
0025705	4 G 16	6FX5008-1BB61	23,3	715,0	1060
0025706	4 G 25	6FX5008-1BB25	26,9	1,110,0	1640
0025707	4 G 35	6FX5008-1BB35	30,3	1,540,0	2310
0025708	4 G 50	6FX5008-1BB50	36,5	2,160,0	3240
Servo cables					
00257151	4 G 1,5 + (2 x 1,5)	6FX5008-1BA11 LC	10,4	150,0	248
00257161	4 G 2,5 + (2 x 1,5)	6FX5008-1BA21 LC	12,0	194,0	310
00257171	4 G 4 + (2 x 1,5)	6FX5008-1BA31 LC	13,6	272,0	445
00257181	4 G 6 + (2 x 1,5)	6FX5008-1BA41 LC	15,6	351,0	554
0025719	4 G 10 + (2 x 1,5)	6FX5008-1BA51	21,0	536,0	806

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

Copper price basis: EUR 150/100kg. Refer to 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).

Siemens part designations (6FX5002/5008, 6FX7002/7008, 6FX8002/8008) are registered trademarks of Siemens AG, and are listed for comparison purposes only. DESINA® is a registered trademark of the German Machine Tool Builders' Association.

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

Article numbers refer to genuine Lapp products.

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

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 103
- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 104

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668

Servo applications

PVC sheath, approved

SERVO Cables in acc. to SEW® Standard

Combined power and control cable for servomotors with UL AWM approval



Info

- DESINA®-compliant
- For power and brake circuits
- EMC-compliant

Benefits

- Multi-standard= fewer part varieties = cost savings

Application range

- Specially designed to connect to SEW servomotors
- Connecting cable between servo controller and motor
- Plant engineering
- Machine tools
- Printing machines

Product features

- For fixed installation or applications with occasional movements
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- Flame-retardant according to UL VW1/CSA FT1

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of bare copper wires
- Core insulation: TPE
- Control core triplet with laminated aluminium film and a layer of tinned-copper wires
- Cores twisted in short lay lengths
- Tinned-copper braiding
- PVC outer sheath, orange (RAL 2003)

Technical data



Core identification code

Power: black cores with U, VV, WWW printing and 1 core gnye
Control cores: black cores with numbers 1, 2 and 3



Approvals

UL-AWM-Style 2570



Based on

VDE 0250, 0281



Specific insulation resistance

> 20 GOhm x cm



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

Power cores: IEC 750 V, UL 600 V
Control cores: 1 mm² and 1.5 mm: IEC 350 V, UL 600 V



Test voltage

2000 V



Protective conductor

G = with GN-YE protective conductor



Temperature range

Flexing: -10°C to +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)
0038060	4 G 1,5 + (3 x 1,0)	11.8	151.0	300
0038061	4 G 2,5 + (3 x 1,0)	13.4	212.9	370
0038062	4 G 4 + (3 x 1,0)	15.0	281.8	476
0038063	4 G 6 + (3 x 1,5)	17.0	392.8	625
0038064	4 G 10 + (3 x 1,5)	20.0	625.1	1024

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

Copper price basis: EUR 150/100kg. Refer to 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).

SEW is a registered trademark of SEW Eurodrive GmbH & Co KG, Ernst-Blickle Str. 42, D-76646 Bruchsal

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

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® SERVO FD 750 P

Combined power and control cable for servomotors



Info

- For power, brake and overheating monitoring circuits
- Fits servomotors from various manufacturers
- Please note: discontinued product! <Reduced range of sizes>



Benefits

- Well-proven, reliable

Application range

- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC or TPE (control cores)
- Control core pairs: screened with laminated aluminium film and a layer of tinned-copper wires
- Core and pairs are twisted together
- Non-woven wrapping
- Outer sheath: co-extruded PVC-PUR compound, grey (RAL 7001)

Technical data

- Core identification code**
Supply cores: black with white numbers 1-3 according to VDE 0293 and GN/YE protective conductor
Control cores: black with white numbers 5-8 (numbering increases in line with cross-section); 0.34 mm² pairs: WH/BR/GN/YE
- Based on**
DIN VDE VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GΩm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6* *) from 0.5 mm²
- Minimum bending radius**
For flexible use: 12 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
Power core: 600/1000 V
Control cores: 250 V AC
- Test voltage**
Power cores: 4000 V
Control cores: C/C: 1500 V, C/S: 750 V
- Protective conductor**
G = with gn-ye protective conductor
- Temperature range**
Flexing: -10°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036240	4 G 0,75 + 2 x (2 x 0,34 Std)	9.6	54.0	106
0036245	4 G 1,5 + 2 x (2 x 0,75 Std)	11.8	100.6	185
0036250	4 G 2,5 + 2 x (2 x 0,75 Std)	14.8	140.7	308
0036251	4 G 4 + (2 x 0,75 Std) + (2 x 1,0 Std)	16.4	216.4	420
0036252	4 G 6 + (2 x 0,75 Std) + (2 x 1,0 Std)	18.8	293.2	550
0036253	4 G 10 + (2 x 0,75 Std) + (2 x 1,0 Std)	22.9	446.0	804

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 755 P refer to page 96
- ÖLFLEX® SERVO FD 795 P refer to page 102

Accessories

- SKINTOP® ST-M refer to page 652
- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Servo applications - power drive systems

ÖLFLEX® SERVO FD 755 P

Super-flexible servomotor connection cables for long-distance power chains



Info

- For power, brake and overheating monitoring circuits
- Please note: discontinued product! <Reduced range of sizes>
- MUD res. according to IEC61892-4 Annex D

Benefits

- Suitable for use with servomotor drive systems from leading manufacturers
- Well-proven, reliable
- Also suitable for mobile outdoor use
- Halogen-free

Application range

- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- Flexible down to -40°C

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Control core pairs: screened with laminated aluminium film and a layer of tinned-copper wires
- Pairs and cores twisted together with polyester fibres in extremely short lay lengths
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data



Core identification code

Supply cores: black with white numbers 1-3 according to VDE 0293 and GN/YE protective conductor
Control cores: black with white numbers 5-8 (numbering increases in line with cross-section);
Versions with two control cores: numbers 5-6



Based on

VDE 0250/0281/0282



Specific insulation resistance

> 20 GOhm x cm



Conductor stranding

Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6**). Control pairs fine-wire from 0.5 mm²



Minimum bending radius

For flexible use: 5 x outer diameter
Fixed installation: 3 x outer diameter



Nominal voltage

Supply cores: 600/1000 V
Operating voltage: control cores: 250 V AC



Test voltage

Supply cores: 4000 V
Control cores: C/C: 1500 V; C/S: 750 V



Protective conductor

G = with GN-YE protective conductor



Temperature range

Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036350	4 G 1,5 + 2 x (2 x 0,75)	14.1	96.0	211
0036351	4 G 2,5 + 2 x (2 x 0,75)	15.1	134.0	259
0036353	4 G 6 + (2 x 0,75) + (2 x 1,0)	17.2	283.0	444
0036601	4 G 1,5 + (2 x 1,0)	11.6	86.4	180
0036602	4 G 2,5 + (2 x 1,0)	12.6	124.8	234
0036603	4 G 4 + (2 x 1,0)	14.7	182.4	320
0036604	4 G 6 + (2 x 1,0)	16.3	259.2	404
0036605	4 G 10 + (2 x 1,0)	20.2	413.0	635
0036606	4 G 16 + (2 x 1,5)	22.9	660.3	943
0036608	4 G 35 + (2 x 1,5)	31.3	1,389.9	1864

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 795 P refer to page 102

Accessories

- EPIC® CIRCON LS1 refer to page 614
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® SERVO FD 760 CP

Cable for speedometer



Info

- EMC-compliant
- Well-proven, reliable
- MUD res. according to IEC61892-4 Annex D



Benefits

- Thin, optimised for weight and volume
- Total screening prevents/reduces interference from neighbouring cables
- Also suitable for mobile outdoor use
- Halogen-free

Application range

- Connecting cable between servo controller and speed generators
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- Flexible down to -40°C

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores twisted in short lay lengths
- Tinned-copper screen braiding or as wrapping (*with drain wire)
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001) or green (RAL 6018)

Technical data

- Core identification code**
0036 260 & 0036 760: bl, wh, rd, pk, gn, ye, bn, bk, gy
- Based on**
Core in accordance with VDE 0812/0281
Outer sheath in accordance with VDE 0250/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 12 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
48 V AC
Peak operating voltage: 450 V Upp
(not for power applications)
- Test voltage**
C/C-C/S 2000 - 1000 V
- Temperature range**
Flexing: -40°C to +75°C
Fixed installation: -50°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036260	9 X 0,5	9,4	73,0	144
0036760	9 X 0,5 DESINA®	9,4	73,0	144

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- Circular connectors refer to page 597
- SILVYN® CHAIN cable protection and guiding systems

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ÖLFLEX® SERVO FD 770 CP

Encoder and resolver cables



Info

- **EMC-compliant**
- **Well-proven, reliable**
- **MUD res. according to IEC61892-4 Annex D**

Benefits

- Thin, optimised for weight and volume
- Total screening prevents/reduces interference from neighbouring cables
- Also suitable for mobile outdoor use
- Halogen-free

Application range

- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- Flexible down to -40°C

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores (or core pairs) twisted in layers or bundles
- Non-woven wrapping
- Tinned copper screen braiding (*with drain wire)
- PUR outer sheath, grey (RAL 7001)

Technical data



Core identification code

0036 270 pairs: rd/bk, bn/gn, gy/pk, bl/vt; single core: wh, bn
 0036 280 pairs: wh/bn, gn/ye, gy/pk, bl/rd, bk/vt, gy-pk/rd-bl; single core: wh, bn
 0036 275 cores 0.14: wh, bn, gn, ye, gy, pk, bl, rd, bk, vt; cores 0.5: wh, bn0036 277 cores 0.14: wh, bn,
 0036 641 see 0036 26
 0036 278 single cores: cores 0.14 DIN 47100 from grey: 0.5 mm²: wh, bn, gn, ye
 0036 281 pairs: rd/bk, bn/gn, ye/vt, gy/pk; single core: wh, bl, whgn, bngn
 0036 268 pairs: gn/ye, rd/bl, gy/pk; single core: wh, bn
 0036 269: 0.14 mm² ye,



Based on

Core in accordance with VDE 0812/0281
 Outer sheath in accordance with VDE 0250/0282



Specific insulation resistance

> 20 GOhm x cm



Conductor stranding

Extra-fine wire according to VDE 0295, class 6/
 IEC 60228 class 6



Minimum bending radius

For flexible use: 12 x outer diameter
 Fixed installation:
 4 x outer diameter



Nominal voltage

48 V AC
 Peak operating voltage: 350 V Upp
 (not for power applications)



Test voltage

C/C-C/S 2000 - 1000 V



Temperature range

Flexing: -40°C to +75°C
 Fixed installation: -50°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036270	4 x 2 x 0,25 + 2 x 1,0	8.9	72.0	122
0036280	6 x 2 x 0,25 + 2 x 0,5	10.3	87.0	152
0036275	10 x 0,14 + 2 x 0,5	7.7	39.3	82
0036277	10 x 0,14 + 4 x 0,5	8.1	51.1	97
0036278	15 x 0,14 + 4 x 0,5	8.7	59.3	113
0036281	4 x 2 x 0,14 + 4 x 0,5	8.2	48.8	91
0036268	3 x (2 x 0,14) + 2 x (0,5)	8.2	60.0	122
0036269	3 x (2 x 0,14) + (2 x 0,14 + 2 x 0,5) + (4 x 0,22 + 2 x 0,14)	10.0	86.0	111

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- Circular connectors refer to page 597
- SILVYN® CHAIN cable protection and guiding systems

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ÖLFLEX® SERVO FD 770 CP DESINA®

Encoder and resolver cables, DESINA® green



Info

- EMC-compliant
- Well-proven, reliable
- MUD res. according to IEC61892-4 Annex D



Benefits

- Thin, optimised for weight and volume
- Total screening prevents/reduces interference from neighbouring cables
- Also suitable for mobile outdoor use
- Halogen-free

Application range

- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table TO of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- Flexible down to -40°C

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores (or core pairs) twisted in layers or bundles
- Non-woven wrapping
- Tinned copper screen braiding (*with drain wire)
- PUR outer sheath, green (RAL 6018)

Technical data

- Core identification code**
refer to 770 CP
- Based on**
Core in accordance with VDE 0812/0281 KRT
Standard version with UL-approval, for multi-wire copper conductors with a cross-sectional range of 10 - 400 mm²
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6/IEC 60228 class 6
- Minimum bending radius**
For flexible use: 12 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
48 V AC
Peak operating voltage: 350 V Upp
(not for power applications)
- Test voltage**
C/C-C/S 2000 - 1000 V
- Temperature range**
Flexing: -40°C to +75°C
Fixed installation: -50°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036640	2 x 2 x 0,14 + 2 x (2 x 0,14) + 4 x 0,5 + (4 x 0,14)	8.1	65.4	105
0036641	3 x (2 x 0,14) + (2x 0,14 + 2 x 0,5) + (4 x 0,22 + 2 x 0,14)	10.0	86.0	111
0036642	4 x 2 x 0,38 + 4 x 0,5	9.8	84.2	144
0036901	4 x 2 x 0,25	7.4	43.2	89

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).
DESINA® is a registered trademark of the German Machine Tool Builders' Association
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 104
- ÖLFLEX® SERVO FD 770 CP refer to page 98
- Special Encoder and resolver cables refer to page 107

Accessories

- Circular connectors refer to page 597
- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Servo applications - power drive systems

ÖLFLEX® SERVO FD 781 CY

Cost-effective, low-capacitance, screened servomotor cable



Info

- EMC-compliant

Benefits

- Well-priced
- Well-proven, reliable

Application range

- Connecting cable between Frequency converter and motor
- For power circuits in machine cabling
- In dry, damp or wet interiors with normal mechanical stress conditions
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Product features

- Low capacitance design allows a longer cable connection between the frequency converter and the motor
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- Low-adhesive surface
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: polypropylene (PP)
- Cores twisted in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PVC outer sheath, orange (RAL 2003)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
- Minimum bending radius**
Flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
U₀/U:
0.6/1kV
- Test voltage**
4000 V
- Protective conductor**
G = with gn-ye protective conductor
- Temperature range**
Flexing: -5°C to +70°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)
0036320	4 G 1.5	9.8	89.0	157
0036321	4 G 2.5	11.9	133.8	233
0036322	4 G 4	13.5	210.9	335
0036324	4 G 10	19.7	488.2	747
0036325	4 G 16	23.9	744.8	1109
0036327	4 G 35	33.3	1,565.4	2264
0036328	4 G 50	38.3	2,174.9	3090

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 103
- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 104

Accessories

- Rectangular connectors refer to page 450
- EPIC® CIRCON LS1 refer to page 614
- SKINDICHT® EMC/Earthing refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

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ÖLFLEX® SERVO FD 785 P

Extra-flexible 0.6/1 kV motor supply cable for long travel distances



Info

- Smallest bending radii of all FD cables
- Please note: discontinued product!
<Reduced range of sizes>
- MUD res. according to IEC61892-4 Annex D

Benefits

- Well-proven, reliable
- Flexible down to -40°C

Application range

- Power circuits for electrical equipments used in automation engineering
- For power circuits in machine cabling
- In dry, damp or wet interiors with normal mechanical stress conditions
- For outdoor applications
- For use in 690 V industrial power circuits

Product features

- Low capacitance design allows a longer cable connection between the frequency converter and the motor
- Oil-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Low-adhesive surface
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: Based on TPE
- Cores twisted in extremely short lay lengths
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 5 x outer diameter
Fixed installation: 3 x outer diameter
- Nominal voltage**
600/1000 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
- Temperature range**
Flexing: -40°C to +80°C
Fixed installation: -50°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0036380	4 G 1.5	10.0	58.0	129
0036381	4 G 2.5	11.9	96.0	187
0036382	4 G 4	13.7	154.0	273
0036383	4 G 6	15.1	231.0	358
0036384	4 G 10	19.6	384.0	585
0036385	4 G 16	22.8	615.0	863
0036650	5 G 1.5	11.2	72.0	166
0036651	5 G 2.5	13.3	120.0	246
0036652	5 G 4	15.2	192.0	350
0036653	5 G 6	16.8	288.0	473
0036655	5 G 16	25.5	768.0	1168
0036656	5 G 25	30.8	1,200.0	1789

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 795 P refer to page 102

Accessories

- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Servo applications - power drive systems, approved

ÖLFLEX® SERVO FD 795 P

Super-flexible servomotor connection cables for power chain applications for the European and North American markets



Info

- For power, brake and overheating monitoring circuits
- Please note: discontinued product! <Reduced range of sizes>

Benefits

- Multi-standard= fewer part varieties = cost savings
- Also suitable for mobile outdoor use

Application range

- Connecting cable between servo controller and motor
- Connecting cable between Frequency converter and motor
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1
- Flexible down to -40°C

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- DESINA®-compliant

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Individual design depending on the item: power cores with or without one pair, or with two control core pairs, in pairs, with double screening, twisted together in short lay lengths
- Non-woven wrapping
- PUR outer sheath, black (RAL 9005)

Technical data



Core identification code
Supply cores: black with white numbers 1-3 according to VDE 0293 and GN/YE protective conductor
Control cores: black with white numbers 5-6



Approvals
Without control pairs: UL AWM Style 20234
With control pairs UL-AWM-Style 20235



Based on
VDE 0250/0281/0282



Specific insulation resistance
> 20 GOhm x cm



Conductor stranding
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6



Minimum bending radius
For flexible use: 5 x outer diameter
Fixed installation: 3 x outer diameter



Nominal voltage
IEC: power cores: 600/1000 V
Control cores: U: 250 V AC
UL: without control pairs: 600 V, with control pairs: depends on the final application



Test voltage
Power cores: 4000 V
Control cores: 750 V



Protective conductor
G = with GN-YE protective conductor



Temperature range
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
3028268	4G 1,5 + (2 x 1,0)	13.0	81.4	166
3028269	4G 2,5 + (2 x 1,0)	13.4	119.8	185
3028270	4G 4 + (2 x 1,0)	14.8	177.4	243
3028271	4G 6 + (2 x 1,0)	16.4	254.2	292
3028272	4G 10 + (2 x 1,0)	20.8	412.4	690
3028479	4 G 0,75	9.7	28.8	103
3028277	4 G 2,5	11.7	96.0	191
3028278	4 G 4	13.7	153.6	278
3028279	4 G 6	15.1	230.4	376
3028281	4 G 16	26.5	614.4	1058
3028282	4 G 25	30.5	960.0	1535
3028283	4 G 35	34.5	1,344.0	2035

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 750 P refer to page 95
- ÖLFLEX® SERVO FD 755 P refer to page 96

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

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New

ÖLFLEX® SERVO FD 796 CP



Info

- New high-end version! For very dynamic motion sequences
- Slim = less space required
- Multiple Certifications

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard= fewer part varieties = cost savings
- Suitable for the most important servomotor drive systems of leading manufacturers.
- Benefit: The modified design of the control pairs brings less voltage drop and allows significant higher working voltage of the associated circuits
- To substitute 7 ÖLFLEX SERVO FD product lines:
755CP/-755CP DESINA/-781CP/-785CP/-785CP DESINA/-790CP/-795CP

Application range

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

Product features

- Dynamic performance in power chains: Accelerations up to 50m/s². Travel speed: up to 5m/s. Travel lengths up to 100m.
- Low-capacitance design: This may result in lower EMI interference, depending on the drive's electrical operating conditions.
- Halogen-free materials
- Flame retardancy: UL/CSA: VW-1, FT1. IEC/EN: 60332.1-2
- Oil resistant

Approvals



- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: Polypropylene (PP)
- According P/N individual design: Power cores without, or with one pair. or with two control core pairs arranged as pairs, twisted together in short lay lengths.
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Technical data

Core identification code
Power: black cores with marking U/L1/C/L+; V/L2; W/L3/D/L-and 1 green-yellow core
Optional Design with one pair of control cores: black; white. Two pairs of control cores: black with white numbers: 5, 6, 7, 8

Approvals
VDE reg submitted
UL AWM Style 20234
CSA AWM I/II A/B 1000V 80° FT 1

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6

Minimum bending radius
For flexible applications:
7.5 x outside diameter (1.5-16mm²)
10 x outside diameter (25-50mm²)
Fixed installation: 4 x outer diameter

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

Test voltage
Core/Core: 4 kV
Core/Screen: 4 kV

Protective conductor
G = with GN-YE protective conductor

Temperature range
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO FD 796 CP				
0027950	4 G 1,5	9.2	79.0	140
0027951	4 G 2,5	10.6	129.0	197
0027952	4 G 4	11.9	186.0	268
0027953	4 G 6	14.4	296.0	397
0027954	4 G 10	17.6	449.0	591
0027955	4 G 16	22.0	716.0	955
0027956	4 G 25	25.2	1,073.0	1337
0027957	4 G 35	28.7	1,480.0	1769
0027958	4 G 50	33.4	2,115.0	2468
0027959	4 G 1,5 + (2 x 1,5)	12.0	135.0	261
0027960	4 G 2,5 + (2 x 1,5)	13.8	188.0	318
0027961	4 G 4 + (2 x 1,5)	14.9	235.0	385
0027962	4 G 6 + (2 x 1,5)	17.0	329.0	486

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027963	4 G 10 + (2 x 1,5)	19.4	515.0	701
0027964	4 G 16 + (2 x 1,5)	23.8	757.0	1048
0027965	4 G 25 + (2 x 1,5)	27.0	1,147.0	1532
0027966	4 G 35 + (2 x 1,5)	31.2	1,538.0	2097
0027967	4 G 50 + (2 x 1,5)	34.7	2,181.0	2721
0027969	4 G 1,5 + 2 x (2 x 0,75)	12.2	159.0	313
0027970	4 G 2,5 + 2 x (2 x 1,0)	14.6	207.0	395
0027971	4 G 4 + (2 x 1,0) + (2 x 1,5)	16.3	344.0	485
0027972	4 G 6 + (2 x 1,0) + (2 x 1,5)	18.1	436.0	588
0027973	4 G 10 + (2 x 1,0) + (2 x 1,5)	21.8	610.0	819
0027974	4 G 16 + 2 x (2 x 1,5)	25.5	801.0	1135
0027975	4 G 25 + 2 x (2 x 1,5)	28.9	1,187.0	1559
0027976	4 G 35 + 2 x (2 x 1,5)	31.4	1,588.0	2093
0027977	4 G 50 + 2 x (2 x 2,5)	36.8	2,557.0	2920

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 104
- SERVO Cables in acc. to INDRAMAT® Standard INK refer to page 105

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668

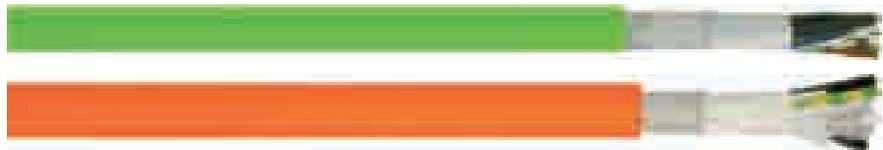
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Power chain applications

Servo applications - power drive systems, approved

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

Sensor leads for signal transmission systems and motor connection cables



Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard= fewer part varieties = cost savings

Application range

- Connecting cable between servo controller and encoder/resolver
- 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
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 10 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Torsion-resistant up to ±30°/m
- Abrasion and cut-resistant, halogen-free, oil-resistant
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- DESINA®-compliant

Design

- 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)
- Servomotor cables: orange (RAL 2003)



Info

- **New high-end version!** For very dynamic motion sequences
- Servo drives
- Signal sensor/encoder cable

Technical data



Approvals

Power cable:
VDE-registered
UL AWM Style 21223
CSA AWM 1/II, A/B 1000 V 80° FT 1
Sensor leads: UL/CSA AWM Style 20236



Conductor stranding

Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6



Minimum bending radius

Power cable:
Fixed: 4 x D
Dynamic:
1.5 mm² - 16 mm²: 7.5 x D
25 mm² - 50 mm²: 10 x D
Signal cable:
Fixed: 4 x D
Dynamic: 8 x D



Nominal voltage

Signal cables: 30 V AC/DC
Power cable:
- Power cores:
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



Temperature range

Flexing: -20°C to +60°C
Fixed installation: -50°C to +80°C

Article number	Number of cores and mm² 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	54.0	85
00277111	4 x 2 x 0,34 + 4 x 0,5	6FX8008-1BD21	8.9	77.0	120
00277121	3 x (2 x 0,14) + 2 x (0,5)	6FX8008-1BD31	8.9	69.0	113
00277131	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5	6FX8008-1BD41	8.8	66.0	101
00277141	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5 + 4 x 0,22	6FX8008-1BD51	9.4	86.0	139
00277151	4 x 2 x 0,18	6FX8008-1BD61	6.4	34.2	53
00277161	2 x 2 x 0,18	6FX8008-1BD71	5.0	23.1	36
00277171	12 x 0,22	6FX8008-1BD81	6.9	48.0	76
00277992	2 x 2 x 0,15 + 1 x 2 x 0,38	6FX8008-2DC00	7.2	39.0	67
Motor cables					
0027784	4 G 1.5	6FX8008-1BB11-Plus	9.1	90.0	150
0027785	4 G 2.5	6FX8008-1BB21-Plus	10.6	132.0	220
0027786	4 G 4	6FX8008-1BB31-Plus	11.9	204.0	300
0027787	4 G 6	6FX8008-1BB41-Plus	14.5	315.0	450
0027788	4 G 10	6FX8008-1BB51-Plus	17.5	488.0	660
0027789	4 G 16	6FX8008-1BB61-Plus	21.6	769.0	1010
Servo cables					
0027790	4 G 1,5 + (2 x 1,5)	6FX8008-1BA11-Plus	11.6	146.0	230
0027791	4 G 2,5 + (2 x 1,5)	6FX8008-1BA21-Plus	13.4	187.0	300
0027792	4 G 4 + (2 x 1,5)	6FX8008-1BA31-Plus	14.8	258.0	380
0027793	4 G 6 + (2 x 1,5)	6FX8008-1BA41-Plus	16.8	365.0	530
0027794	4 G 10 + (2 x 1,5)	6FX8008-1BA51-Plus	19.4	560.0	765
0027795	4 G 16 + (2 x 1,5)	6FX8008-1BA61-Plus	23.1	816.0	1090
0027796	4 G 25 + (2 x 1,5)	6FX8008-1BA25-Plus	26.6	1,166.0	1530
0027797	4 G 35 + (2 x 1,5)	6FX8008-1BA35-Plus	30.9	1,554.0	2040
0027798	4 G 50 + (2 x 1,5)	6FX8008-1BA50-Plus	34.0	2,188.0	2760

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

Copper price basis: EUR 150/100kg. Refer to 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).

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

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 103

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

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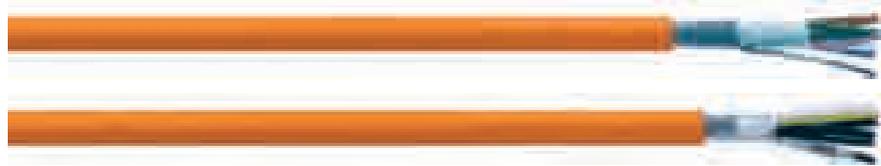
SERVO cables in acc. to INDRAMAT® Standard INK

Sensor leads for signal transmission systems and motor connection cables



Info

- Signal sensor/encoder cable
- Servo drives
- EMC-compliant



Benefits

- Multi-standard= fewer part varieties = cost savings
- Also suitable for mobile outdoor use

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and motor
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- Halogen-free

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains! Please comply with the assembly guidelines listed in Appendix T3.

Design

- In accordance with Indramat standard INK (also suitable for pre-assembled versions, IKS and IKG)
- Core insulation: TPE
- Refer to data sheet (available upon request) for more details
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Technical data



Approvals

Power cable:
UL style 20234
Signal cables:
UL Style 20236



Conductor stranding

Extra-fine wire according to IEC 60228 class 6



Minimum bending radius

Power cable:
Fixed installation: 4 x outer diameter
For flexible use: 7.5 x outer diameter
Signal cables:
Fixed installation: 5 x outer diameter
For flexible use: 10 x D



Nominal voltage

Power cable:
- Power cores:
600/1000 V (IEC)
1000 V (UL/CSA)
- Control cores:
250 V AC (IEC)
1000 V (UL/CSA)
Signalling cables: 300/300 V (IEC), 300 V (UL/CSA)



Test voltage

Control cores/signal cores: 500 V rms
Signal cables: 500 V rms



Temperature range

Fixed installation: -50°C to +80°C
Flexing: -30°C to +80°C

Article number	Number of cores and mm² per conductor	Reference article no.	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Feedback / encoder / resolver cables					
7072400	4 x 2 x 0,25 + 2 x 1,0	INK-0209	8.8	74.0	120
7072401	4 x 2 x 0,25 + 2 x 0,5	INK-0448	8.5	70.0	100
7072402	9 x 0,5	INK-0208	8.8	75.0	126
7072414	4 x 1,0 + 4 x 2 x 0,14 + 4 x 0,14	INK-0532	9.7	81.0	140
7072415	2 x (2 x 0,25) + 2 x 0,5	INK-0234	8.7	46.0	90
7072416	2 x 2 x 0,25 + 2 x 0,5	INK-0750	7.6	35.0	92
Servo cables					
7072417	4 G 0,75 + 2 x 0,5	INK-0670	10.0	73.0	132
7072403	4 G 1,0 + 2 x (2 x 0,75)	INK-0653	11.5	170.0	226
7072404	4 G 1,5 + 2 x (2 x 0,75)	INK-0650	12.2	189.0	268
7072405	4 G 2,5 + 2 x (2 x 1,0)	INK-0602	15.1	212.0	320
7072406	4 G 4 + (2 x 1,0) + (2 x 1,5)	INK-0603	16.0	306.0	470
7072407	4 G 6 + (2 x 1,0) + (2 x 1,5)	INK-0604	18.8	366.0	600
7072408	4 G 10 + (2 x 1,0) + (2 x 1,5)	INK-0605	22.0	565.0	850
7072409	4 G 16 + 2 x (2 x 1,5)	INK-0606	25.2	838.0	1020
7072410	4 G 25 + 2 x (2 x 1,5)	INK-0607	28.0	1,231.0	1420

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

Copper price basis: EUR 150/100kg. Refer to 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).

Indramat part designations (IKG, IKS, INK, INS, RKL and RKG) are registered trademarks of Bosch Rexroth 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 103

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Servo applications - power drive systems, approved

SERVO cables in acc. to LENZE® Standard

Sensor leads for signal transmission systems and motor connection cables



Info

- Signal sensor/encoder cable
- Servo drives
- EMC-compliant

Benefits

- Motor cables with low-capacitance
- Multi-standard= fewer part varieties = cost savings

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and motor
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Approvals



- Designed for power chain use: for travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Design according to LENZE® standard:
- Designs for fixed installation: PVC outer sheath, flame-retardant in accordance with IEC 332.1, UL/CSA-approved PVC core insulation.
- Designs for highly flexible use: oil-resistant PUR sheath in accordance with VDE472-803 Part B, flame-retardant in accordance with IEC 60332.1-2, TPE core insulation.
- Refer to data sheet (available upon request) for more details
- Signal cables: green (RAL 6018)
- Servomotor cables: orange (RAL 2003)

Technical data



Core identification code

Encoder cables
 - 7072508 (fixed installation)
 bk/ye+bk/gn+bk/rd+bk/bl + bk/wt
 - 7072517 (flexible installation)
 gn/ye+bl/rd+gy/pk+bk/vi + bn/wt
 Resolver cables:
 - 7072507 (fixed installation)
 black/yellow + black/green + black/red + black/white
 - 7072516 (flexible application)
 green/yellow + blue/red + grey/pink + brown/white



Approvals

Resolver and encoder cable:
 UL AWM Style 2464 for fixed installation versions, Style 21165 for highly flexible applications.
 Motor cable:
 UL AWM Style 2570 for fixed installation version; Style 20940 for high flexibility use.



Minimum bending radius

Flexible use: 10 x outer diameter
 Fixed installation: 7.5 x cable diameter



Nominal voltage

Resolver and encoder cable:
 30 V (VDE), 300 V (UL/CSA)
 Motor cable:
 - Power cores: 0.6/1000 V (VDE), 600 V (UL/CSA).



Test voltage

Resolver and encoder cable:
 1.5 kV
 Motor cable:
 - Power cores: 4 kV
 - Control cores: 2 kV



Temperature range

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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Motor cables for fixed installation				
7072500	4 G 1,0 + (2 x 0,5)	10.0	81.0	128
7072501	4 G 1,5 + (2 x 0,5)	11.2	106.0	173
7072502	4 G 2,5 + (2 x 0,5)	12.3	153.0	244
Resolver & encoder cables for fixed installation				
7072507	3 x (2 x 0,14) + 1 x (2 x 0,5)	9.3	43.0	91
7072508	4 x (2 x 0,14) + 1 x (2 x 1,0)	11.0	65.0	136
Motor cables for power chain application				
7072509	4 G 1,0 + (2 x 0,5)	10.0	81.0	151

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
7072510	4 G 1,5 + (2 x 0,5)	11.5	106.0	192
7072511	4 G 2,5 + (2 x 0,5)	13.2	153.0	271
7072512	4 G 4 + (2 x 1,0)	14.6	235.0	373
7072513	4 G 6 + (2 x 1,0)	16.8	316.0	477
7072514	4 G 10 + (2 x 1,0)	20.1	513.0	710
7072515	4 G 16 + (2 x 1,0)	23.8	710.0	1015
Resolver & encoder cable for power chain applications				
7072516	3 x (2 x 0,14) + 1 x (2 x 0,5)	10.0	44.0	107
7072517	4 x (2 x 0,14) + 1 x (2 x 1,0)	11.5	65.0	145

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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).

Lenze® part designations (EWLM_, EWLR_, EWLE_, EWLL_, EYL und EYP) are registered trademarks of Lenze® AG, and are listed for comparison purposes only. DESINA® is a registered trademark of the German Machine Tool Builders' Association.

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

Article numbers refer to genuine Lapp products.

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

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668

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Special Encoder and resolver cables

Compatible with various drive systems



Info

- Compatible with the encoder manufacturers listed below



Benefits

- Well-proven, reliable
- Multi-standard= fewer part varieties = cost savings

Application range

- Highly flexible encoder and resolver cables that are designed for use in power chains
- Servo drives and servo assemblies
- Plant engineering
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2 & CSA FT1

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Core insulation: refer to table
- Refer to data sheet (available upon request) for more details
- PUR outer sheath
- Outer sheath colour: see part table

Technical data



General

More technical information of the above-mentioned servo cables are available upon request.

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
Suitable for Heidenhain					
70388718	4 x 2 x 0,14 + 4 x 0,5	8.5	black	48.0	92
70388719	3 x (2 x 0,14) + 2 x (0,5)	8.3	black	64.0	100
70388720	3 x (2 x 0,14) + 2 x (1,0)	9.1	black	64.0	115
70388721	4 x 2 x 0,14 + 4 x 0,5 + (4 x 0,14)	8.3	black	56.0	102
Suitable for ELAU					
70388722	3 x 2 x 0,25 + 2 x 0,5	8.4	green	44.0	95
Suitable for KEB					
70388724	3 x (2 x 0,14) + 2 x (0,5)	8.1	orange	64.0	100
Suitable for Berger Lahr					
70388726	5 x 2 x 0,25 + 2 x 0,5	9.5	green	56.0	120
Suitable for B & R					
70388727	3 x 2 x 24AWG	6.5	green	28.0	60
70388728	5 x 2 x 0,14 + 2 x 0,5	7.8	green	40.0	80
Suitable for FANUC					
70388730	5 x 0,5 + 2 x 2 x 0,18	7.6	green	94.0	169
70388731	2 x 0,5 + 4 x 2 x 0,22	7.6	green	72.0	120
70388732	3 x 2 x 0,18 + 6 x 0,5	8.7	green	105.0	189
70388733	3 x 2 x 0,18 + 6 x 1,0	8.7	green	140.0	252
70388734	5 x 2 x 0,18 + 6 x 0,5	8.7	green	114.0	205
70388735	10 x 2 x 24 AWG	9.0	green	60.0	121

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

Copper price basis: EUR 150/100kg. Refer to 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).

The drive systems (Heidenhain, Elau, KEB, Controles Techniques, Berger Lahr, B & R, Fanuc) are registered trademarks that are listed for comparison purposes only. DESINA® is a registered trademark of the German Machine Tool Builders' Association.

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

Article numbers refer to genuine Lapp products.

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

Similar products

- ÖLFLEX® SERVO FD 770 CP refer to page 98
- ÖLFLEX® SERVO FD 770 CP DESINA® refer to page 99
- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 104
- SERVO cables in acc. to INDRAMAT® Standard INK refer to page 105

Accessories

- Circular connectors refer to page 597
- SKINDICHT® EMC/Earthing refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD CLASSIC 810

PVC-insulated, numbered, PVC sheath



Info

- Bestseller among the FD power chain cables
- Well-proven, reliable

Benefits

- Well-proven, reliable
- Cost-effective solution

Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Power circuits for electrical equipments used in automation engineering
- Assembly lines, production lines, in all kinds of machines
- Plant engineering

Product features

- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2
- In damp or wet interiors
- Designed for up to 5 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- PVC outer sheath, grey (RAL 7001)

Technical data



Core identification code
Black with white numbers acc. to VDE 0293



Based on
Core in accordance with VDE 0245/0281
Outer sheath in accordance with VDE 0245/0281



Specific insulation resistance
> 20 GOhm x cm



Conductor stranding
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6



Minimum bending radius
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter



Nominal voltage
U₀/U:
300/500 V



Test voltage
4000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Flexing: 0°C to +70°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026100	2 X 0.5	5.3	10.0	40
0026101	3 G 0.5	5.7	15.0	48
0026102	4 G 0.5	6.3	19.2	58
0026103	5 G 0.5	6.8	24.0	67
0026104	7 G 0.5	8.0	34.0	88
0026105	12 G 0.5	9.5	58.0	136
0026106	18 G 0.5	11.4	86.4	195
0026107	25 G 0.5	13.7	120.0	274
0026108	30 G 0.5	14.3	144.0	312
0026109	34 G 0.5	15.6	164.0	359
0026110	50 G 0.5	18.5	240.0	515
0026119	2 X 0.75	5.7	15.0	49
0026120	3 G 0.75	6.2	22.0	60
0026121	4 G 0.75	6.8	29.0	73
0026122	5 G 0.75	7.4	37.0	86
0026123	7 G 0.75	8.9	51.0	117
0026124	12 G 0.75	10.6	87.0	181
0026125	16 G 0.75	12.0	116.0	234
0026126	18 G 0.75	12.7	130.0	259
0026127	25 G 0.75	15.2	181.0	363
0026130	2 X 1.0	6.1	19.0	58
0026131	3 G 1.0	6.6	29.0	72
0026132	4 G 1.0	7.3	39.0	88
0026133	5 G 1.0	8.0	48.0	104
0026134	7 G 1.0	9.6	67.0	142
0026135	12 G 1.0	11.4	115.0	221
0026136	14 G 1.0	12.3	134.4	258
0026137	16 G 1.0	13.0	153.0	287
0026138	18 G 1.0	13.9	173.0	324
0026139	25 G 1.0	16.4	240.0	445
0026140	26 G 1.0	16.4	249.6	459
0026141	34 G 1.0	18.9	326.4	595

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026142	41 G 1.0	20.6	394.0	712
0026143	50 G 1.0	22.3	480.0	854
0026144	65 G 1.0	25.4	624.0	1097
0026149	2 X 1.5	6.8	29.0	74
0026150	3 G 1.5	7.4	43.2	93
0026151	4 G 1.5	8.1	58.0	114
0026152	5 G 1.5	9.1	72.0	139
0026153	7 G 1.5	10.9	101.0	189
0026154	12 G 1.5	12.9	173.0	295
0026156	18 G 1.5	15.6	259.0	429
0026157	25 G 1.5	18.6	360.0	597
0026158	26 G 1.5	18.6	374.4	615
0026159	34 G 1.5	21.1	489.6	783
0026160	41 G 1.5	23.0	613.0	936
0026161	42 G 1.5	23.0	629.0	954
0026162	50 G 1.5	25.0	720.0	1134
0026170	3 G 2.5	9.0	72.0	145
0026171	4 G 2.5	10.0	96.0	179
0026172	5 G 2.5	11.2	120.0	218
0026173	7 G 2.5	13.6	168.0	303
0026174	12 G 2.5	16.0	288.0	473
0026175	14 G 2.5	17.2	336.0	548
0026180	3 G 4	10.6	120.0	214
0026181	4 G 4	11.7	160.0	266
0026182	5 G 4	13.1	200.0	325
0026183	4 G 6	13.9	223.0	396
0026184	5 G 6	15.5	288.0	484
0026185	4 G 10	17.6	384.0	644
0026186	5 G 10	19.6	480.0	785
0026187	4 G 16	21.0	615.0	922
0026188	5 G 16	23.6	768.0	1133

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 891 refer to page 125
- ÖLFLEX® CHAIN 809 refer to page 123

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD CLASSIC 810 CY

Screened, PVC-insulated, numbered, PVC inner and outer sheath



Info

- Bestseller among the FD power chain cables
- Well-proven, reliable
- EMC-compliant

Benefits

- Well-proven, reliable
- Cost-effective solution

Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Power circuits for electrical equipments used in automation engineering
- Assembly lines, production lines, in all kinds of machines
- Plant engineering

Product features

- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2
- In damp or wet interiors
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- PVC inner sheath, grey
- Tinned-copper braiding
- Non-woven wrapping
- PVC outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
Core in accordance with VDE 0245/0281
Outer sheath in accordance with VDE 0245/0281
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: 0°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026200	2 X 0.5	6.9	33.0	74
0026201	3 G 0.5	7.3	39.0	84
0026202	4 G 0.5	7.9	46.0	98
0026203	5 G 0.5	8.4	54.0	110
0026204	7 G 0.5	9.8	70.0	143
0026205	12 G 0.5	11.3	100.0	201
0026206	18 G 0.5	13.4	153.0	287
0026207	25 G 0.5	15.9	202.0	394
0026208	30 G 0.5	16.5	228.0	432
0026219	2 X 0.75	7.3	39.0	85
0026220	3 G 0.75	7.8	48.0	99
0026221	4 G 0.75	8.4	59.0	116
0026222	5 G 0.75	9.0	69.0	133
0026223	7 G 0.75	10.7	90.0	178
0026224	12 G 0.75	12.4	129.0	253
0026226	18 G 0.75	14.9	205.0	368
0026227	25 G 0.75	17.4	271.0	496
0026229	30 G 0.75	18.0	320.0	549
0026230	2 X 1.0	7.7	46.0	97
0026231	3 G 1.0	8.2	57.0	114
0026232	4 G 1.0	8.9	70.0	134
0026233	5 G 1.0	9.8	81.0	159
0026234	7 G 1.0	11.4	110.0	207
0026235	12 G 1.0	13.4	182.0	314
0026238	18 G 1.0	16.1	254.0	443

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026239	25 G 1.0	18.8	365.0	612
0026240	26 G 1.0	18.8	374.0	625
0026241	34 G 1.0	21.5	463.0	787
0026242	41 G 1.0	23.2	542.0	918
0026243	50 G 1.0	25.3	640.0	1120
0026249	2 X 1.5	8.4	58.0	117
0026250	3 G 1.5	9.0	75.0	139
0026251	4 G 1.5	9.9	91.0	169
0026252	5 G 1.5	10.9	112.0	201
0026253	7 G 1.5	12.7	145.0	262
0026254	12 G 1.5	15.1	247.0	404
0026255	16 G 1.5	16.8	314.0	503
0026256	18 G 1.5	17.8	348.0	560
0026257	25 G 1.5	21.2	498.0	793
0026259	34 G 1.5	23.9	700.0	1005
0026270	3 G 2.5	10.8	119.0	207
0026271	4 G 2.5	11.8	161.0	247
0026272	5 G 2.5	13.2	194.0	307
0026273	7 G 2.5	15.8	262.0	418
0026281	4 G 4	13.7	238.0	360
0026282	5 G 4	15.3	280.0	436
0026283	4 G 6	16.1	318.0	514
0026285	4 G 10	20.2	521.0	824
0026287	4 G 16	23.6	780.0	1207

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 815 CY refer to page 110
- ÖLFLEX® CHAIN 809 CY refer to page 124

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

New

ÖLFLEX® CHAIN 815 CY

Screened, PVC-insulated, numbered, PVC sheath



Info

- Addition to the ÖLFLEX® FD CLASSIC 810 CY series
- EMC-compliant

Benefits

- Cost-effective solution
- Compact design

Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- Plant engineering

Product features

- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2
- In damp or wet interiors
- Designed for continuous movements in power chains
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PVC outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
300/500 V
- Test voltage**
Core/core: 4000 V
Core/screen: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: 0°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026801	2 X 0.5	5.9	31.0	58
1026803	3 G 0.5	6.3	38.0	70
1026805	4 G 0.5	6.9	44.0	85
1026807	5 G 0.5	7.4	52.0	98
1026808	7 G 0.5	8.8	68.0	148
1026809	12 G 0.5	10.3	96.0	191
1026812	2 X 0.75	6.3	38.0	69
1026814	3 G 0.75	6.8	46.0	82
1026815	4 G 0.75	7.4	57.0	113
1026816	5 G 0.75	8.0	66.0	130
1026817	7 G 0.75	9.5	87.0	168
1026818	12 G 0.75	11.2	124.0	243
1026821	2 X 1.0	6.7	44.0	78
1026823	3 G 1.0	7.2	55.0	97
1026825	4 G 1.0	7.9	68.0	121

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026826	5 G 1.0	8.8	77.0	147
1026827	7 G 1.0	10.4	102.0	194
1026828	12 G 1.0	12.2	178.0	289
1026831	2 X 1.5	7.4	55.0	94
1026833	3 G 1.5	8.0	71.0	131
1026835	4 G 1.5	8.9	87.0	169
1026836	5 G 1.5	9.7	106.0	199
1026837	7 G 1.5	11.5	138.0	259
1026838	12 G 1.5	13.9	238.0	395
1026841	2 X 2.5	8.9	80.0	144
1026842	3 G 2.5	9.6	113.0	191
1026843	4 G 2.5	10.8	156.0	235
1026844	5 G 2.5	12.0	189.0	289
1026845	7 G 2.5	14.4	255.0	408

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD CLASSIC 810 CY refer to page 109
- ÖLFLEX® CHAIN 809 CY refer to page 124

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

New

ÖLFLEX® CHAIN 808 P
PVC-insulated, numbered, PUR sheath



Info

- Basic Line for light & ordinary duty in power chain applications



Benefits

- Good combination of quality and price
- Compact design

Application range

- Assembly lines, production lines, in all kinds of machines
- In dry, damp or wet interiors
- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Suitable for use in measuring, control and regulating circuits

Product features

- Low-adhesive surface
- Oil-resistant
- Designed for 1...2 million bending/unbending cycles in the power chain

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 22.10 (VDE 0282 Part 10)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
For flexible applications:
Chains in self supporting non-gliding arrangements: 10 x outside diameter
Chains in gliding arrangements: 12 x outside diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U0/U: 300/500 V
- Test voltage**
Core/core: 4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1027700	2 X 0.5	5.2	10.0	40
1027701	3 G 0.5	5.5	15.0	48
1027702	4 G 0.5	6.0	20.0	58
1027703	5 G 0.5	6.5	24.0	67
1027704	7 G 0.5	7.7	34.0	88
1027705	12 G 0.5	9.2	58.0	136
1027706	18 G 0.5	11.0	87.0	195
1027707	25 G 0.5	13.3	120.0	274
1027708	2 X 0.75	5.6	15.0	49
1027709	3 G 0.75	6.0	22.0	60
1027710	4 G 0.75	6.5	29.0	73
1027711	5 G 0.75	7.1	37.0	86
1027712	7 G 0.75	8.5	51.0	117
1027713	12 G 0.75	10.3	87.0	181
1027714	18 G 0.75	12.2	130.0	259
1027715	25 G 0.75	14.8	181.0	363
1027716	2 X 1.0	5.9	19.0	58
1027717	3 G 1.0	6.3	29.0	72

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1027718	4 G 1.0	6.9	39.0	88
1027719	5 G 1.0	7.5	48.0	104
1027720	7 G 1.0	9.0	67.0	142
1027721	12 G 1.0	10.9	115.0	221
1027722	18 G 1.0	13.2	173.0	324
1027723	25 G 1.0	15.7	240.0	445
1027724	2 X 1.5	6.5	29.0	74
1027725	3 G 1.5	6.9	43.2	93
1027726	4 G 1.5	7.6	58.0	114
1027727	5 G 1.5	8.5	72.0	139
1027728	7 G 1.5	10.3	101.0	189
1027729	12 G 1.5	12.3	173.0	295
1027730	18 G 1.5	14.9	259.0	429
1027731	25 G 1.5	17.9	360.0	597
1027732	3 G 2.5	8.4	72.0	145
1027733	4 G 2.5	9.3	96.0	179
1027734	7 G 2.5	12.7	120.0	218
1027737	4 G 4	11.1	160.0	266

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD CLASSIC 810 P refer to page 113
- ÖLFLEX® FD 855 P refer to page 116
- ÖLFLEX® FD 891 P refer to page 125

Accessories

- Protective Cable Conduit Systems and Cable Carrier Systems refer to page 758

New

ÖLFLEX® CHAIN 808 CP

Screened, PVC-insulated, numbered, PUR sheath



Info

- Basic Line for light & ordinary duty in power chain applications

Benefits

- Good combination of quality and price
- Compact design
- Various applications

Application range

- In power chains or moving machine parts
- In EMC-sensitive environments
- Particularly in wet areas of machine tools and transfer lines
- Suitable for use in measuring, control and regulating circuits
- In dry, damp or wet interiors

Product features

- Low-adhesive surface
- Oil-resistant
- Designed for 1...2 million bending/unbending cycles in the power chain

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- Tinned-copper braiding
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data



Core identification code
Black with white numbers acc. to VDE 0293



Based on
HD 22.10 (VDE 0282 Part 10)



Specific insulation resistance
> 20 GOhm x cm



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



Minimum bending radius
For flexible applications:
Chains in self supporting non-gliding arrangements: 10 x outside diameter
Chains in gliding arrangements: 12 x outside diameter



Nominal voltage
U₀/U: 300/500 V



Test voltage
Core/core: 4000 V
Core/screen: 2000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1027751	2 X 0.5	5.8	36.0	45
1027752	3 G 0.5	6.1	43.0	59
1027753	4 G 0.5	6.6	49.0	83
1027754	5 G 0.5	7.1	57.0	96
1027755	7 G 0.5	8.5	69.0	136
1027756	12 G 0.5	10.0	104.0	200
1027757	18 G 0.5	11.8	141.0	275
1027758	25 G 0.5	14.1	211.0	350
1027759	2 X 0.75	6.2	43.0	56
1027760	3 G 0.75	6.6	52.0	70
1027761	4 G 0.75	7.1	61.0	95
1027762	5 G 0.75	7.7	72.0	130
1027763	7 G 0.75	9.1	89.0	168
1027764	12 G 0.75	10.9	138.0	232
1027765	18 G 0.75	13.0	211.0	315
1027766	25 G 0.75	15.6	280.0	435
1027767	2 X 1.0	6.5	51.0	84
1027768	3 G 1.0	6.9	62.0	110

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1027769	4 G 1.0	7.5	74.0	130
1027770	5 G 1.0	8.3	88.0	156
1027771	7 G 1.0	9.8	112.0	192
1027772	12 G 1.0	11.7	185.0	285
1027773	18 G 1.0	14.0	268.0	395
1027774	25 G 1.0	16.7	354.0	656
1027775	2 X 1.5	7.1	65.0	97
1027776	3 G 1.5	7.5	82.0	125
1027777	4 G 1.5	8.4	100.0	165
1027778	5 G 1.5	9.1	119.0	193
1027779	7 G 1.5	10.9	154.0	245
1027780	12 G 1.5	13.3	268.0	365
1027781	18 G 1.5	15.7	373.0	553
1027782	25 G 1.5	18.7	530.0	734
1027783	3 G 2.5	9.0	118.0	188
1027784	4 G 2.5	10.1	147.0	236
1027785	7 G 2.5	13.5	253.0	340
1027788	4 G 4	11.9	248.0	305

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD CLASSIC 810 CP refer to page 114
- ÖLFLEX® CHAIN 815 CP refer to page 115
- ÖLFLEX® FD 855 CP refer to page 116
- ÖLFLEX® FD 891 CP refer to page 130

Accessories

- Protective Cable Conduit Systems and Cable Carrier Systems refer to page 758
- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® FD CLASSIC 810 P

PVC-insulated, numbered, PUR sheath



Info

- Abrasion and cut-resistant



Benefits

- Well-proven, reliable
- Various applications

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Suitable for use in measuring, control and regulating circuits
- Power circuits for electrical equipments used in automation engineering

Product features

- Low-adhesive surface
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in short lay lengths
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
Cores according to VDE 0245/0281
Outer sheath in accordance with VDE 0245/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
U₀/U:
300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026300	2 X 0.5	5.3	10.0	36
0026301	3 G 0.5	5.7	15.0	44
0026302	4 G 0.5	6.3	19.0	53
0026303	5 G 0.5	6.8	24.0	62
0026304	7 G 0.5	8.0	34.0	82
0026305	12 G 0.5	9.5	58.0	129
0026306	18 G 0.5	11.4	86.4	185
0026319	2 X 0.75	5.7	15.0	44
0026320	3 G 0.75	6.2	22.0	55
0026321	4 G 0.75	6.8	29.0	67
0026322	5 G 0.75	7.4	37.0	80
0026323	7 G 0.75	8.9	51.0	109
0026324	12 G 0.75	10.6	87.0	172
0026326	18 G 0.75	12.7	130.0	247
0026327	25 G 0.75	15.2	181.0	346
0026330	2 X 1.0	6.1	20.0	52
0026331	3 G 1.0	6.6	29.0	66
0026332	4 G 1.0	7.3	39.0	82
0026333	5 G 1.0	8.0	48.0	97
0026334	7 G 1.0	9.6	67.0	117
0026335	12 G 1.0	11.4	115.0	211
0026338	18 G 1.0	13.9	173.0	310
0026339	25 G 1.0	16.4	240.0	426
0026341	34 G 1.0	18.9	326.4	571
0026342	41 G 1.0	20.6	394.0	684
0026343	50 G 1.0	22.3	480.0	822
0026344	65 G 1.0	25.4	624.0	1058

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026349	2 X 1.5	6.8	29.0	68
0026350	3 G 1.5	7.4	43.2	86
0026351	4 G 1.5	8.1	58.0	106
0026352	5 G 1.5	9.1	72.0	131
0026353	7 G 1.5	10.9	101.0	178
0026354	12 G 1.5	12.9	173.0	281
0026355	16 G 1.5	14.6	230.0	365
0026356	18 G 1.5	15.6	259.0	411
0026357	25 G 1.5	18.6	360.0	571
0026359	34 G 1.5	21.1	489.6	753
0026361	42 G 1.5	23.0	629.0	919
0026362	50 G 1.5	25.0	720.0	1093
0026370	3 G 2.5	9.0	72.0	135
0026371	4 G 2.5	10.0	96.0	168
0026372	5 G 2.5	11.2	120.0	206
0026373	7 G 2.5	13.6	168.0	286
0026374	12 G 2.5	16.0	288.0	453
0026375	14 G 2.5	17.2	336.0	525
0026381	4 G 4	11.7	160.0	252
0026382	5 G 4	13.1	200.0	309
0029200	1 G 6	6.4	60.0	84
0026383	4 G 6	13.9	230.0	377
0029210	1 G 10	7.7	100.0	141
0026385	4 G 10	17.6	384.0	614
0026386	5 G 10	19.6	480.0	751
0029220	1 G 16	9.2	160.0	198
0026387	4 G 16	21.0	615.0	851

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 808 P refer to page 111
- ÖLFLEX® FD 855 P refer to page 116
- ÖLFLEX® FD 891 P refer to page 125

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD CLASSIC 810 CP

Screened, PVC-insulated, numbered, PVC inner and PUR outer sheath



Info

- Abrasion and cut-resistant
- EMC-compliant

Benefits

- Well-proven, reliable
- Various applications

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Suitable for use in measuring, control and regulating circuits
- Power circuits for electrical equipments used in automation engineering

Product features

- Low-adhesive surface
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in short lay lengths
- Non-woven wrapping
- PVC inner sheath
- Tinned-copper braiding
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
Cores according to VDE 0245/0281
Outer sheath in accordance with VDE 0245/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
U₀/U:
300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +70°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)
0026400	2 X 0.5	6.9	33.0	70
0026401	3 G 0.5	7.3	39.0	80
0026402	4 G 0.5	7.9	46.0	94
0026403	5 G 0.5	8.4	54.0	106
0026404	7 G 0.5	9.8	70.0	138
0026405	12 G 0.5	11.3	100.0	194
0026419	2 X 0.75	7.3	39.0	81
0026420	3 G 0.75	7.8	48.0	95
0026421	4 G 0.75	8.4	59.0	111
0026422	5 G 0.75	9.0	69.0	128
0026423	7 G 0.75	10.7	90.0	171
0026424	12 G 0.75	12.4	129.0	244
0026425	16 G 0.75	14.2	186.0	328
0026426	18 G 0.75	14.9	205.0	356
0026427	25 G 0.75	17.4	271.0	479
0026430	2 X 1.0	7.7	46.0	93
0026431	3 G 1.0	8.2	57.0	109
0026432	4 G 1.0	8.9	70.0	129
0026433	5 G 1.0	9.8	81.0	154
0026434	7 G 1.0	11.4	110.0	200
0026435	12 G 1.0	13.4	182.0	304

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026438	18 G 1.0	16.1	254.0	429
0026439	25 G 1.0	18.8	365.0	593
0026449	2 X 1.5	8.4	58.0	112
0026450	3 G 1.5	9.0	75.0	133
0026451	4 G 1.5	9.9	91.0	163
0026452	5 G 1.5	10.9	112.0	193
0026453	7 G 1.5	12.7	145.0	252
0026454	12 G 1.5	15.1	247.0	391
0026456	18 G 1.5	17.8	348.0	542
0026457	25 G 1.5	21.2	498.0	767
0026470	3 G 2.5	10.8	119.0	199
0026471	4 G 2.5	11.8	161.0	238
0026472	5 G 2.5	13.2	194.0	297
0026473	7 G 2.5	15.8	262.0	403
0026474	12 G 2.5	18.2	410.0	589
0026475	14 G 2.5	19.8	490.0	702
0026481	4 G 4	13.7	238.0	349
0026483	4 G 6	16.1	318.0	499
0026484	5 G 6	17.7	410.0	596
0026485	4 G 10	20.2	521.0	842
0026487	4 G 16	23.6	780.0	1173

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 815 CP refer to page 115
- ÖLFLEX® CHAIN 868 CP refer to page 112
- ÖLFLEX® FD 855 CP refer to page 116
- ÖLFLEX® FD 891 CP refer to page 130

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669
- SILVYN® CHAIN cable protection and guiding systems

New

ÖLFLEX® CHAIN 815 CP
Screened, PVC-insulated, numbered, PUR sheath



Info

- Abrasion and cut-resistant
- EMC-compliant
- Addition to the ÖLFLEX® FD CLASSIC 810 CP series

Benefits

- Cost-effective solution
- Compact design
- Various applications

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Suitable for use in measuring, control and regulating circuits

Product features

- Low-adhesive surface
- Oil-resistant
- Flame-retardant according to IEC 60332.1.2
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for continuous movements in power chains

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
HD 21.13 S1; VDE 0281 Part 13
HD 22.10 (VDE 0282 Part 10)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
U₀/U:
300/500 V
- Test voltage**
Core/core: 4000 V
Core/screen: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026854	5 G 0.5	7.4	52.0	94
1026855	7 G 0.5	8.8	68.0	144
1026856	12 G 0.5	10.3	96.0	185
1026857	18 G 0.5	12.2	148.0	257
1026858	25 G 0.5	14.5	195.0	365
1026861	4 G 0.75	7.4	57.0	114
1026862	5 G 0.75	8.0	66.0	126
1026863	7 G 0.75	9.5	87.0	165
1026864	12 G 0.75	11.2	124.0	230
1026865	18 G 0.75	13.7	199.0	349
1026866	25 G 0.75	16.0	265.0	456
1026869	4 G 1.0	7.9	68.0	117
1026870	5 G 1.0	8.8	77.0	142
1026871	7 G 1.0	10.4	102.0	188
1026872	12 G 1.0	12.2	178.0	281

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026873	18 G 1.0	14.7	249.0	420
1026874	25 G 1.0	17.4	361.0	559
1026876	3 G 1.5	8.0	71.0	127
1026877	4 G 1.5	8.9	87.0	164
1026878	5 G 1.5	9.7	106.0	193
1026879	7 G 1.5	11.5	138.0	252
1026880	12 G 1.5	13.9	238.0	386
1026881	18 G 1.5	16.4	341.0	543
1026882	25 G 1.5	19.6	485.0	760
1026883	2 X 2.5	8.9	80.0	139
1026884	3 G 2.5	9.6	113.0	186
1026885	4 G 2.5	10.8	156.0	229
1026886	5 G 2.5	12.0	189.0	281
1026887	7 G 2.5	14.4	255.0	398

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

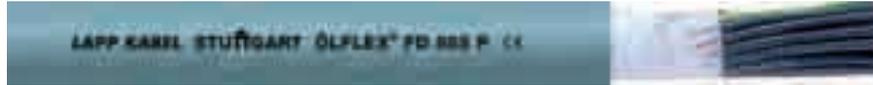
- ÖLFLEX® CHAIN 808 CP refer to page 112
- ÖLFLEX® FD CLASSIC 810 CP refer to page 114
- ÖLFLEX® FD 855 CP refer to page 116
- ÖLFLEX® FD 891 CP refer to page 130

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD 855 P

TPE-insulated, numbered, PUR sheath



Info

- MUD res. according to IEC61892-4 Annex D
- Flexible down to -40°C
- Smallest bending radii of all FD cables

Benefits

- Well-proven, reliable
- Various applications
- Suitable for all weather conditions

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Construction machinery
- Assembly lines, production lines, in all kinds of machines

Product features

- Low-adhesive surface
- Oil-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores twisted together in extremely short lay lengths
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 5 x outer diameter
Fixed installation: 3 x outer diameter
- Nominal voltage**
300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C
During installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027530	2 X 0.5	5.1	10.0	34
0027531	3 G 0.5	5.5	14.0	40
0027532	5 G 0.5	6.6	24.0	55
0027533	6 G 0.5	7.1	29.0	63
0027534	7 G 0.5	7.7	34.0	76
0027535	12 G 0.5	9.1	58.0	114
0027536	18 G 0.5	10.9	86.0	165
0027537	20 G 0.5	11.5	96.0	180
0027538	25 G 0.5	13.4	120.0	219
0027540	30 G 0.5	13.6	144.0	251
0027541	36 G 0.5	14.7	173.0	290
0027545	2 X 0.75	5.6	14.0	42
0027546	3 G 0.75	6.0	22.0	50
0027547	4 G 0.75	6.7	29.0	60
0027548	5 G 0.75	7.3	36.0	71
0027549	7 G 0.75	8.8	50.0	99
0027550	12 G 0.75	10.3	86.0	158
0027551	18 G 0.75	12.4	130.0	219
0027552	20 G 0.75	13.3	144.0	240
0027553	25 G 0.75	15.5	180.0	309
0027555	36 G 0.75	16.9	259.0	411
0027560	2 X 1.0	6.0	19.0	50
0027561	3 G 1.0	6.5	29.0	61
0027562	4 G 1.0	7.2	38.0	70
0027563	5 G 1.0	7.8	48.0	93

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027564	7 G 1.0	9.5	67.0	122
0027565	12 G 1.0	11.2	115.0	196
0027566	18 G 1.0	13.7	173.0	274
0027567	20 G 1.0	14.4	192.0	300
0027568	25 G 1.0	16.8	240.0	385
0027570	30 G 1.0	17.0	288.0	444
0027571	36 G 1.0	18.6	346.0	516
0027575	2 X 1.5	6.7	29.0	68
0027576	3 G 1.5	7.3	43.0	83
0027586	4 G 1.5	8.0	58.0	100
0027577	5 G 1.5	9.0	72.0	128
0027578	7 G 1.5	10.7	101.0	177
0027579	12 G 1.5	12.7	173.0	275
0027580	18 G 1.5	15.2	259.0	405
0027582	25 G 1.5	18.8	360.0	565
0027584	30 G 1.5	18.8	432.0	652
0027585	36 G 1.5	20.6	518.0	759
0027587	41 G 1.5	22.4	614.0	978
0027370	3 G 2.5	8.9	72.0	121
0027371	4 G 2.5	9.9	96.0	163
0027372	5 G 2.5	11.0	120.0	196
0027373	7 G 2.5	13.4	168.0	266
0027374	12 G 2.5	15.8	288.0	446
0027375	18 G 2.5	18.9	432.0	665
0027376	25 G 2.5	23.5	600.0	929

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST refer to page 119

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX®
 UNITRONIC®
 ETHERLINE®
 HITRONIC®
 EPIC®
 SKINTOP®
 SILVYN®
 FLEXIMARK®
 ACCESSORIES
 APPENDIX

ÖLFLEX® FD 855 CP

Screened, TPE-insulated, numbered, TPE inner sheath, PUR outer sheath



Info

- MUD res. according to IEC61892-4 Annex D
- Flexible down to -40°C
- EMC-optimised

Benefits

- Well-proven, reliable
- Various applications
- Suitable for all weather conditions

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Construction machinery
- Assembly lines, production lines, in all kinds of machines

Product features

- Low-adhesive surface
- Oil-resistant
- Halogen-free and flame-retardant (IEC 60332.1.2)
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores twisted together in extremely short lay lengths
- Non-woven wrapping
- Inner sheath made of TPE
- Tinned-copper braiding
- PUR outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C
During installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027605	2 X 0.5	6.7	32.0	67
0027606	3 G 0.5	7.1	40.0	79
0027607	5 G 0.5	8.2	53.0	107
0027608	6 G 0.5	8.7	59.0	121
0027609	7 G 0.5	9.5	67.0	132
0027610	12 G 0.5	10.9	97.0	190
0027611	18 G 0.5	12.9	131.0	245
0027612	20 G 0.5	13.5	156.0	281
0027613	25 G 0.5	15.6	190.0	367
0027615	30 G 0.5	15.8	222.0	408
0027616	36 G 0.5	16.9	251.0	459
0027620	2 X 0.75	7.2	40.0	79
0027621	3 G 0.75	7.6	47.0	96
0027622	4 G 0.75	8.3	58.0	112
0027623	5 G 0.75	8.9	65.0	126
0027624	7 G 0.75	10.6	85.0	165
0027625	12 G 0.75	12.1	127.0	231
0027626	18 G 0.75	14.6	198.0	330
0027628	25 G 0.75	17.7	259.0	459
0027630	36 G 0.75	19.5	348.0	605
0027635	2 X 1.0	7.6	45.0	93
0027636	3 G 1.0	8.1	55.0	109
0027637	4 G 1.0	8.8	68.0	126

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027638	5 G 1.0	9.6	81.0	147
0027639	7 G 1.0	11.3	106.0	196
0027640	12 G 1.0	13.2	175.0	292
0027641	18 G 1.0	15.9	242.0	418
0027643	25 G 1.0	19.5	329.0	575
0027645	30 G 1.0	19.6	377.0	635
0027646	36 G 1.0	21.2	467.0	758
0027649	2 X 1.5	8.3	58.0	115
0027650	3 G 1.5	8.9	76.0	139
0027661	4 G 1.5	9.8	91.0	156
0027651	5 G 1.5	10.8	111.0	198
0027652	7 G 1.5	12.5	145.0	254
0027653	12 G 1.5	14.9	242.0	416
0027654	18 G 1.5	17.4	346.0	564
0027656	25 G 1.5	21.4	486.0	811
0027659	36 G 1.5	23.4	655.0	1066
0027380	3 G 2.5	10.7	110.0	194
0027381	4 G 2.5	11.7	136.0	234
0027382	5 G 2.5	12.8	180.0	293
0027383	7 G 2.5	15.6	246.0	418
0027384	12 G 2.5	18.0	377.0	629
0027385	18 G 2.5	21.5	569.0	912
0027386	25 G 2.5	26.5	765.0	1266

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® PETRO FD 865 CP refer to page 118
- ÖLFLEX® FD ROBUST C refer to page 120

Accessories

- SILVYN® CHAIN cable protection and guiding systems

New

ÖLFLEX® PETRO FD 865 CP

Oil and drilling fluid (mud) resistant control cables for highly flexible outdoor applications



Info

- Resistant to oil and drilling fluids acc. to NEK TS 606:2009 (Oil & Mud)
- Flexible down to -50°C
- Halogen-free

Benefits

- Suitable for long horizontal drag chain travel distances
- Reduced outer diameters enable space and weight saving installation
- Suitable for contact with oil- and ester-based drilling muds as well as calcium bromide solutions usually used on drilling rigs
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Copper braiding screens the cable against electromagnetic interference

Application range

- Permanently moved power chains or machine parts in harsh environment
- Onshore and offshore applications such as drilling rigs and drillships
- In wet areas within machinery and production or assembly lines

Product features

- Good notch and abrasion resistance
- Good weather, ozone, UV and oil resistance
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Resistant to hydrolysis and microbes

Approvals



- Resistant against oil and drilling fluids according NEK TS 606:2009 and IEC 61892-4
- Salt water-resistant according to UL 1309
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper
- Core insulation: TPE
- Cores twisted in short lay lengths
- Non-woven wrapping
- Inner sheath made of TPE
- Tinned copper screen braiding
- Outer sheath made of robust special polymer
Colour: black

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -50°C to +80°C
Fixed installation: -60°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0023300	2 X 0.5	6.7	32.0	67
0023301	3 G 0.5	7.1	40.0	79
0023302	4 G 0.5	7.6	47.0	84
0023303	5 G 0.5	8.2	53.0	107
0023304	7 G 0.5	9.5	67.0	132
0023305	12 G 0.5	10.9	97.0	190
0023306	18 G 0.5	12.9	131.0	245
0023307	20 G 0.5	13.5	156.0	281
0023308	25 G 0.5	15.6	190.0	367
0023309	30 G 0.5	15.8	222.0	408
0023310	36 G 0.5	16.9	251.0	459
0023311	2 X 0.75	7.2	40.0	79
0023312	3 G 0.75	7.6	47.0	96
0023313	4 G 0.75	8.3	58.0	112
0023314	5 G 0.75	8.9	65.0	126
0023315	7 G 0.75	10.6	85.0	165
0023316	12 G 0.75	12.1	127.0	231
0023317	18 G 0.75	14.6	198.0	330
0023318	20 G 0.75	15.5	213.0	354
0023319	25 G 0.75	17.7	259.0	459
0023320	30 G 0.75	17.7	296.0	480
0023321	36 G 0.75	19.5	348.0	605
0023322	2 X 1.0	7.6	45.0	93
0023323	3 G 1.0	8.1	55.0	109
0023324	4 G 1.0	8.8	68.0	126
0023325	5 G 1.0	9.6	81.0	147
0023326	7 G 1.0	11.3	106.0	196
0023327	12 G 1.0	13.2	175.0	292
0023328	18 G 1.0	15.9	242.0	418
0023329	20 G 1.0	16.6	269.0	427

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0023330	25 G 1.0	19.2	329.0	575
0023331	30 G 1.0	19.6	377.0	635
0023332	36 G 1.0	21.2	467.0	758
0023333	2 X 1.5	8.3	58.0	115
0023334	3 G 1.5	8.9	76.0	139
0023335	4 G 1.5	9.8	91.0	156
0023336	5 G 1.5	10.8	111.0	198
0023337	7 G 1.5	12.5	145.0	254
0023338	12 G 1.5	14.9	242.0	416
0023339	18 G 1.5	17.4	346.0	564
0023340	20 G 1.5	18.3	377.0	562
0023341	25 G 1.5	21.4	486.0	811
0023342	30 G 1.5	21.4	568.0	821
0023343	36 G 1.5	23.4	655.0	1066
0023344	2 X 2.5	9.8	73.0	129
0023345	3 G 2.5	10.7	110.0	194
0023346	4 G 2.5	11.7	136.0	234
0023347	5 G 2.5	12.8	180.0	293
0023348	7 G 2.5	15.6	246.0	418
0023349	12 G 2.5	18.0	377.0	629
0023350	18 G 2.5	21.5	569.0	912
0023351	20 G 2.5	22.7	582.0	850
0023352	25 G 2.5	26.5	765.0	1266
0023353	4 G 4	13.9	205.0	311
0023354	5 G 4	15.4	250.0	381
0023355	4 G 6	16.2	289.0	423
0023356	5 G 6	17.8	354.0	512
0023357	4 G 10	20.4	475.0	672
0023358	5 G 10	22.3	582.0	814

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® PETRO C HFFR refer to page 61

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® FD ROBUST

TPE-insulated, numbered, TPE sheath



Info

- Excellent weather resistance
- High chemical resistance
- Temperature range: -40°C to +105°C



Benefits

- Well-proven, reliable
- Various applications
- Suitable for all weather conditions
- For indoor and outdoor use

Application range

- In power chains or moving machine parts
- Machine tool building, medical technology, laundries, car washing equipment, chemical industry, composting plants, sewage works
- Food and beverage industry, especially for production and processing equipment of milk and meat products
- Particularly in wet areas of machine tools and transfer lines
- Resistant to contact with plant, animal or synthetic-based organic oils, greases, waxes and the related emulsions

Product features

- Low-adhesive surface
- Highly resistant to oil and chemicals
- Hydrolysis-resistant to warm and hot water
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire, tinned copper strands
- Core insulation: TPE
- Cores twisted together in extremely short lay lengths
- Non-woven wrapping
- Robust outer sheath made of special halogen-free TPE, black (RAL 9005)

Technical data

- Core identification code**
Black cores with printed white numbers (VDE 0293)
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use:
7.5 x cable diameter
(at temperatures < 70 °C)
10 x cable diameter
(at a max. temperature of 105 °C)
Fixed installation:
4 x outer diameter
- Nominal voltage**
U₀/U:
300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40 °C to +105 °C
Fixed installation: -50 °C to +110 °C
Short-term: up to +120 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026501	3 G 0.75	6.9	21.6	51
0026502	4 G 0.75	7.7	28.8	69
0026503	5 G 0.75	8.6	36.0	87
0026504	7 G 0.75	10.4	50.4	127
0026505	12 G 0.75	12.2	86.4	182
0026506	18 G 0.75	14.9	129.6	277
0026507	25 G 0.75	18.5	180.0	421
0026509	3 G 1.0	7.4	28.8	63
0026510	4 G 1.0	8.2	38.4	82
0026511	5 G 1.0	9.2	48.0	105
0026516	7 G 1.0	11.1	67.2	157
0026517	12 G 1.0	13.3	115.2	226
0026518	18 G 1.0	15.9	172.8	345
0026521	3 G 1.5	8.9	43.2	90
0026522	4 G 1.5	9.9	57.6	118
0026523	5 G 1.5	11.0	72.0	149
0026524	7 G 1.5	13.4	100.8	233
0026525	12 G 1.5	15.8	172.8	322
0026526	18 G 1.5	18.9	259.2	494
0026527	25 G 1.5	23.5	360.0	695
0026531	4 G 2.5	11.8	96.0	181
0026532	5 G 2.5	12.9	120.0	228
0026533	7 G 2.5	15.7	168.0	329
0026534	12 G 2.5	18.7	288.0	491
0026541	4 G 4	13.8	153.6	261
0026551	4 G 6	14.8	230.4	356
0026561	4 G 10	20.1	384.0	596
0026571	4 G 16	23.8	614.4	910

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 855 P refer to page 116

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD ROBUST C

Screened, TPE-insulated, numbered, TPE inner and outer sheath



Info

- Excellent weather resistance
- Temperature range: -40 °C to +105 °C
- EMC-optimised

Benefits

- Well-proven, reliable
- Various applications
- Suitable for all weather conditions
- EMC-compliant
- For indoor and outdoor use

Application range

- Machine tool building, medical technology, laundries, car washing equipment, chemical industry, composting plants, sewage works
- Particularly in wet areas of machine tools and transfer lines
- Food and beverage industry, especially for production and processing equipment of milk and meat products
- Resistant to contact with plant, animal or synthetic-based organic oils, greases, waxes and the related emulsions
- Assembly lines, production lines, in all kinds of machines

Product features

- Hydrolysis-resistant to warm and hot water
- Low-adhesive surface
- Highly resistant to oil and chemicals
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for up to 5 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire, tinned copper strands
- Core insulation: TPE
- Cores twisted together in extremely short lay lengths
- Non-woven wrapping
- Inner sheath made of TPE
- Tinned-copper braiding
- Robust outer sheath made of special halogen-free TPE, black (RAL 9005)

Technical data

- Core identification code**
Black cores with printed white numbers (VDE 0293)
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6
- Minimum bending radius**
For flexible use:
7.5 x cable diameter (at temperatures < 70 °C)
10 x cable diameter (at a max. temperature of 105 °C)
- Nominal voltage**
300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40 °C to +105 °C
Fixed installation: -50 °C to +105 °C
Short-term: up to +120 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026701	3 G 0.75	9.1	49.6	110
0026702	4 G 0.75	10.1	60.9	137
0026703	5 G 0.75	10.8	72.8	160
0026704	7 G 0.75	12.6	107.2	238
0026705	12 G 0.75	15.0	151.5	312
0026706	18 G 0.75	17.7	205.5	448
0026707	25 G 0.75	21.7	299.1	657
0026709	3 G 1.0	9.8	61.1	125
0026716	7 G 1.0	13.9	132.3	278
0026717	12 G 1.0	16.1	189.1	370
0026721	3 G 1.5	10.9	79.8	163
0026722	4 G 1.5	12.1	99.2	210
0026723	5 G 1.5	13.6	129.7	264
0026724	7 G 1.5	15.8	175.2	370
0026725	12 G 1.5	18.4	257.1	498
0026726	18 G 1.5	22.1	378.9	749
0026727	25 G 1.5	27.1	555.5	1042
0026731	4 G 2.5	14.4	161.5	307
0026732	5 G 2.5	15.5	188.3	361
0026733	7 G 2.5	18.3	252.6	512
0026734	12 G 2.5	21.9	406.5	730
0026741	4 G 4	16.2	227.3	412
0026751	4 G 6	17.2	306.7	519
0026761	4 G 10	23.3	513.6	853
0026771	4 G 16	27.2	809.6	1273

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 855 CP refer to page 117
- ÖLFLEX® PETRO FD 865 CP refer to page 118

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX®
 UNITRONIC®
 ETHERLINE®
 HITRONIC®
 EPIC®
 SKINTOP®
 SILVYN®
 FLEXIMARK®
 ACCESSORIES
 APPENDIX

ÖLFLEX® FD 90

PVC-insulated, PVC sheath, single core, approved



Benefits

- Multi-standard= fewer part varieties = cost savings
- Easy to install
- For various applications

Application range

- In power chains or moving machine parts
- For internal wiring of electric and electronic equipment in switch cabinets
- This cable can also substitute multi-core shielded servo drive cables where space requirements or minimum bending radii present problems
- Specially designed for power circuits of servomotors driven by frequency converters as well as main spindle drives in machine tools
- Test systems in the automotive industry, vehicles and stationary fuel cell systems

Product features

- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- Oil-resistant
- Designed for operation under a minimum bending radius of at least 7.5 times the cable diameter

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- Approval signs for Canada: sizes up to 120 mm² CSA AWM, sizes from 150 mm²: UL cRU AWM

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Non-woven wrapping
- PVC outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black or green-yellow, other colours available on request
- Approvals**
UL-AWM-Style 10107, cRU AWM II A/B FT1 ≥150mm²
CSA AWM IA/B IIA/B FT 1 ≤ 120mm²
- Based on**
VDE 0250, 0281
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexing: 7.5 x outer diameter
Fixed installation: 3 x outer diameter
- Nominal voltage**
IEC: 600 / 1000 V
UL & CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with PE conductor
X = without PE jacket
- Temperature range**
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Core colour	Copper index (kg/km)	Weight (kg/km)
0026600	10.0	9.0	green-yellow	96.0	176
0026601	10.0	9.0	black	96.0	176
0026603	16.0	10.5	green-yellow	153.6	240
0026604	16.0	10.5	black	153.6	240
0026607	25.0	11.8	green-yellow	240.0	361
0026608	25.0	11.8	black	240.0	361
0026610	35.0	14.2	green-yellow	336.0	482
0026611	35.0	14.2	black	336.0	482
0026613	50.0	16.2	green-yellow	480.0	660
0026614	50.0	16.2	black	480.0	660
0026616	70.0	18.3	green-yellow	672.0	898
0026617	70.0	18.3	black	672.0	898
0026619	95.0	19.8	green-yellow	912.0	1179
0026620	95.0	19.8	black	912.0	1179
0026622	120.0	23.4	green-yellow	1,152.0	1521
0026623	120.0	23.4	black	1,152.0	1521
0026625	150.0	25.1	green-yellow	1,440.0	1739
0026626	150.0	25.1	black	1,440.0	1739
0026628	185.0	28.1	green-yellow	1,776.0	2305
0026629	185.0	28.1	black	1,776.0	2305
0026634	240.0	31.6	green-yellow	2,304.0	2944
0026635	240.0	31.6	black	2,304.0	2944
0026640	300.0	33.5	green-yellow	2,880.0	3545
0026641	300.0	33.5	black	2,880.0	3545

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Various applications, approved

ÖLFLEX® FD 90 CY

Screened, PVC-insulated, PVC sheath, single core, approved



Info

- EMC-compliant

Benefits

- Multi-standard= fewer part varieties = cost savings
- Easy to install
- For various applications

Application range

- In power chains or moving machine parts
- For internal wiring of electric and electronic equipment in switch cabinets
- Specially designed for power circuits of servomotors driven by frequency converters as well as main spindle drives in machine tools
- This cable can also substitute multi-core shielded servo drive cables where space requirements or minimum bending radii present problems
- Test systems in the automotive industry, vehicles and stationary fuel cell systems

Product features

- Oil-resistant
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1
- Designed for operation under a minimum bending radius of at least 7.5 times the cable diameter

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- Approval signs for Canada: sizes up to 120 mm² CSA AWM, sizes from 150 mm²: UL cRU AWM

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Non-woven wrapping
- Tinned-copper braiding
- Non-woven wrapping
- PVC outer sheath, orange (RAL 2003)

Technical data

Core identification code
Black, other colours are available upon request

Approvals
UL-AWM-Style 10107, cRU AWM II A/B FT 1 ≥150mm²
CSA AWM IA/B IIA/B FT 1 ≤ 120mm²

Based on
VDE 0250, 0281

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6

Minimum bending radius
For flexible use: 7.5 x outer diameter
Fixed installation: 3 x outer diameter

Nominal voltage
IEC: 600/1000 V
UL & CSA: 600 V

Test voltage
4000 V

Protective conductor
X = without protective conductor

Temperature range
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026651	10	9.7	127.6	227
0026653	16	11.2	186.2	297
0026655	25	12.5	257.8	410
0026657	35	15.1	400.7	607
0026659	50	17.1	554.8	808
0026661	70	19.4	775.6	1081
0026663	95	20.9	1,028.1	1382
0026665	120	24.5	1,282.4	1752
0026667	150	26.2	1,410.4	1924
0026669	185	29.2	1,935.0	2611
0026671	240	32.9	2,526.0	3372
0026673	300	34.8	3,128.8	4105

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).
DESINA® is a registered trademark of the German Machine Tool Builders' Association
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-M BRUSH refer to page 669
- SILVYN® CHAIN cable protection and guiding systems

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ACCESSORIES
APPENDIX

New

ÖLFLEX® CHAIN 809

PVC-insulated, numbered, PVC sheath, approved



Info

- Basic Line for light & ordinary duty in power chain applications



Benefits

- Good combination of quality and price
- Compact design

Application range

- In power chains or moving machine parts
- In dry, damp or wet interiors
- Suitable for use in measuring, control and regulating circuits
- Wiring of machines, tools, devices, appliances and control cabinets
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Product features

- Low-adhesive surface
- Designed for 1...2 million bending/unbending cycles in the power chain
- Flame retardancy:
UL/CSA: VW-1, FT1.
IEC/EN: 60332.1.2

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- PVC outer sheath, grey (RAL 7001)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
cUL AWM II A/B FT1
UL-AWM-Style 20886
- Based on**
HD 21.13 S1; VDE 0281 Part 13
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
For flexible applications:
Chains in self supporting non-gliding arrangements: 10 x outside diameter
Chains in gliding arrangements: 12 x outside diameter
- Nominal voltage**
VDE: U₀/U: 300/500 V
UL & CSA: 1000 V
- Test voltage**
Core/core: 4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: VDE 0 °C to +70 °C UL 0 °C to +80 °C
Fixed installation: VDE -40 °C to +70 °C; UL/CSA -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)
1026700	2 X 0.5	5.2	10.0	40
1026701	3 G 0.5	5.5	15.0	48
1026702	4 G 0.5	6.0	20.0	58
1026703	5 G 0.5	6.5	24.0	67
1026704	7 G 0.5	7.7	34.0	88
1026705	12 G 0.5	9.2	58.0	136
1026706	18 G 0.5	11.0	87.0	195
1026707	25 G 0.5	13.3	120.0	274
1026708	2 X 0.75	5.6	15.0	49
1026709	3 G 0.75	6.0	22.0	60
1026710	4 G 0.75	6.5	29.0	73
1026711	5 G 0.75	7.1	37.0	86
1026712	7 G 0.75	8.5	51.0	117
1026713	12 G 0.75	10.3	87.0	181
1026714	18 G 0.75	12.2	130.0	259
1026715	25 G 0.75	14.8	181.0	363
1026716	2 X 1.0	5.9	19.0	58
1026717	3 G 1.0	6.3	29.0	72

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026718	4 G 1.0	6.9	39.0	88
1026719	5 G 1.0	7.5	48.0	104
1026720	7 G 1.0	9.0	67.0	142
1026721	12 G 1.0	10.9	115.0	221
1026722	18 G 1.0	13.2	173.0	324
1026723	25 G 1.0	15.7	240.0	445
1026724	2 X 1.5	6.5	29.0	74
1026725	3 G 1.5	6.9	43.2	93
1026726	4 G 1.5	7.6	58.0	114
1026727	5 G 1.5	8.5	72.0	139
1026728	7 G 1.5	10.3	101.0	189
1026729	12 G 1.5	12.3	173.0	295
1026730	18 G 1.5	14.9	259.0	429
1026731	25 G 1.5	17.9	360.0	597
1026732	3 G 2.5	8.4	72.0	145
1026733	4 G 2.5	9.3	96.0	179
1026734	7 G 2.5	12.7	120.0	218
1026737	4 G 4	11.1	160.0	266

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD CLASSIC 810 refer to page 108
- ÖLFLEX® CHAIN 879 refer to page 127
- ÖLFLEX® FD 891 refer to page 125

Accessories

- EPIC® Industrial connectors refer to page 450
- SKINTOP® MS-SC-M refer to page 668

Power chain applications

Various applications, approved

New

ÖLFLEX® CHAIN 809 CY

Screened, PVC-insulated, numbered, PVC-sheath, approved



Info

- Basic Line for light & ordinary duty in power chain applications

Benefits

- Good combination of quality and price
- Compact design

Application range

- In power chains or moving machine parts
- In EMC-sensitive environments
- Suitable for use in measuring, control and regulating circuits
- Wiring of machines, tools, devices, appliances and control cabinets
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Product features

- Low-adhesive surface
- Designed for 1...2 million bending/unbending cycles in the power chain
- Flame retardancy: UL/CSA: VW-1, FT1. IEC/EN: 60332.1.2

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- Tinned-copper braiding
- Non-woven wrapping
- PVC outer sheath, grey (RAL 7001)

Technical data



Core identification code
Black with white numbers acc. to VDE 0293



Approvals
cUL AWM II A/B FT1
UL-AWM-Style 20886



Based on
HD 21.13 S1; VDE 0281 Part 13



Specific insulation resistance
> 20 GOhm x cm



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



Minimum bending radius
For flexible applications:
Chains in self supporting non-gliding arrangements: 10 x outside diameter
Chains in gliding arrangements: 12 x outside diameter



Nominal voltage
VDE: U₀/U: 300/500 V
UL & CSA: 1000 V



Test voltage
Core/core: 4000 V
Core/screen: 2000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Flexing: VDE 0 °C to +70 °C UL 0 °C to +80 °C
Fixed installation: VDE -40 °C to +70 °C; UL/CSA -40 °C to +80 °C;

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026751	2 X 0.5	5.8	36.0	45
1026752	3 G 0.5	6.1	43.0	59
1026753	4 G 0.5	6.6	49.0	83
1026754	5 G 0.5	7.1	57.0	96
1026755	7 G 0.5	8.5	69.0	136
1026756	12 G 0.5	10.0	104.0	200
1026757	18 G 0.5	11.8	141.0	275
1026758	25 G 0.5	14.1	211.0	350
1026759	2 X 0.75	6.2	43.0	56
1026760	3 G 0.75	6.6	52.0	70
1026761	4 G 0.75	7.1	61.0	95
1026762	5 G 0.75	7.7	72.0	130
1026763	7 G 0.75	9.1	89.0	168
1026764	12 G 0.75	10.9	138.0	232
1026765	18 G 0.75	13.0	211.0	315
1026766	25 G 0.75	15.6	280.0	435
1026767	2 X 1.0	6.5	51.0	84
1026768	3 G 1.0	6.9	62.0	110

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026769	4 G 1.0	7.5	74.0	130
1026770	5 G 1.0	8.3	88.0	156
1026771	7 G 1.0	9.8	112.0	192
1026772	12 G 1.0	11.7	185.0	285
1026773	18 G 1.0	14.0	268.0	395
1026774	25 G 1.0	16.7	354.0	486
1026775	2 X 1.5	7.1	65.0	97
1026776	3 G 1.5	7.5	82.0	125
1026777	4 G 1.5	8.4	100.0	165
1026778	5 G 1.5	9.1	119.0	193
1026779	7 G 1.5	10.9	154.0	245
1026780	12 G 1.5	13.3	268.0	365
1026781	18 G 1.5	15.7	373.0	553
1026782	25 G 1.5	18.7	530.0	734
1026783	3 G 2.5	9.0	118.0	188
1026784	4 G 2.5	10.1	147.0	236
1026785	7 G 2.5	13.5	253.0	340
1026788	4 G 4	11.9	248.0	305

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD CLASSIC 810 CY refer to page 109
- ÖLFLEX® CHAIN 815 CY refer to page 110
- ÖLFLEX® CHAIN 879 CY refer to page 128

Accessories

- EPIC® Industrial connectors refer to page 450
- SKINTOP® MS-SC-M refer to page 668

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® FD 891

PVC-insulated, numbered, PVC sheath, approved



Info

- Please note: discontinued product! <Reduced range of sizes>
- Multi Standard: many countries, one cable

Benefits

- Multi-standard= fewer part varieties = cost savings

Application range

- In power chains or moving machine parts
- Plant engineering
- Machine tools

Product features

- Oil-resistant
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- In damp or wet interiors
- Designed for up to 5 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- PVC outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL-AWM-Style 2587 + 21098
CSA AWM IA/B; IIA/B FT 1
- Based on**
VDE 0250/0281
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
IEC: 300/500 V
UL/CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026012	12 G 0.5	10.8	57.6	162
1026103	3 G 0.75	6.6	21.6	63
1026104	4 G 0.75	7.3	28.8	75
1026105	5 G 0.75	8.0	36.0	90
1026107	7 G 0.75	9.6	50.4	132
1026112	12 G 0.75	11.6	86.5	201
1026118	18 G 0.75	13.9	129.6	300
1026125	25 G 0.75	16.6	180.0	415
1026303	3 G 1.5	7.7	43.2	93
1026304	4 G 1.5	8.8	57.6	122
1026305	5 G 1.5	9.6	72.0	147
1026307	7 G 1.5	11.6	100.8	219
1026312	12 G 1.5	13.9	172.8	322
1026318	18 G 1.5	16.9	259.2	478
1026325	25 G 1.5	20.1	360.0	670
1026334	34 G 1.5	23.6	489.6	897
1026403	3 G 2.5	8.8	72.0	129
1026404	4 G 2.5	9.8	96.0	167
1026405	5 G 2.5	11.0	120.0	212
1026407	7 G 2.5	13.4	168.0	304
1026412	12 G 2.5	15.8	288.0	452
1026504	4 G 4	11.8	153.6	263
1026505	5 G 4	13.2	192.0	325
1026507	7 G 4	16.1	268.8	469
1026604	4 G 6	13.7	230.4	368
1026614	4 G 10	17.9	384.0	588
1026624	4 G 16	24.1	614.4	1031
1026634	4 G 25	27.9	960.0	1530
1026644	4 G 35	31.1	1,344.0	1959

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 DESINA® is a registered trademark of the German Machine Tool Builders' Association
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 809 refer to page 124
- ÖLFLEX® FD 891 P refer to page 129

Accessories

- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Various applications, approved

ÖLFLEX® FD 891 CY

Screened, PVC-insulated, numbered, PVC inner and outer sheath, approved



Info

- Please note: discontinued product! <Reduced range of sizes>
- Multi Standard: many countries, one cable

Benefits

- Multi-standard= fewer part varieties = cost savings

Application range

- In power chains or moving machine parts
- Plant engineering
- Machine tools

Product features

- Oil-resistant
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1
- In damp or wet interiors
- Designed for up to 5 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- Non-woven wrapping
- PVC outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL-AWM-Style 2587 + 21098
CSA AWM IA/B; IIA/B FT 1
- Based on**
VDE 0250/0281
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
IEC: 300/500 V
UL/CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1027003	3 G 0.5	7.9	38.9	89
1027004	4 G 0.5	8.5	47.3	102
1027005	5 G 0.5	9.2	55.3	127
1027007	7 G 0.5	10.9	81.1	177
1027012	12 G 0.5	12.6	99.9	234
1027018	18 G 0.5	15.5	160.1	381
1027025	25 G 0.5	17.7	203.9	472
1027103	3 G 0.75	8.2	49.2	105
1027104	4 G 0.75	8.9	59.9	123
1027105	5 G 0.75	10.0	68.6	155
1027107	7 G 0.75	11.6	91.7	206
1027112	12 G 0.75	13.8	152.1	304
1027118	18 G 0.75	16.3	204.4	425
1027303	3 G 1.5	9.7	74.8	152
1027304	4 G 1.5	10.6	94.2	187
1027305	5 G 1.5	11.4	101.1	187
1027307	7 G 1.5	13.8	165.6	320
1027312	12 G 1.5	16.3	246.5	460
1027318	18 G 1.5	19.5	374.7	677
1027325	25 G 1.5	23.6	489.4	926
1027403	3 G 2.5	10.6	103.9	194
1027404	4 G 2.5	11.8	161.8	235
1027405	5 G 2.5	13.0	184.6	306
1027407	7 G 2.5	15.8	242.1	428
1027412	12 G 2.5	18.2	403.5	590
1027503	3 G 4	12.4	157.5	275
1027504	4 G 4	14.0	218.1	365
1027507	7 G 4	18.3	373.2	629
1027604	4 G 6	16.1	304.7	500
1027624	4 G 16	27.1	803.6	1357
1027634	4 G 25	31.3	1,180.4	1879
1027644	4 G 35	34.3	1,593.7	2360

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

Copper price basis: EUR 150/100kg. Refer to 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).

DESINA® is a registered trademark of the German Machine Tool Builders' Association

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

Similar products

- ÖLFLEX® CHAIN 809 CY refer to page 124
- ÖLFLEX® FD 891 CP refer to page 127

Accessories

- EPIC® Industrial connectors refer to page 450
- SKINTOP® MS-SC-M refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 879

PVC-insulated, numbered, PVC sheath, approved



Info

- Power chain cable compliant with NFPA 79

Benefits

- Approved for use in USA: These cables are highly accepted by NRTLs and AHJs as they are MTW-listed.
- Wide application range due to multiple approvals

Application range

- In power chains or moving machine parts
- Automated handling equipment
- Industrial machinery
- Plant engineering

Product features

- Oil-resistant according to UL OIL RES I & II
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Insulation: PVC with nylon sheath (PA skin)
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- PVC outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL Type MTW & UL AWM Style 20886
CSA AWM IA/B; IIA/B FT 1
- Based on**
VDE 0250/0281
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
except #872003, 872012, 871803, 871812:
12 x o.d.
Fixed installation:
4 x outer diameter
- Nominal voltage**
IEC: 300/500 V
UL MTW & CSA AWM: 600 V / UL AWM 1000V
- Test voltage**
2000V
- Protective conductor**
G = with GN-YE protective conductor
- Temperature range**
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
872003	3 G	20	7.3	15.0	58
872004	4 G	20	8.0	21.0	70
872005	5 G	20	8.6	25.5	81
872007	7 G	20	9.9	36.0	104
872012	12 G	20	11.4	61.0	151
872018	18 G	20	14.2	93.0	236
872025	25 G	20	17.0	127.5	311
871803	3 G	18	7.8	31.5	78
871804	4 G	18	8.6	40.5	95
871805	5 G	18	9.3	51.0	112
871807	7 G	18	10.8	72.0	148
871812	12 G	18	12.4	123.0	248
871815	15 G	18	13.8	154.5	299
871818	18 G	18	15.4	184.5	345
871825	25 G	18	18.5	256.5	461
871603	3 G 1.5		8.6	46.5	100
871604	4 G 1.5		9.5	61.5	124
871605	5 G 1.5		10.3	76.5	147
871607	7 G 1.5		12.0	108.0	195
871612	12 G 1.5		14.7	184.5	329
871618	18 G 1.5		17.2	277.5	463
871625	25 G 1.5		20.8	384.0	680
871404	4 G 2.5		10.6	102.0	175
871407	7 G 2.5		13.6	180.0	310
871204	4 G 4		12.4	163.5	251
871207	7 G 4		16.9	286.5	445
871004	4 G 6		15.3	246.0	388
870804	4 G 10		19.7	411.0	679
870604	4 G 16		23.7	657.0	970

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 152 m; Drum 305 m
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 891 refer to page 125
- ÖLFLEX® FD 891 P refer to page 129
- ÖLFLEX® CHAIN 809 refer to page 123

Accessories

- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Various applications, approved

ÖLFLEX® CHAIN 879 CY

Screened, PVC-insulated, numbered, PVC-sheath, approved



Info

- Power chain cable compliant with NFPA 79
- EMC-compliant

Benefits

- Approved for use in USA: These cables are highly accepted by NRTLs and AHJs as they are MTW-listed.
- Wide application range due to multiple approvals

Application range

- In power chains or moving machine parts
- Automated handling equipment
- Industrial machinery
- Machine tools
- Plant engineering

Product features

- Oil-resistant according to UL OIL RES I & II
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1
- In damp or wet interiors
- Designed for up to 5 million bending/unbending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PVC outer sheath, black (RAL 9005)

Technical data

Core identification code
Black with white numbers acc. to VDE 0293

Approvals
UL Type MTW & UL AWM Style 20886
CSA AWM IA/B; IIA/B FT 1

Based on
VDE 0250/0281

Conductor stranding
Extra-fine wire acc. to VDE 0295, class 6/
IEC 60228 class 6

Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation: 6 x outer diameter

Nominal voltage
IEC: 300/500 V
UL MTW & CSA AWM: 600 V / UL AWM 1000V

Test voltage
2000V

Protective conductor
G = with GN-YE protective conductor

Temperature range
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm ² per conductor	AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
872003CY	3 G	20	8.0	37.5	85
872004CY	4 G	20	8.7	46.5	99
872005CY	5 G	20	9.3	54.0	113
872007CY	7 G	20	10.7	70.5	142
872012CY	12 G	20	12.3	112.5	207
872018CY	18 G	20	15.1	153.0	304
872025CY	25 G	20	18.1	225.0	416
871803CY	3 G	18	8.5	55.5	106
871804CY	4 G	18	9.3	69.0	127
871805CY	5 G	18	10.0	82.5	147
871807CY	7 G	18	11.6	118.5	200
871812CY	12 G	18	14.1	178.5	311
871818CY	18 G	18	16.3	252.0	419
871825CY	25 G	18	19.6	363.0	576
871603CY	3 G 1.5	9.3	9.3	75.0	132
871604CY	4 G 1.5	10.2	10.2	93.0	159
871605CY	5 G 1.5	11.0	11.0	112.5	186
871607CY	7 G 1.5	12.9	12.9	162.0	254
871612CY	12 G 1.5	15.6	15.6	249.0	400
871618CY	18 G 1.5	18.4	18.4	375.0	569
871625CY	25 G 1.5	23.1	23.1	508.5	814
871404CY	4 G 2.5	11.5	11.5	148.5	226
871407CY	7 G 2.5	15.4	15.4	243.0	379
871204CY	4 G 4	13.3	13.3	220.5	312
871207CY	7 G 4	17.8	17.8	363.0	527
871004CY	4 G 6	16.1	16.1	313.5	462
870804CY	4 G 10	21.9	21.9	525.0	805
870604CY	4 G 16	24.8	24.8	792.0	1116

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD CLASSIC 810 CY refer to page 109
- ÖLFLEX® CHAIN 815 CY refer to page 110
- ÖLFLEX® CHAIN 809 CY refer to page 124
- ÖLFLEX® FD 891 CY refer to page 126
- ÖLFLEX® FD 891 CP refer to page 130

Accessories

- EPIC® Industrial connectors refer to page 450
- SKINTOP® MS-SC-M refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® FD 891 P

PVC-insulated, numbered, PUR sheath, approved



Info

- **Multi Standard: many countries, one cable**

Benefits

- Multi-standard= fewer part varieties = cost savings
- Protected against water and dirt

Application range

- In power chains or moving machine parts
- Plant engineering
- Machine tools

Product features

- Abrasion and cut-resistant
- Oil-resistant
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT1
- Designed for up to 5 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- PUR outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL rec. AWM Style 20234
cRU AWM II A/B FT 1
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
For flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
IEC: 300/500 V
UL/CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +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)
1028752	2 X 0.5	6.5	9.6	46
1028007	7 G 0.5	9.6	33.6	118
1028103	3 G 0.75	7.3	21.6	66
1028104	4 G 0.75	8.0	28.8	82
1028105	5 G 0.75	8.7	36.0	101
1028107	7 G 0.75	10.7	50.4	142
1028112	12 G 0.75	11.7	86.4	196
1028118	18 G 0.75	13.9	129.6	282
1028125	25 G 0.75	16.6	180.0	404
1028134	34 G 0.75	18.9	244.8	541
1028150	50 G 0.75	22.5	360.0	738
1028303	3 G 1.5	8.4	43.2	98
1028304	4 G 1.5	9.3	57.6	125
1028305	5 G 1.5	10.1	72.0	155
1028307	7 G 1.5	11.9	100.8	221
1028312	12 G 1.5	13.9	172.8	318
1028318	18 G 1.5	16.9	259.2	484
1028325	25 G 1.5	20.1	360.0	671
1028334	34 G 1.5	23.1	489.6	910
1028952	2 X 2.5	8.9	48.0	102
1028403	3 G 2.5	9.3	72.0	134
1028404	4 G 2.5	10.3	96.0	173
1028405	5 G 2.5	11.3	120.0	217
1028407	7 G 2.5	13.4	168.0	312
1028412	12 G 2.5	15.8	288.0	460
1028503	3 G 4	10.9	115.2	197
1028504	4 G 4	12.1	153.6	257
1028507	7 G 4	16.1	268.8	471
1028604	4 G 6	13.7	230.4	363
1028614	4 G 10	17.9	384.0	605
1028624	4 G 16	23.4	614.4	973
1028634	4 G 25	27.6	960.0	1437

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 DESINA® is a registered trademark of the German Machine Tool Builders' Association
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 808 P refer to page 111
- ÖLFLEX® FD CLASSIC 810 P refer to page 113
- ÖLFLEX® FD 855 P refer to page 116
- ÖLFLEX® CHAIN 879 refer to page 127
- ÖLFLEX® FD 891 refer to page 125

Accessories

- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Harsh conditions, approved

ÖLFLEX® FD 891 CP

Screened, PVC-insulated, numbered, PVC inner sheath, PUR outer sheath, approved



Info

- EMC-compliant

Benefits

- Multi-standard= fewer part varieties = cost savings
- Protected against water and dirt

Application range

- In power chains or moving machine parts
- Plant engineering
- Machine tools

Product features

- Abrasion and cut-resistant
- Oil-resistant
- Low-adhesive surface
- Flame-retardant according to IEC 60332.1.2 & CSA FT 1
- Designed for up to 5 million bending/un-bending cycles in the power chain. Further informations regarding service life see table T0 of the appendix of the Lapp catalogue.

Approvals



- For travel distances up to 10 m.
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: PVC
- Cores twisted in layers in short lay lengths
- Non-woven wrapping
- Special PVC-based inner sheath
- Tinned-copper braiding
- PUR outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Approvals**
UL-AWM-Style 20234
cUL AWM II A/B FT 1
- Based on**
VDE 0250/0281/0282
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire acc. to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 7.5 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
IEC: 300/500 V
UL/CSA: 600 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -5°C to +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)
1029012	12 G 0.5	12.9	114.7	253
1029025	25 G 0.5	17.7	203.9	495
1029103	3 G 0.75	8.9	49.2	118
1029104	4 G 0.75	9.6	59.9	140
1029107	7 G 0.75	11.9	91.7	226
1029125	25 G 0.75	19.2	295.0	618
1029134	34 G 0.75	21.6	363.9	794
1029312	12 G 1.5	16.1	246.5	470
1029318	18 G 1.5	19.5	374.7	711
1029405	5 G 2.5	13.3	184.6	328
1029507	7 G 4	18.3	353.4	650

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).
DESINA® is a registered trademark of the German Machine Tool Builders' Association
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 808 CP refer to page 112
- ÖLFLEX® CHAIN 815 CP refer to page 115
- ÖLFLEX® FD 855 CP refer to page 117
- ÖLFLEX® CHAIN 879 CY refer to page 128
- ÖLFLEX® FD 891 CY refer to page 126

Accessories

- Rectangular connectors refer to page 450
- SKINTOP® MS-SC-M refer to page 668
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX®
UNITRONIC®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
SILVYN®
FLEXIMARK®
ACCESSORIES
APPENDIX

ÖLFLEX® ROBOT 900 P

TPE-PUR robot cable, for flexing and torsion load



Info

- Simultaneous bending and torsion

Benefits

- Space-saving installation due to small cable diameters
- High-Tec robot cables available from the warehouse!
- Protected against water and dirt
- Wear-resistant

Application range

- Plant engineering
- Machine tools
- Automated handling equipment
- Multi-axis articulated robots
- In power chains or moving machine parts

Product features

- Abrasion and cut-resistant
- Hydrolysis-resistant
- Oil-resistant
- Low-adhesive surface
- Flame-retardant

Approvals



- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- For travel distances up to 10 m.

Design

- Fine or extra-fine strands made of bare copper wire
- Core insulation: TPE
- Cores twisted in layers
- PTFE tape wrapping
- PUR outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: black cores with white printed numbers
- Mutual capacitance**
C/C approx. 100 nF/km
C/S approx. 120 nF/km
- Peak operating voltage**
0.34 mm²: 350 V (not for power transmission)
- Based on**
VDE 0281/0282
VDE 0812
- Specific insulation resistance**
> 20 GOhm x cm
- Inductivity**
approx. 0.7 mH/km
- Conductor stranding**
Fine wire or extra-fine wire
- Torsion**
Max. torsion load
± 360°/m
- Minimum bending radius**
Flexing: 15 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
48 V AC
From 0.5 mm² U₀/U: 300/500 V
- Test voltage**
Up to 0.34 mm²: 1500 V
From 0.5 mm²: 3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C
Core insulation: capable of temporary overload to +120°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0028110	7 X 0.25	6.2	16.8	48
0028116	25 X 0.25	10.2	60.0	141
0028188	2 X 0.34	5.0	7.0	27
0028145	18 G 0.5	11.2	86.4	120
0028146	25 G 0.5	13.3	120.0	254
0028160	4 G 0.75	6.6	28.8	63
0028164	14 G 0.75	11.2	100.8	199
0028170	2 X 1.0	6.2	19.2	47
0028171	3 G 1.0	6.5	29.0	61
0028172	4 G 1.0	7.0	38.4	76
0028174	7 G 1.0	9.3	67.2	131
0028176	12 G 1.0	11.5	115.2	216
0028185	16 G 1,0 + (2 x 1,0)	16.0	195.0	376
0028178	18 G 1.0	13.2	172.8	287
0028186	23 G 1,0 + (2 x 1,0)	17.3	262.0	470
0028180	25 G 1.0	16.4	240.0	433
0028190	34 G 1.0	19.9	326.4	571
0028191	41 G 1.0	22.3	393.6	705
0028198	18 G 1.5	15.8	259.2	446
0028181	3 G 2.5	9.3	72.0	136
0028182	4 G 2.5	10.1	96.0	171
0028400	3 G 16	21.4	460.8	721
0028187	3 G 25	26.2	720.0	1178
0028189	3 G 35	28.8	1,008.0	1559

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBOT F1 refer to page 133

Accessories

- SILVYN® RILL PA 12 refer to page 783

ÖLFLEX® ROBOT 900 DP

Screened TPE-PUR robot cable, for bending and torsion loads



Info

- Simultaneous bending and torsion

Benefits

- Space-saving installation due to small cable diameters
- High-Tec robot cables available from the warehouse!
- Protected against water and dirt
- Wear-resistant

Application range

- Plant engineering
- Machine tools
- Automated handling equipment
- Multi-axis articulated robots
- In power chains or moving machine parts

Product features

- Abrasion and cut-resistant
- Hydrolysis-resistant
- Oil-resistant
- Low-adhesive surface
- Flame-retardant

Approvals



- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- For travel distances up to 10 m.

Design

- Fine or extra-fine strands made of bare copper wire
- Core insulation: TPE
- Cores twisted in layers
- PTFE tape wrapping
- Screened version (DP): wrapped with braided tinned-copper wires
- PUR outer sheath, black (RAL 9005)

Technical data



Core identification code

Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: black cores with white printed numbers



Mutual capacitance

C/C approx. 100 nF/km
C/S approx. 120 nF/km



Peak operating voltage

0.34 mm²: 350 V (not for power transmission)



Based on

VDE 0281/0282
VDE 0812



Specific insulation resistance

> 20 GOhm x cm



Inductivity

approx. 0.7 mH/km



Conductor stranding

Fine wire or extra-fine wire



Torsion

Max. torsion load
± 180°/m



Minimum bending radius

Flexing: 15 x outer diameter
Fixed installation:
4 x outer diameter



Nominal voltage

48 V AC
From 0.5 mm² U0/U: 300/500 V



Test voltage

Up to 0.34 mm²: 1500 V
From 0.5 mm²: 3000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C
Core insulation: capable of temporary overload to +120°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0028100	12 x 0,14	6.7	42.5	69
0028105	3 x 2 x 0,14	6.2	17.0	44
0028126	25 x 0,25	11.1	103.5	183
0028135	4 x 0,34	5.7	21.3	46
0028136	5 x 2 x 0,34	9.1	64.4	114
0028195	12 G 1,5	14.0	259.0	395

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBOT F1 (C) refer to page 134

Accessories

- SILVYN® RILL PA 12 refer to page 783

ÖLFLEX® ROBOT F1

TPE-PUR robot cable, for flexing and torsion load, AWM approval



Info

- Simultaneous bending and torsion
- AWM approvals for USA and Canada

Benefits

- Space-saving installation due to small cable diameters
- High-Tec robot cables available from the warehouse!
- Protected against water and dirt
- Wear-resistant

Application range

- Plant engineering
- Multi-axis articulated robots
- Automated handling equipment
- In power chains or moving machine parts

Product features

- Abrasion and cut-resistant
- Hydrolysis-resistant
- Oil-resistant
- Low-adhesive surface
- Flame-retardant

Approvals



- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- For travel distances up to 100 m (horizontal)

Design

- Fine or extra-fine strands, 0.14 mm² - 0.5 mm², made from tinned-copper wires, bare above.
- Core insulation: TPE
- Refer to "Technical Data" for the core-coding
- Cores (or core pairs) twisted in layers or bundles
- PTFE tape wrapping
- Pair screen (D): layer of tinned-copper wires
- PUR outer sheath, black (RAL 9005)

Technical data

- Core identification code**
Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: white cores with black printed numbers
- Approvals**
UL appr AWM style 20940 VW1
cUL appr AWM I/II A/B FT 1
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire or extra-fine wire
- Torsion**
Max. torsion load
± 360° / m
- Minimum bending radius**
Flexible use: 10 x outer diameter
Fixed installation:
4 x outer diameter
- Nominal voltage**
IEC: up to 0.34 mm² 250 Vss. 0.5 - 2.5 mm² 300/500 V
UL/CSA up to 1.5 mm² 600 V, from 2.5 mm² 1000 V
- Test voltage**
Cores: spark test 6 kV
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C
Core insulation: capable of temporary overload to +120°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0029590	7 X 0.25	6.7	16.8	62
0029591	12 X 0.25	9.0	30.0	122
0029592	18 X 0.25	10.6	45.0	156
0029593	25 X 0.25	12.5	60.0	205
0029594	2 X 0.34	4.6	7.0	38
0029595	3 X 0.34	4.8	10.0	40
0029596	4 X 0.34	5.2	15.0	48
0029599	12 X 0.34	9.4	40.0	130
0029600	18 X 0.34	11.2	60.0	170
0029601	25 X 0.34	13.1	83.0	220
0029608	18 G 0.5	12.3	84.0	202
0029609	25 G 0.5	15.2	120.0	284
0029610	2 X 1.0	6.3	19.0	60
0029611	3 G 1.0	6.6	28.0	71
0029612	4 G 1.0	7.2	38.0	87
0029614	7 G 1.0	9.2	65.0	141
0029615	12 G 1.0	12.4	110.0	237
0029616	14 G 1.0	13.2	128.0	257
0029617	16 G 1.0 + (2 x 1.0)	15.4	190.0	346
0029618	18 G 1.0	16.1	170.0	349
0029619	23 G 1 + (2 x 1.0)	18.0	250.0	461
0029620	25 G 1.0	17.8	240.0	407
0029621	34 G 1.0	21.1	320.0	600
0029622	41 G 1.0	23.6	390.0	753
0029624	4 G 1.5	8.2	57.0	114
0029625	5 G 1.5	9.1	72.0	141
0029627	7 G 1.5	10.5	101.0	187
0029629	12 G 1.5	14.3	170.0	294
0029630	18 G 1.5	17.5	259.0	450
0029631	25 G 1.5	19.7	360.0	661
0029632	3 G 2.5	9.1	72.0	136
0029641	4 G 6	13.3	220.0	330

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBOT 900 P refer to page 131

Accessories

- SILVYN® RILL PA 12 refer to page 783

Power chain applications

Torsion, articulated robot, approved

ÖLFLEX® ROBOT F1 (C)

Screened TPE-PUR robot cable, for bending and torsion loads, AWM-approval



Info

- Simultaneous bending and torsion
- AWM approvals for USA and Canada

Benefits

- Space-saving installation due to small cable diameters
- High-Tec robot cables available from the warehouse!
- Protected against water and dirt
- Wear-resistant

Application range

- Plant engineering
- Multi-axis articulated robots
- Automated handling equipment
- In power chains or moving machine parts

Product features

- Abrasion and cut-resistant
- Hydrolysis-resistant
- Oil-resistant
- Low-adhesive surface
- Flame-retardant

Approvals



- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- For travel distances up to 100 m (horizontal)

Design

- Fine or extra-fine strands, 0.14 mm² - 0.5 mm², made from tinned-copper wires, bare above.
- Core insulation: TPE
- Refer to "Technical Data" for the core-coding
- Cores (or core pairs) twisted in layers or bundles
- PTFE tape wrapping
- Screening: wrapped with braided tinned-copper wires, or layers of tinned-copper wires. Refer to the respective data sheet for each article number.
- PUR outer sheath, black (RAL 9005)

Technical data

Core identification code
Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: white cores with black printed numbers

Approvals
UL appr AWM style 20940 VW1
cUL appr AWM I/II A/B FT 1

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
Fine wire or extra-fine wire

Torsion
Max. torsion load
± 180°/m

Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation:
4 x outer diameter

Nominal voltage
IEC: up to 0.34 mm² 250 Vss, 0.5 - 2.5 mm² 300/500 V
UL/CSA up to 1.5 mm² 600 V, from 2.5 mm² 1000 V

Test voltage
Cores: spark test 6 kV

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
Flexing: -40°C to +80°C
Fixed installation: -50°C to +80°C
Core insulation: capable of temporary overload to +120°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0029653	3 x 2 x 0,25	8.0	38.0	100
0029654	25 x 0,25	13.8	115.0	280
0029655	2 x 0,34	5.2	18.0	54
0029656	3 x 0,34	5.4	20.0	56
0029657	4 x 0,34	6.6	28.0	72
0029658	5 x 2 x 0,34	10.2	69.0	158
0029689	12 G 1,5	15.4	230.0	380
0029690	18 G 1,5	18.5	340.0	550
0029664	4 G 1,5	8.8	75.1	120
0029665	4 G 2,5	10.3	116.0	200
0029691	4 G 1,5 + (2 x 1,0)	11.0	116.0	213
0029692	4 G 2,5 + (2 x 1,0)	12.0	150.0	270

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBOT 900 DP refer to page 134

Accessories

- SILVYN® RILL PA 12 refer to page 783

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

LiFY

Flexible at cold temperatures, Class 6 single conductor for devices or measurements

Benefits

- Very soft PVC insulation that is flexible at low temperatures

Application range

- For use in and on mobile equipment
- For measuring assemblies in technical training sessions, education and electric laboratories

Approvals



Technical data

- DIN VDE Based on**
VDE 0682/0683 and DIN 46438/46440
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine-wire: 0.07 mm acc. to VDE 0295
- Nominal voltage**
Highly flexible LiFY cores:
up to 1.0 mm²: U0/U: 300/500 V,
from 1.5 mm²: U0/U: 450/750 V
- Test voltage**
1500 V
- Temperature range**
Flexible use: -15°C to +70°C



Design

- Stranded copper wire
- Core insulation: Based on PVC

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	PU	Green/yellow	black	blue	red
0.75	2.5	7.2	100	4560017S	4560013S	4560014S	4560016S
1	2.9	9.6	100	4560027S	4560023S	4560024S	4560026S
1.5	3.7	14.4	100	4560037S	4560033S	4560034S	4560036S
2.5	4.2	24.0	50	4560057S	4560053S	4560054S	4560056S
4	5.1	38.4	100	4560067	4560063	4560064	
6	6.0	57.6	50	4560077	4560073	4560074	4560076
10	7.4	96.0	50	4560087	4560083		4560086

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- PEW 8.87 crimping pliers refer to page 916
- KS 15 cable shears refer to page 903

LiFY MEASURING

Flexible at cold temperatures, Class 6 single conductor for devices or measurements

Benefits

- Very soft PVC insulation that is flexible at low temperatures

Application range

- For use in and on mobile equipment
- The 1000 V version with thick insulation wall is ideal for many measuring instruments such as multimeters.
- For measuring assemblies in technical training sessions, education and electric laboratories

Approvals



Technical data

- DIN VDE Based on**
VDE 0682/0683 and DIN 46438/46440
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine-wire: 0.07 mm acc. to VDE 0295
- Nominal voltage**
LiFY measurement cores:
U: 1000 VAC
- Test voltage**
1500 V
- Temperature range**
Flexible use: -15°C to +70°C



Design

- Stranded copper wire
- Core insulation: Based on PVC

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	PU	black	blue	red
0.75	4.0	7.2	50	4560011S	4560021S	4560041S
1.5	4.0	14.4	50	4560012S	4560022S	4560042S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- PEW 8.87 crimping pliers refer to page 916
- KS 15 cable shears refer to page 903

Special applications

Special single cores

ESUY Copper Earthing Cable

Flexible single conductor for grounding and shorting as well as for grounding installation and potential equalisation

Benefits

- Very flexible despite a large cross-section

Application range

- Provides protection during repairs
- For earthing in high-voltage power installations of power companies and railway systems
- For earthing devices and potential equalisation on machine parts and EDP systems

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



- “CE” mark is forbidden, since there is no defined rated voltage (earthing cable) and, thus, no technical and legal possibility of compliance with the European Low Voltage EC Directive 2006/95/EC, which the “CE” marks of most of the cables sold by us refer to

Design

- Strands of bare copper wires
- Braiding made of bare copper wires
- PVC-based outer sheath, transparent

Technical data

- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
refer to article table
- Minimum bending radius**
Flexible use: 12 x outer diameter
- Test voltage**
2000 V
- Temperature range**
Flexible use: -5 °C to +70 °C

Article number	Conductor cross-section (mm ²)	Conductor stranding: number of wires x wire diameter (mm)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4571101	16	4200 x 0.07	8.8	177.0	230
4571102	25	3192 x 0.1	10.4	275.0	316
4571103	35	4480 x 0.1	12.4	387.0	475
4571104	50	6383 x 0.1	14.6	560.0	670
4571105	70	8918 x 0.1	17.0	791.0	905
4571106	95	12100 x 0.1	19.8	1,069.0	1220

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- X00V3-D Copper Earthing Cable refer to page 136

Accessories

- Cable shears KT 4 and KT 5 refer to page 904

X00V3-D Copper Earthing Cable

Flexible at cold temperatures, <HAR>-type single conductor for earthing and shorting

Application range

- Provides protection during repairs
- For earthing in high-voltage power installations of power companies and railway systems
- For earthing devices and potential equalisation on machine parts and EDP systems
- For applications in cold environments

- “CE” mark is forbidden, since there is no defined rated voltage (earthing cable) and, thus, no technical and legal possibility of compliance with the European Low Voltage EC Directive 2006/95/EC, which the “CE” marks of most of the cables sold by us refer to

Design

- Strands of bare copper wires
- PVC-based outer sheath, transparent

Approvals



Info

- Formerly: H00V3-D Copper Earthing Cable

Technical data

- Based on**
VDE 0283 Part 3 or EN 61138
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
VDE 0283 Part 3 or EN 61138
- Minimum bending radius**
Flexible use: 12 x outer diameter
- Test voltage**
1000 V
- Temperature range**
Flexible use: -25 °C to +55 °C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4571110	16	8.1	153.6	223
4571111	25	9.5	240.0	330
4571112	35	11.0	336.0	455
4571113	50	13.2	480.0	648
4571114	70	15.8	672.0	913
4571115	95	18.3	912.0	1234

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ESUY Copper Earthing Cable refer to page 136

Accessories

- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX®
 UNITRONIC®
 ETHERLINE®
 HITRONIC®
 EPIC®
 SKINTOP®
 SILVYN®
 FLEXIMARK®
 ACCESSORIES
 APPENDIX

ÖLFLEX® TRUCK 170 FLRY



Benefits

- Special ADR approval
- ADR approval enables use in vehicles transporting hazardous goods

Application range

- Commercial vehicles
- Wiring of electrical equipments in all trailers and semi-trailers

Product features

- UV-resistant
- Resistant to cold temperatures
- Resistant to most oils, chemicals and weather conditions

Approvals



- ISO 4141 and DIN/ISO 6722

Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- Special PVC-based outer sheath

Technical data

- Core identification code**
ISO 4141-3
- Insulation resistance**
10 MOhm x km
- Capacity of data pairs**
Related to length between cores, max. 50 pF/m and between each data transmission core and all other cores in the cable, max. 100 pF/m
- Conductor stranding**
Fine wire according to DIN/ISO 6722
- Minimum bending radius**
12 x outer diameter
- Nominal voltage**
60 V
- Test voltage**
5 kV rms for at least 5 min.
- Temperature range**
Fixed installation: -40°C to +85°C
Area of application, Class A

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRUCK 170 FLRY					
7027060	2 x 1,0	6.0	white-black	19.2	55
7027061	2 x 1,0	6.0	white-brown	19.2	55
7027000	2 x 1,5	6.6	white-black	28.8	68
7027001	2 x 1,5	6.6	white-brown	28.8	68
7027062	3 x 1,0	6.3	black-brown-blue	28.8	63
7027012	3 x 1,0	6.3	white/brown/blue, newest ISO design	28.8	63
7027063	4 x 1,0	6.8	white/black/red/brown	38.4	81
7027034	4 x 1,5	7.5	white/black/red/brown	57.6	106
7027064	5 x 1,0	7.5	white/brown/green/red/grey	48.0	97
7027065	5 x 1,0 + 1 x 2,5	9.0	1.0 = green/brown/red/blue/violet; 2.5 = white	72.0	133
7027066	5 x 1,0 + 1 x 2,5	9.0	1.0 = yellow/black/red/blue/violet; 2.5 = white	72.0	133
7027015	5 x 1,0 + 1 x 2,5	9.0	1.0 = brown/green/red/grey/violet; 2.5 = white, newest ISO design	72.0	133
7027016	5 x 1,0 + 1 x 2,5	9.0	1.0 = brown/yellow/red/grey/violet; 2.5 = white, newest ISO design	72.0	133
7027007	7 x 0,75	7.3	white/black/yellow/red/green/brown/blue	50.4	101
7027067	7 x 1,5	8.9	white/black/yellow/red/green/brown/blue	100.8	166
7027068	6 x 1,5 + 1 x 2,5	10.3	ISO 4141 1.5 = black/yellow/red/green/brown/blue; 2.5 = white	110.4	187
7027069	8 x 1,5 + 1 x 2,5	11.7	ISO 4141 + grey/violet	139.2	239
7027070	10 x 1,5 + 3 x 2,5 + 1x(2x1,5)	14.4	white with black numbers; 1.5 = no. 1 - 3, 5 - 8, 10 - 12; 2.5 = no. 4, 9, 13; 1.5 = no. 14, 15	244.8	391
7027010	10 x 1,5 + 3 x 2,5 + 1x(2x1,5)	14.4	ISO 12098	244.8	391
7027071	10 x 1,5 + 3 x 2,5	14.4	white with black numbers; 1.5 = no. 1 - 3, 5 - 8, 10 - 12; 2.5 = no. 4, 9, 13	216.0	367
7027035	2 x 0,75 + 2 x 1,5	7.2	0.75 = white-brown; 1.5 = yellow-green	43.2	85
7027017	5 x 1,5 + 2 x 2,5	10.3	1.5 = black/yellow/green/brown/blue; 2.5 = white/red	120.0	217
7027004	8 x 1,5 + 5 x 2,5	14.8	1.5 = yellow/blue/green/brown/red/black/pink/white-blue; 2.5 = white/orange/grey/white-black/white-red	235.2	360
7027073	9 x 1,5 + 4 x 2,5	14.8	white with black numbers; 1.5 = no. 2, 4 - 8, 10 - 12; 2.5 = no. 1, 3, 9, 13	225.6	352
7027074	4 x 6 + 1 x 1,5	13.7	1.5 = grey; 6.0 = brown/red/black/blue	244.8	352

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRUCK 470 P FLRY11Y



Benefits

- Special ADR approval
- ADR approval enables use in vehicles transporting hazardous goods

Application range

- Commercial vehicles
- Wiring of electrical equipments in all trailers and semi-trailers

Product features

- UV-resistant
- Resistant to cold temperatures
- Resistant to most oils, chemicals and weather conditions
- Resistant to hydrolysis and microbes

Approvals



- ISO 4141 and DIN/ISO 6722

Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- Special PVC-based inner sheath
- Outer sheath made of special polyurethane

Technical data

	Core identification code ISO 4141-3
	Insulation resistance 10 MΩm x km
	Capacity of data pairs Related to length between cores, max. 50 pF/m and between each data transmission core and all other cores in the cable, max. 100 pF/m
	Conductor stranding Fine wire according to DIN/ISO 6722
	Minimum bending radius 12 x outer diameter
	Nominal voltage 60 V
	Test voltage 5 kV rms for at least 5 min.
	Temperature range Fixed installation: -40°C to +85°C Area of application, Class A

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRUCK 470 P FLRY11Y					
7027080	2 x 1,0	6.0	white-black	19.2	55
7027081	2 x 1,0	6.0	white-brown	19.2	55
7027020	2 x 1,5	6.6	white-black	28.8	68
7027021	2 x 1,5	6.6	white-brown	28.8	68
7027082	3 x 1,0	6.3	black-brown-blue	28.8	67
7027022	3 x 1,0	6.3	white/brown/blue, newest ISO design	28.8	67
7027083	4 x 1,0	6.8	white/black/red/brown	38.4	81
7027038	4 x 1,5	7.5	white/black/red/brown	57.6	106
7027084	5 x 1,0	7.5	white/brown/green/red/grey	48.0	97
7027085	5 x 1,0 + 1 x 2,5	9.0	1.0 = green/brown/red/blue/violet; 2.5 = white	72.0	133
7027086	5 x 1,0 + 1 x 2,5	9.0	1.0 = yellow/black/red/blue/violet; 2.5 = white	72.0	133
7027025	5 x 1,0 + 1 x 2,5	9.0	1.0 = brown/green/red/grey/violet; 2.5 = white, newest ISO design	72.0	133
7027087	6 x 1,5 + 1 x 2,5	10.3	ISO 4141 1.5 = black/yellow/red/green/brown/blue; 2.5 = white	110.4	187
7027130	7 x 0,75	7.3	white/black/yellow/red/green/brown/blue	50.4	101
7027088	7 x 1,5	8.9	white/black/yellow/red/green/brown/blue	100.8	166
7027089	8 x 1,5 + 1 x 2,5	11.7	ISO 4141 + grey/violet	139.2	239
7027090	10x1,5+3x2,5+1x(2x1,5)	14.4	white with black numbers; 1.5 = no. 1 - 3, 5 - 8, 10 - 12; 2.5 = no. 4, 9, 13; 1.5 = no. 14, 15	244.8	391
7027030	10x1,5+3x2,5+1x(2x1,5)	14.4	ISO 12098	244.8	395
7027091	10x1,5+3x2,5	14.4	white with black numbers; 1.5 = no. 1 - 3, 5 - 8, 10 - 12; 2.5 = no. 4, 9, 13	216.0	367
7027031	10x1,5+3x2,5	14.4	1.5 = yellow/green/blue/black/brown/red/pink/grey/white-black/white-blue; 2.5 = white/orange/white-red	216.0	367
7027046	2 x 0,75 + 2 x 1,5	7.2	0.75 = white-brown; 1.5 = yellow-green	43.2	85
7027092	2 x 6 + 3 x 1,5 ABS	12.1	DIN 72570 6.0 = red/brown; 1.5 = black/yellow/white	158.4	267
7027093	2x6+3x1,5+1x(2x1,5) EBS	12.1	DIN 72570 6.0 = red/brown; 1.5 = black/yellow/white; 1.5 = white-grey/white-brown	187.2	321
7027094	2x4+3x1,5+1x(2x1,5) EBS	11.9	DIN 72570 4.0 = red/brown; 1.5 = black/yellow/white; 1.5 = white-grey/white-brown	148.8	257
7027024	18 x 1,5	13.7	white with black numbers	259.2	407
7027032	25 x 1,5	16.1	white with black numbers	360.0	560
7027079				672.0	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRUCK REFLEX FLRY11Y



Info

- Reflective

Benefits

- Fulfills the reflection values according to Art. 51a/7 of the German Road Traffic Licensing Regulation (StVZO) acc. to DIN 67520 Part 2 for long material trailers

Application range

- Commercial vehicles
- Long material trailers

Product features

- UV-resistant
- Resistant to cold temperatures
- Resistant to most oils, chemicals and weather conditions
- Resistant to hydrolysis and microbes

Approvals



- ISO 4141 and DIN/ISO 6722

Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- Retroreflective film wrapping
- Outer sheath made of special polyurethane

Technical data

- Core identification code**
ISO 4141-3
- Insulation resistance**
10 MOhm x km
- Capacity of data pairs**
Related to length between cores, max. 50 pF/m and between each data transmission core and all other cores in the cable, max. 100 pF/m
- Conductor stranding**
Fine wire according to DIN/ISO 6722
- Minimum bending radius**
12 x outer diameter
- Nominal voltage**
60 V
- Test voltage**
5 kV rms for at least 5 min.
- Temperature range**
Fixed installation: -40°C to +85°C
Area of application, Class A

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRUCK REFLEX FLRY11Y					
7027039	4 x 1,0	8.0	white/black/red/brown	38.4	85
7027040	7 x 1,5	9.9	white/black/yellow/red/green/brown/blue	100.8	163
7027043	10x1,5+3x2,5+1x(2x1,5)	15.4	white with black numbers; 1.5 = no. 1 - 3, 5 - 8, 10 - 12; 2.5 = no. 4, 9, 13; 1.5 = no. 14, 15	244.8	360

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRUCK 170 TWIN



Benefits

- Polarity identification is possible without stripping the sheath or external marking (the item designation is always printed on the positive pole). This rules out incorrect connections.
- No brushing of cores after stripping and therefore optimum subsequent handling, for example when crimping/contacting
- Special ADR approval

Application range

- Battery cable between the power source and the end user
- Commercial vehicles

Product features

- Double-sheathed version, extremely tough, for installation without corrugated tubing
- Very strong connection but offering easy separation of the cable by hand

Approvals



Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- Special PVC-based outer sheath

Technical data

- Insulation resistance**
10 MOhm x km
- Minimum bending radius**
15 x outer diameter
- Nominal voltage**
60 V DC
- Test voltage**
3000 V AC
- Temperature range**
Fixed installation: -40°C to +85°C
Area of application, Class A

Article number	Number of cores and mm ² per conductor	Outer dimensions, width x height (mm)	Copper index (kg/km)
ÖLFLEX® TRUCK 170 TWIN PVC/PVC			
7027055	PVC/PVC 2 x 6,0	15,2 x 7,1	115,2
7027056	PVC/PVC 2 x 10,0	18,8 x 8,9	192,0
7027057	PVC/PVC 2 x 16,0	21,0 x 10,0	307,2
7027058	PVC/PVC 2 x 25,0	25,6 x 12,3	480,0
7027059	PVC/PVC 2 x 35,0	28,4 x 13,5	672,0
7027054	PVC/PVC 2 x 50,0	33,0 x 16,0	960,0
7027052	PVC/PVC 2 x 70,0	39,8 x 18,4	1,344,0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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).
Details of the clamping force are available upon request, halogen-free.
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRAFFIC 3GKW

Single-core cable for more demanding requirements in railway applications



Info

- Meets the highest fire-protection requirements

Benefits

- High flexibility and slim diameters enable small bending radii for fixed installation
- Easy to strip and dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Extended temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railway vehicles and buses
- Suitable for connecting to fixed and moving objects such as lamps, heating equipment, electrical equipment, vehicle wiring, terminal boxes and power supplies

Product features

- Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - No toxic gases (EN 50305)
 - Low smoke density (IEC 61034)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-24)
 - Low fire load (DIN 51900)
- Chemical properties:
 - Oil and fuel resistance (EN 50305)
 - Ozone resistance (EN 50305)
 - No fluorine (EN 60684-2)

Approvals



Design

- Tinned-copper strand, fine-wire
- Electron beam cross-linked polyolefin copolymer insulation
- Colour: grey or green-yellow

Technical data

- Conductor stranding**
 Fine wire according to VDE 0295, class 5 (SRC = Special Round Conductor)
- Minimum bending radius**
 < 10 mm fixed installation > 3 x D
 Occasional movement > 5 x D
 > 10 mm fixed installation > 4 x D
 Occasional movement > 6 x D
- Nominal voltage**
 U_0/U AC 0.6/1 kV
 U_0/U DC 0.9/1.5 kV
- Test voltage**
 3,5 kV
- Temperature range**
 Fixed installation:
 -45 °C to +120 °C
 Occasional flexing:
 -35°C to +90°C
 Short circuit: +200°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Fire load (kWh/m)
ÖLFLEX® TRAFFIC 3GKW - grey					
4223293	0.5	2.0	4.8	8	0.014
4223294	0.75	2.2	7.2	11	0.017
4223295	1	2.4	9.6	14	0.020
4223296	1.5	2.7	14.4	21	0.023
4223297	2.5	3.4	24.0	31	0.034
4223298	4	3.9	38.4	46	0.040
4223299	6	4.4	57.6	66	0.047
4223300	10	5.3	96.0	106	0.059
4223301	16	7.0	154.0	164	0.081
4223302	25	8.4	240.0	238	0.124
4223303	35	9.5	336.0	330	0.142
4223304	50	11.9	480.0	483	0.200
4223305	70	14.1	672.0	674	0.262
4223306	95	15.4	912.0	883	0.288
4223307	120	17.4	1,152.0	1103	0.357
4223308	150	20.1	1,440.0	1370	0.480
ÖLFLEX® TRAFFIC 3GKW - green-yellow					
4223314	0.75	2.2	7.2	11	0.017
4223316	1.5	2.7	14.4	21	0.023
4223317	2.5	3.4	24.0	31	0.034
4223318	4	3.9	38.4	46	0.040
4223319	6	4.4	57.6	66	0.047
4223320	10	5.3	96.0	106	0.059
4223321	16	7.0	154.0	164	0.081
4223322	25	8.4	240.0	238	0.134
4223323	35	9.5	336.0	330	0.142
4223324	50	11.9	480.0	483	0.200
4223325	70	14.1	672.0	674	0.262

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAFFIC 4GKW-AXplus refer to page 143

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® TRAFFIC 3GKW flex

Multi-core cable for more demanding requirements in railway applications



Info

- Meets the highest fire-protection requirements

Benefits

- High flexibility and slim diameters enable small bending radii for fixed installation
- Easy to strip and dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Extended temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railway vehicles and buses
- Suitable for connecting to fixed and moving objects such as lamps, heating equipment, electrical equipment, vehicle wiring, terminal boxes and power supplies

Product features

- Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - No toxic gases (EN 50305)
 - Low smoke density (IEC 61034)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-24)
 - Low fire load (DIN 51900)
- Chemical properties:
 - Oil and fuel resistance (EN 50305)
 - Ozone resistance (EN 50305)
 - No fluorine (EN 60684-2)

Approvals



Design

- Tinned-copper strand, fine-wire
- Electron beam cross-linked polyolefin copolymer insulation
- Colour of core insulation: white with black printed numbers
- Outer sheath: electron beam cross-linked polyolefin copolymer
- Outer sheath colour: black

Technical data

- Conductor stranding**
Fine wire according to VDE 0295, class 5 (SRC = Special Round Conductor)
- Minimum bending radius**
< 10 mm fixed installation > 3 x D
Occasional movement > 5 x D
> 10 mm fixed installation > 4 x D
Occasional movement > 6 x D
- Nominal voltage**
U₀/U AC 0.6/1 kV
U₀/U DC 0.9/1.5 kV
- Test voltage**
4 kV
- Temperature range**
Fixed installation:
-45 °C to +120 °C
Occasional flexing:
-35 °C to +90 °C
Short circuit: +200 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Fire load (kWh/m)
ÖLFLEX® TRAFFIC 3GKW flex					
4223395	2 X 0.5	5.5	9.6	40	0.130
4223396	3 X 0.5	5.7	14.4	50	0.130
4223397	4 X 0.5	6.3	19.2	62	0.160
4223398	5 X 0.5	6.9	24.0	74	0.190
4223399	7 X 0.5	8.2	33.6	102	0.250
4224460	10 X 0.5	9.3	48.0	125	0.286
4223400	2 X 0.75	6.0	14.4	49	0.150
4223401	3 X 0.75	6.2	21.6	63	0.150
4223402	4 X 0.75	6.9	28.8	78	0.180
4223403	5 X 0.75	7.7	36.0	97	0.220
4223404	7 X 0.75	9.1	50.4	131	0.290
4223405	2 X 1.0	6.4	19.2	60	0.150
4223406	3 X 1.0	6.8	28.8	78	0.180
4223407	4 X 1.0	7.4	38.4	95	0.210
4223408	5 X 1.0	8.3	48.0	119	0.260
4223409	7 X 1.0	9.9	67.2	163	0.350
4223410	2 X 1.5	7.1	28.8	75	0.220

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Fire load (kWh/m)
4223411	3 X 1.5	7.4	43.2	96	0.210
4223412	3 G 1.5	7.4	43.2	96	0.210
4223413	4 X 1.5	8.3	57.6	120	0.250
4223414	4 G 1.5	8.3	57.6	120	0.250
4223415	5 X 1.5	9.1	72.0	146	0.310
4223416	7 X 1.5	11.1	108.0	207	0.410
4224512	12 X 1.5	13.4	172.8	305	0.540
4223417	2 X 2.5	8.5	48.0	115	0.240
4223418	3 X 2.5	8.9	72.0	149	0.280
4223419	3 G 2.5	8.9	72.0	149	0.280
4223420	4 X 2.5	9.9	96.0	183	0.350
4223421	4 G 2.5	9.9	96.0	183	0.350
4223422	5 X 2.5	11.1	120.0	235	0.430
4223423	7 X 2.5	13.0	168.0	309	0.560
4223425	3 X 4	10.2	115.0	210	0.360
4223426	3 G 4	10.2	115.0	210	0.360
4223427	4 X 4	11.3	154.0	266	0.430
4223428	5 X 4	12.6	192.0	330	0.530

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAFFIC 3GKW C-flex refer to page 142

ÖLFLEX® TRAFFIC 3GKW C-flex

Screened multi-core cable for additional requirements in railway applications

LAPP KABEL STUTTGART ÖLFLEX® TRAFFIC 3GKW C-flex



Info

- Screened to comply with EMC

Benefits

- Copper screening complies with EMC requirements and protects against electromagnetic interference
- High flexibility and slim diameters enable small bending radii for fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Extended temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railway vehicles and buses
- Suitable for connecting to fixed and moving objects such as lamps, heating equipment, electrical equipment, vehicle wiring, terminal boxes and power supplies

Product features

- Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - No toxic gases (EN 50305)
 - Low smoke density (IEC 61034)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-24)
 - Low fire load (DIN 51900)
- Chemical properties:
 - Oil and fuel resistance (EN 50305)
 - Ozone resistance (EN 50305)
 - No fluorine (EN 60684-2)

Approvals



Design

- Tinned-copper strand, fine-wire
- Electron beam cross-linked polyolefin copolymer insulation
- Colour of core insulation: white with black printed numbers
- Tinned-copper braiding
- Outer sheath: electron beam cross-linked polyolefin copolymer
- Outer sheath colour: black

Technical data

- Conductor stranding**
 Fine wire according to VDE 0295, class 5 (SRC = Special Round Conductor)
- Minimum bending radius**
 < 10 mm fixed installation > 5 x D
 Occasional movement > 7 x D
 > 10 mm fixed installation > 6 x D
 Occasional movement > 8 x D
- Nominal voltage**
 U_0/U AC 0.6/1 kV
 U_0/U DC 0.9/1.5 kV
- Test voltage**
 Core/Core: 4 kV
 Core/Screen: 4 kV
- Temperature range**
 Fixed installation:
 -45 °C to +120 °C
 Occasional flexing:
 -35 °C to +90 °C
 Short circuit: +200 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Fire load (kWh/m)
ÖLFLEX® TRAFFIC 3GKW C-flex					
4223441	2 X 0.5	6.1	28.4	56	0.120
4223442	3 X 0.5	6.4	34.9	65	0.110
4223443	4 X 0.5	7.1	43.3	81	0.140
4223444	5 X 0.5	7.7	48.9	94	0.180
4223445	7 X 0.5	8.9	63.7	127	0.240
4223446	10 X 0.5	10.0	82.5	156	0.280
4223447	12 X 0.5	10.5	93.9	177	0.320
4223448	2 X 0.75	6.7	35.8	69	0.140
4223449	3 X 0.75	7.0	43.9	79	0.130
4223450	4 X 0.75	7.7	53.7	98	0.170
4223451	5 X 0.75	8.4	66.0	119	0.200
4223452	7 X 0.75	10.0	84.9	164	0.290
4223453	10 X 0.75	11.1	111.0	199	0.330
4223454	12 X 0.75	11.6	127.0	225	0.370
4223455	2 X 1.0	7.1	43.3	82	0.140
4223456	3 X 1.0	7.5	53.7	83	0.140
4223457	4 X 1.0	8.2	68.4	117	0.190
4223458	5 X 1.0	9.0	79.0	139	0.220
4223459	7 X 1.0	10.6	104.0	193	0.330
4223460	2 X 1.5	7.7	54.5	100	0.180
4223461	3 X 1.5	8.1	73.2	114	0.170
4223462	3 G 1.5	8.1	73.2	114	0.170
4223463	4 X 1.5	8.9	88.6	139	0.210
4223464	5 X 1.5	9.9	106.5	173	0.290
4223465	5 G 1.5	9.9	106.5	173	0.290
4223466	7 X 1.5	11.7	145.9	243	0.390
4223467	2 X 2.5	8.9	79.0	133	0.270
4223468	3 X 2.5	9.4	104.7	155	0.210
4223469	3 G 2.5	9.4	104.7	155	0.210
4223470	4 X 2.5	10.5	133.1	200	0.290
4223471	5 X 2.5	11.6	165.1	250	0.390
4223472	5 G 2.5	11.6	165.1	250	0.390
4223473	7 X 2.5	13.7	217.3	345	0.530
4223475	3 X 4	10.8	153.2	216	0.270
4223476	3 G 4	10.8	153.2	216	0.270
4223477	4 X 4	11.9	198.7	279	0.360
4223478	5 X 4	13.4	240.0	353	0.450

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRAFFIC 4GKW-AXplus

Single-core power cable for increased voltage ratings



Info

- Voltage rating 1.8/3 kV
- Cold-resistant to -60°C

Benefits

- High electrical strength and mechanical durability due to dual-layer cable construction
- High flexibility and slim diameters enable small bending radii for fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Good chemical-resistance and high flammability rating
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railway vehicles and buses
- For connecting stationary and moving parts
- Suitable for cabling of control cabinets, distributors, converters, panel units and blocks, and resistance and braking blocks

Product features

- Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - No toxic gases (EN 50305)
 - Low smoke density (IEC 61034)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-24)
 - Low fire load (DIN 51900)
- Chemical properties:
 - Oil and fuel resistance (EN 50305)
 - Ozone resistance (EN 50305)
 - No fluorine (EN 60684-2)

Approvals



Design

- Tinned-copper strand, fine-wire
- Insulation: cross-linked polyolefin copolymer
- Outer sheath: electron beam cross-linked elastomer
- Outer sheath colour: black

Technical data

- Conductor stranding**
Fine wire according to VDE 0295, class 5 (SRC = Special Round Conductor)
- Minimum bending radius**
< 10 mm fixed installation > 5 x D
Occasional movement > 7 x D
> 10 mm fixed installation > 6 x D
Occasional movement > 8 x D
- Nominal voltage**
U₀/U AC 1.8/3 kV
U₀ DC 2.7 kV
- Test voltage**
6.5 kV AC
- Temperature range**
Fixed installation:
-60°C to +120°C
Occasional flexing:
-35°C to +90°C
Short circuit: +200°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Fire load (kWh/m)
ÖLFLEX® TRAFFIC 4GKW-AXplus					
4222082	1.5	3.3	14.4	24	0.040
4222083	2.5	3.7	24.0	34	0.040
4222084	4	4.5	38.4	53	0.060
4222085	6	5.0	57.6	74	0.080
4222086	10	6.1	96.0	118	0.100
4222087	16	8.3	153.6	182	0.170
4222088	25	10.0	240.0	274	0.250
4222089	35	11.4	336.0	379	0.310
4222090	50	13.6	480.0	536	0.390
4222091	70	15.6	672.0	729	0.450
4222092	95	17.3	912.0	960	0.560
4222093	120	19.6	1,152.0	1203	0.710
4222094	150	21.9	1,440.0	1464	0.800
4222095	185	23.8	1,776.0	1802	0.930
4222096	240	26.8	2,304.0	2348	1.160

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAFFIC 4GKW-AXplus C-flex refer to page 144

ÖLFLEX® TRAFFIC 4GKW-AXplus C-flex

Screened single core power cable for increased voltage ratings

LAPP KABEL STAHLHART ÖLFLEX® TRAFFIC 4GKW-AX plus C-flex



Info

- Voltage rating 1.8/3 kV
- Cold-resistant to -60°C
- Screened to comply with EMC

Benefits

- High electrical strength and mechanical durability due to dual-layer cable construction
- Copper screening complies with EMC requirements and protects against electromagnetic interference
- High flexibility and slim diameters enable small bending radii for fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Good chemical-resistance and high flammability rating

Application range

- For fixed and protected installations inside or outside of railway vehicles and buses
- For connecting stationary and moving parts
- Suitable for cabling of control cabinets, distributors, converters, panel units and blocks, and resistance and braking blocks

Product features

- Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - No toxic gases (EN 50305)
 - Low smoke density (IEC 61034)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-24)
 - Low fire load (DIN 51900)
- Chemical properties:
 - Oil and fuel resistance (EN 50305)
 - Ozone resistance (EN 50305)
 - No fluorine (EN 60684-2)

Approvals



Design

- Tinned-copper strand, fine-wire
- Insulation: cross-linked polyolefin copolymer
- Inner sheath: electron beam cross-linked elastomer, black
- Tinned-copper braiding
- Outer sheath: electron beam cross-linked elastomer
- Outer sheath colour: black

Technical data

- Conductor stranding**
Fine wire according to VDE 0295, class 5 (SRC = Special Round Conductor)
- Minimum bending radius**
< 10 mm fixed installation > 5 x D
Occasional movement > 7 x D
> 10 mm fixed installation > 6 x D
Occasional movement > 8 x D
- Nominal voltage**
U₀/U AC 1.8/3 kV
U₀DC 2.7 kV
- Test voltage**
6.5 kV AC
- Temperature range**
Fixed installation:
-60°C to +120°C
Occasional flexing:
-35°C to +90°C
Short circuit: +200°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Fire load (kWh/m)
ÖLFLEX® TRAFFIC 4GKW-AXplus C-flex					
4223336	1.5	4.9	25.1	47	0.080
4223337	2.5	5.5	35.6	62	0.100
4223338	4	6.7	59.8	95	0.140
4223339	6	7.4	81.6	123	0.160
4223340	10	8.5	126.0	178	0.210
4223341	16	10.7	192.0	261	0.320
4223342	25	12.5	285.0	371	0.430
4223343	35	14.0	387.0	492	0.530
4223344	50	16.5	562.0	693	0.660
4223345	70	18.6	766.0	913	0.780
4223346	95	20.3	1,019.0	1165	0.910
4223347	120	22.8	1,268.0	1441	1.140
4223348	150	25.1	1,572.0	1730	1.280
4223349	185	27.0	1,917.0	2088	1.450
4223350	240	30.2	2,504.0	2709	1.740
4223351	300	32.8	3,099.0	3329	2.030
4223352	400	37.1	4,088.0	4250	2.420

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAFFIC 4GKW-AXplus refer to page 143

ÖLFLEX®
UNITRONIC®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
SILVYN®
FLEXIMARK®
ACCESSORIES
APPENDIX

New

ÖLFLEX® SOLAR XLR-R

The new generation of electron beam cross-linked solar cables with reduced diameters - TÜV type approved



Info

- TÜV Type approved (2PFG 1169/08.07) According to DKE specification PV1-F
- Optimised cable design - thin, light and robust
- Substitutes version XLR und XLR TF



Benefits

- Reduced outer diameters enable space and weight saving installation
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- Robust against mechanical impacts
- Colour-coding of the core insulation simplifies the differentiation of the polarity during installation
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For the cabling between the solar modules and as an extension cable between the individual module strings or DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- For the cabling of flexible or building-integrated photovoltaic systems

Product features

- Excellent weather, temperature and UV-resistance
- Good notch and abrasion resistance
- Good heat pressure resistance
- Halogen-free and flame-retardant
- XLR-R = X-Linked Radiated-Reduced Proven electron beam cross-linked quality

Approvals



- TÜV Type approved (2PFG 1169/08.07)
- Halogen-free according to EN 50267-2-1/-2
- Ozone-resistant according to EN 50396
- Weather/UV-resistant acc. to HD 605/A1
- Acid and alkali-resistant acc. EN 60811-2-1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Colour of core insulation: white, red or blue
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data

DIN VDE Approvals
PV1-F (TÜV type approved according to 2 PFG 1169/08.2007)

Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)

Test voltage
AC 6500 V

Current rating
Im compliance with TÜV requirements spec. 2 PFG 1169/08.2007 table 1

Temperature range
-40°C to +120°C max. conductor temperature based on EN 60216-1
Ambient temperature range according to TÜV 2 PFG 1169/08.2007: -40°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLR-R				
Core insulation: white / Outer sheath: black				
0023175	1.5	4.4	14.4	34
0023176	2.5	4.8	24.0	46
0023177	4.0	5.2	38.4	63
0023178	6.0	5.8	57.6	86
0023179	10.0	7.0	96.0	132
0023180	16.0	8.3	153.6	197
Core insulation: red / Outer sheath: black				
0023186	1.5	4.4	14.4	34
0023187	2.5	4.8	24.0	46
0023188	4.0	5.2	38.4	63
0023189	6.0	5.8	57.6	86
0023190	10.0	7.0	96.0	132
0023191	16.0	8.3	153.6	197
Core insulation: blue / Outer sheath: black				
0023192	1.5	4.4	14.4	34
0023193	2.5	4.8	24.0	46
0023194	4.0	5.2	38.4	63
0023195	6.0	5.8	57.6	86
0023196	10.0	7.0	96.0	132
0023197	16.0	8.3	153.6	197

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EPIC® SOLAR 4 Thin M pre-assembled refer to page 640
- Universal strip stripping and cutting tool refer to page 906
- KS 20 cable shears refer to page 904
- EPIC® SOLAR 4 THIN F pre-assembled refer to page 640

ÖLFLEX® SOLAR XLR

Electron beam cross-linked solar cables according to the PV1-F design



Info

- TÜV Type approved (2PFG 1169/08.07)
- Please note: Discontinued product!
- For a future alternative product see ÖLFLEX® SOLAR XLR-R

Benefits

- High thermal capacity for long-lasting operation of the PV system in all seasons
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- Colour-coding of the core insulation simplifies the differentiation of the polarity during installation
- Robust against mechanical impacts
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For the cabling between the solar modules and as an extension cable between the individual module strings or DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- For the cabling of flexible or building-integrated photovoltaic systems

Product features

- Excellent weather, temperature and UV-resistance
- Good notch and abrasion resistance
- Good heat pressure resistance
- Halogen-free and flame-retardant
- XLR = X-Linked Radiated
Proven electron beam cross-linked quality

Approvals



- TÜV Type approved (2PFG 1169/08.07)
- Halogen-free according to EN 50267-2-1/-2
- Ozone-resistant according to EN 50396
- Weather/UV-resistant acc. to HD 605/A1
- Acid and alkali-resistant acc. EN 60811-2-1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Colour of core insulation: black, red or blue
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data



Approvals
PV1-F (TÜV type approved according to 2 PFG 1169/08.2007)



Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius
Fixed installation: 4 x outer diameter



Nominal voltage
AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)



Test voltage
AC 6500 V



Current rating
Im compliance with TÜV requirements spec. 2 PFG 1169/08.2007 table 1



Temperature range
-40°C to +120°C max. conductor temperature based on EN 60216-1
Ambient temperature range according to TÜV 2 PFG 1169/08.2007: -40°C to +90°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLR				
Core insulation: black / Outer sheath: black				
0025906	2.5	6.0	24.0	58
0025907	4.0	6.5	38.4	77
0025908	6.0	7.1	57.6	102
0025909	10.0	8.9	96.0	163
0025910	16.0	9.8	153.6	225
Core insulation: red / Outer sheath: black				
0025912	2.5	6.0	24.0	58
0025913	4.0	6.5	38.4	77
0025914	6.0	7.1	57.6	102
0025915	10.0	8.9	96.0	163
0025916	16.0	9.8	153.6	225
Core insulation: blue / Outer sheath: black				
0025918	2.5	6.0	24.0	58
0025919	4.0	6.5	38.4	77
0025920	6.0	7.1	57.6	102
0025921	10.0	8.9	96.0	163
0025922	16.0	9.8	153.6	225

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

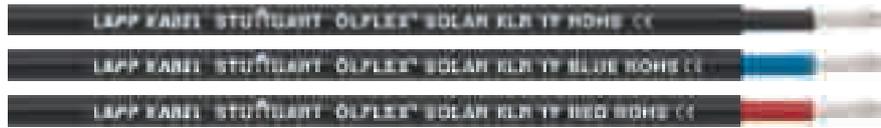
- ÖLFLEX® SOLAR XLR-R refer to page 145
- ÖLFLEX® SOLAR XLR TF refer to page 147

Accessories

- EPIC® SOLAR 4 Thin M pre-assembled refer to page 640
- Universal strip stripping and cutting tool refer to page 906
- KS 20 cable shears refer to page 904
- EPIC® SOLAR 4 THIN F pre-assembled refer to page 640

ÖLFLEX® SOLAR XLR TF

Electron beam cross-linked solar cables according to the PV1-F design



Info

- TÜV Type approved (2PFG 1169/08.07)
- Please note: Discontinued product!
- For a future alternative product see ÖLFLEX® SOLAR XLR-R

Benefits

- Reduced outer diameters enable space and weight saving installation
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- Colour-coding of the core insulation simplifies the differentiation of the polarity during installation
- High thermal capacity for long-lasting operation of the PV system in all seasons
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For the cabling between the solar modules and as an extension cable between the individual module strings or DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- For the cabling of flexible or building-integrated photovoltaic systems

Product features

- Excellent weather, temperature and UV-resistance
- Good notch and abrasion resistance
- Good heat pressure resistance
- Halogen-free and flame-retardant
- XLR = X-Linked Radiated
Proven electron beam cross-linked quality

Approvals



- TÜV Type approved (2PFG 1169/08.07)
- Halogen-free according to EN 50267-2-1/-2
- Ozone-resistant according to EN 50396
- Weather/UV-resistant acc. to HD 605/A1
- Acid and alkali-resistant acc. EN 60811-2-1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Colour of core insulation: black, red or blue
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data

DIN VDE Approvals
PV1-F (TÜV type approved according to 2 PFG 1169/08.2007)

Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
AC U₀/U : 600/1000 V
DC U₀/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)

Test voltage
AC 6500 V

Current rating
Im compliance with TÜV requirements spec. 2 PFG 1169/08.2007 table 1

Temperature range
-40°C to +120°C max. conductor temperature based on EN 60216-1
Ambient temperature range according to TÜV 2 PFG 1169/08.2007: -40°C to +90°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLR TF				
Core insulation: black / Outer sheath: black				
0025905	1,5	5,4	14,4	43
0025923	2,5	5,4	24,0	51
0025943	4,0	6,0	38,4	70
Core insulation: red / Outer sheath: black				
0025911	1,5	5,4	14,4	43
0025926	2,5	5,4	24,0	51
0025946	4,0	6,0	38,4	70
Core insulation: blue / Outer sheath: black				
0025917	1,5	5,4	14,4	43
0025927	2,5	5,4	24,0	51
0025947	4,0	6,0	38,4	70

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SOLAR XLR-R refer to page 145

Accessories

- EPIC® SOLAR 4 Thin M pre-assembled refer to page 640
- Universal strip stripping and cutting tool refer to page 906
- KS 20 cable shears refer to page 904
- EPIC® SOLAR 4 THIN F pre-assembled refer to page 640

New

ÖLFLEX® SOLAR XLS-R

Electron beam cross-linked solar cables with reduced outer diameters



Info

- Optimised cable design - thin, light and robust

Benefits

- Reduced outer diameters enable space and weight saving installation
- Robust against mechanical impacts
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- Colour-coding of the core insulation simplifies the differentiation of the polarity during installation
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For the cabling between the solar modules and as an extension cable between the individual module strings or DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- Flexible photovoltaic modules

Product features

- Weather, abrasion and UV-resistant
- Good heat pressure resistance
- Halogen-free and flame-retardant
- XLS-R = X-Linked Standard - Reduced Proven electron beam cross-linked quality
- Red and blue outer sheaths are also available upon request

Approvals



- Flame-retardant according to IEC 60332.1.2
- Halogen-free according to EN 50267-2-1/-2
- Ozone-resistant according to EN 50396
- Weather/UV-resistant acc. to HD 605/A1
- Acid and alkali-resistant acc. EN 60811-2-1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Colour of core insulation: white, red or blue
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data

- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Fixed installation: 4 x outer diameter
- Nominal voltage**
AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)
- Test voltage**
AC 6500 V
- Temperature range**
Fixed installation:
-40 °C to +100 °C max. conductor temperature

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLS-R				
Core insulation: white / Outer sheath: black				
0023100	1.5	4.4	14.4	34
0023136	2.5	4.8	24.0	46
0023137	4.0	5.2	38.4	63
0023138	6.0	5.8	57.6	86
0023104	10.0	7.0	96.0	132
0023105	16.0	8.3	153.6	197
Core insulation: red / Outer sheath: black				
0023139	1.5	4.4	14.4	34
0023141	2.5	4.8	24.0	46
0023142	4.0	5.2	38.4	63
0023114	6.0	5.8	57.6	86
0023115	10.0	7.0	96.0	132
0023116	16.0	8.3	153.6	197
Core insulation: blue / Outer sheath: black				
0023117	1.5	4.4	14.4	34
0023118	2.5	4.8	24.0	46
0023119	4.0	5.2	38.4	63
0023120	6.0	5.8	57.6	86
0023143	10.0	7.0	96.0	132
0023144	16.0	8.3	153.6	197

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SOLAR XLR-R refer to page 145

Accessories

- EPIC® SOLAR 4 Thin M pre-assembled refer to page 640
- Universal strip stripping and cutting tool refer to page 906
- KS 20 cable shears refer to page 904
- EPIC® SOLAR 4 THIN F pre-assembled refer to page 640

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New

ÖLFLEX® SOLAR XLR 4703

UL-listed solar cables according to NEC for use in North America



Info

- According to UL Subject 4703 Type PV Wire
- 2000 V version on request

Benefits

- Standard-compliant application for exposed wiring of PV systems in North America in compliance with US NFPA 70 NEC article 690.31 (National Electrical Code)
- High thermal capacity for long-lasting operation of the PV system in all seasons
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- Robust against mechanical impacts
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For the cabling between the solar modules and as an extension cable between the individual module strings or DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks

Product features

- Excellent weather, temperature and UV-resistance
- Good notch and abrasion resistance
- Good heat pressure resistance
- Halogen-free and flame-retardant
- XLR = X-Linked Radiated
Proven electron beam cross-linked quality

Approvals



- According to UL Subject 4703 Type PV Wire
- Halogen-free according to EN 50267-2-1/-2
- Flame-retardant according to IEC 60332-1-2, UL VW-1, Vertical Flame Test FV-1, CSA FT 2
- Ozone-resistant according to EN 50396
- Weather/UV-resistant acc. to HD 605/A1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Colour of core insulation: red
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data



Approvals

UL PV-Wire listed (Photovoltaic Wire) according to UL Subject 4703



Conductor stranding

Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius

Fixed installation: 4 x outer diameter



Nominal voltage

AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)
According to UL: 600 V



Test voltage

AC 6500 V



Temperature range

Fixed installation: -40 °C to +120 °C
According to UL: -40 °C to +90 °C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLR 4703 600V				
Core insulation: red / Outer sheath: black				
0027130	2.5	5.9	24.0	55
0027133	4.0	6.3	38.4	69
0027136	6.0	6.9	57.6	92
0027139	10.0	8.9	96.0	158
0027142	16.0	10.2	153.6	228

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

Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m

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

Accessories

- EPIC® SOLAR 4 Thin M pre-assembled refer to page 640
- Universal strip stripping and cutting tool refer to page 906
- KS 20 cable shears refer to page 904
- EPIC® SOLAR 4 THIN F pre-assembled refer to page 640

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ÖLFLEX® SOLAR XLSv

Robust solar cables with large conductor cross-sections



Info

- Reinforced outer sheath design
- For high electrical power loads
- Suitable for direct burial

Benefits

- Reinforced outer sheath gives enhanced protection against mechanical stress
- High thermal capacity for long-lasting operation of the PV system in all seasons
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- For outdoor use, and if the general installation guidelines are followed, this is also suitable for direct burial
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For connecting individual module strings, as well as for fixed solar generators and moving tracking systems
- Photovoltaic plants and solar parks
- Large conductor cross sections are used as a collecting main to transmit high power loads between the individual panel strings and as connection to the DC/AC inverter of large PV plants and solar fields

Product features

- Good weather, abrasion, temperature and UV-resistance
- Good heat pressure resistance
- Halogen-free and flame-retardant
- XLS - X-Linked Standard
Proven electron beam cross-linked quality

Approvals



- Weather/UV-resistant acc. to HD 605/A1
- Flame-retardant according to IEC 60332.1.2
- Halogen-free according to IEC 60754-1
- Ozone-resistant according to EN 50396
- Acid and alkali-resistant acc. EN 60811-2-1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data



Core identification code
Black



Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5



Minimum bending radius
Fixed installation: 4 x outer diameter



Nominal voltage
AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)



Test voltage
AC 6500 V



Temperature range
Fixed installation:
-40 °C to +100 °C max. conductor temperature

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLSv				
0027110	4.0	8.0	38.4	104
0027111	6.0	9.1	57.6	141
0027112	10.0	10.5	96.0	201
0027113	16.0	11.9	153.6	280
0027114	25.0	13.2	240.0	386
0027115	35.0	14.5	336.0	502
0027116	50.0	17.7	480.0	698
0027117	70.0	19.7	672.0	921

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

Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m

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

On request and under consideration of the economic minimum lengths, we produce versions with larger conductor cross sections, or with red or blue core insulation, or an imprinted code stripe on the black outer sheath as distinctive feature

Similar products

- ÖLFLEX® TRAF0 XLv 1.8/3 kV refer to page 151

Accessories

- Tube cable lugs KR/ KRT/ KRF refer to page 927
- WT 3195 G pressing pliers, hydraulic refer to page 929
- V 1311 pressing pliers, hydraulic refer to page 930
- Cable shears KT 4 and KT 5 refer to page 904

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New

ÖLFLEX® TRAF0 XLv 1.8/3 kV

Flexible and mechanically robust single-core connection cables



Info

- Voltage rating 1.8/3 kV
- Suitable for direct burial
- Halogen-free and flame-retardant



Benefits

- Reinforced outer sheath gives enhanced protection against mechanical stress
- Wide temperature range for applications in harsh climatic environments
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- For outdoor use, and if the general installation guidelines are followed, this is also suitable for direct burial
- Flexible and fine-wired conductor design enables easy on-site installation

Application range

- Applications with voltage rating 1.8/3 kV
- In the field of renewable energy and conventional power generation
- Photovoltaic plants and solar parks
- Drip-loop installation in wind turbines
- As connection between the converter and the transformer substation

Product features

- Good weather, abrasion, temperature and UV-resistance
- Good heat pressure resistance
- Halogen-free and flame-retardant
- Torsion-tested for wind turbines

Approvals



- Weather/UV-resistant acc. to HD 605/A1
- Flame-retardant according to IEC 60332.1.2
- Halogen-free according to IEC 60754-1
- Ozone-resistant according to EN 50396
- Direct burial according to UL 1277

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: cross-linked polyolefin
- Outer sheath: cross-linked copolymer
- Core insulation and outer sheath are extruded together
- Outer sheath colour: black

Technical data

- Core identification code**
Black
- Fire test**
Flame-retardant according to IEC 60332-1-2
- 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: 5 x outer diameter
- Nominal voltage**
U₀/U: 1.8/3 kV
- Test voltage**
AC 6500 V
- Temperature range**
Flexing: -40 °C to +90 °C
Fixed installation: -40 °C to +90 °C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAF0 XLv 1.8/3 kV				
1151010	95.0	22.1	912.0	1218
1151011	120.0	24.4	1,152.0	1496
1151012	150.0	25.9	1,440.0	1810
1151013	185.0	28.2	1,776.0	2184
1151014	240.0	30.3	2,304.0	2757
1151015	300.0	34.0	2,880.0	3407

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

Copper price basis: EUR 150/100kg. Refer to 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: Drum

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

Similar products

- ÖLFLEX® SOLAR XLSv refer to page 150

Accessories

- Tube cable lugs KR/ KRT/ KRF refer to page 927
- WT 3195 G pressing pliers, hydraulic refer to page 929
- V 1311 pressing pliers, hydraulic refer to page 930
- Cable shears KT 4 and KT 5 refer to page 904

New

ÖLFLEX® SOLAR XLS-R T

Electron beam cross-linked solar twin-cables



Info

- Time-saving installation
- Ideal for stand-alone PV power systems
- Optimised cable design - thin, light and robust

Benefits

- Time-saving installation
- Reduced outer diameters enable space and weight saving installation
- Robust against mechanical impacts
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- Ideal for stand-alone PV power systems
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- Flexible photovoltaic modules

Product features

- Weather, abrasion and UV-resistant
- Good heat pressure resistance
- Halogen-free and flame-retardant
- Easy to split into two separate cables
- XLS-R T= X-Linked Standard-Reduced Twin Proven electron beam cross-linked quality

Approvals



- Flame-retardant according to IEC 60332.1.2
- Halogen-free according to EN 50267-2-1/-2
- Ozone-resistant according to EN 50396
- Weather/UV-resistant acc. to HD 605/A1
- Acid and alkali-resistant acc. EN 60811-2-1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: electron beam cross-linked copolymer
- Outer sheath: electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data

Core identification code
Black/red
blue/red

Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)

Test voltage
AC 6500 V

Temperature range
Fixed installation:
-40 °C to +100 °C max. conductor temperature

Article number	Number of cores and mm ² per conductor	Outer dimensions, width x height (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLS-R T				
Core insulation: red/black				
0023982	2 X 2.5	9.9 x 4.8	48.0	94
0023984	2 X 4.0	10.7 x 5.2	76.8	128
0023986	2 X 6.0	11.9 x 5.8	115.2	174
0023988	2 X 10.0	14.3 x 7.0	192.0	267
Core insulation: blue/red				
0023983	2 X 2.5	9.9 x 4.8	48.0	94
0023985	2 X 4.0	10.7 x 5.2	76.8	128
0023987	2 X 6.0	11.9 x 5.8	115.2	174
0023989	2 X 10.0	14.3 x 7.0	192.0	267

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SOLAR XLS-R refer to page 148

Accessories

- EPIC® SOLAR 4 Thin M pre-assembled refer to page 640
- Universal strip stripping and cutting tool refer to page 906
- KS 20 cable shears refer to page 904
- EPIC® SOLAR 4 THIN F pre-assembled refer to page 640

ÖLFLEX® SOLAR V4A

Extra robust solar cables with high-grade steel protection braiding



Info

- Protected against martens, rodents and termites

Benefits

- High-grade stainless steel wire braiding (class V4A) provides highly effective protection against martens, rodents and even termites
- Robust against mechanical impacts
- Reduction of flame propagation as well as of toxic combustion gases in the event of fire

Application range

- For use in PV systems that are installed on the roofs of stables or barns situated in farmsteads or densely-forested areas
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks

Product features

- Weather, abrasion and UV-resistant
- Halogen-free and flame-retardant
- Good heat pressure resistance

Approvals



- Flame-retardant according to IEC 60332.1.2
- Halogen-free according to EN 50267-2-1/-2
- Weather/UV-resistant acc. to HD 605/A1

Design

- Conductor: fine-wire tinned-copper strands
- Core insulation: Cross-linked polymer
- Outer sheath: special polymer
- Outer sheath colour: black
- Armouring: high-grade stainless steel wire braiding (V4A)

Technical data

- Core identification code**
Black
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
- Minimum bending radius**
Fixed installation: 5 x outer diameter
- Nominal voltage**
AC U_0/U : 600/1000 V
DC U_0/U : 900/1500 V
Max. permissible operating voltage: DC 1,8 kV (Conductor-conductor, non earthed system)
- Test voltage**
AC 6500 V
- Temperature range**
Fixed installation:
-40 °C to +100 °C max. conductor temperature

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR V4A stainless steel				
0025960	4.0	7.0	38.4	98
0025961	6.0	8.0	57.6	158

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 100 m; Drum (500; 1000) m
 Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TORSION

Power and control cables for flexible use under torsional load - 0.6/1 kV

Benefits

- Cost-effective alternative to the halogen-free, highly flame-retardant and enhanced oil-resistant ÖLFLEX® TORSION FRNC version with improved characteristics in the event of a fire
- The special design reliably compensates for the permanent torsional movements inside the wind turbine between the nacelle and the tower
- The high flexibility and good dismantling and stripping properties enable easy space-saving cable installation and fast processing

Application range

- For fixed and flexible installations, as well as for applications with torsional movements (e.g. machinery, wind turbines)
- Very suitable for installation in the loop, between the rotating nacelle and the stationary windmill tower, to connect the generator to the control units
- As a torsionally moved cable for use in North America with UL WTTT Listing (Wind Turbine Tray Cable), we recommend ÖLFLEX® FORTIS, which complies with the NFPA 79 standard and UL 2277 and UL 6140 outline

Product features

- Torsion-resistant up to ±150°/m
- Flame-retardant according to IEC 60332-1-2, VW-1, FT1
- Flexible at cold temperatures (IEC 60811/VDE 0473-811), 90 °C compounds according to UL
- Oil-resistant according to IEC 60227-1 PVC/ST9, salt-water immersion test according to UL 1309

- UV-resistant according to ISO 4892-2-2006, method A, and ozone-resistant according to EN 50396, method B

Approvals



- Use of leading, European metric stranded conductors according to the IEC scale for conductor nominal cross-sections in mm² according to IEC 60228/VDE 0295, braided conductor class 6 (tinned): For converting to AWG, odd-numbered nominal AWG cross-sections must be excluded. The next lowest nominal AWG conductor cross-section in mm² must then be allocated to the metric nominal conductor cross-section in mm² (according to IEC 60228) (please refer to the technical catalogue appendix T16). This is to ensure that the normative current rating defined by the nominal AWG conductor cross-section does not exceed the physical/real current rating defined by the nominal IEC conductor cross-section that is actually used

Design

- Extra-fine wire conductor made of bare copper
- Core insulation made of special PVC compound: flexible at cold temperatures according to IEC 60811-1-4/VDE 0473-811-1-4, 90 °C according to UL
- Use of talcum
- Core connection optimised for high torsion requirements, twisted in layers
- Special PVC-based outer sheath: flexible at cold temperatures according to IEC 60811-1-4/VDE 0473-811-1-4, 90 °C according to UL
- Outer sheath colour: black



Info

- Torsion-resistant, high mechanical flexibility, flexible at cold temperatures/90 °C(UL)
- Can be used in the cable loop underneath the nacelle
- Salt-water test, UV/ozone-resistant

Technical data



Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Approvals
UL AWM (UL 758): Style 10012 + Style 20886
cUL AWM I A/B, cUL AWM II A/B (both according to CSA C22.2 No.210-05)



Based on
HD 21.13/VDE 0281-13 and VDE 0250-1
UL AWM Styles 10012 and 20886 as well as CSA AWM C22.2 No. 210-05



Specific insulation resistance
> 20 GOhm x cm



Conductor stranding
Extra-fine wire acc. to VDE 0295, class 6/ IEC 60228 class 6



Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage
According to IEC/VDE: U0/U 0.6/1 kV ac
According to UL/CSA: 1000 V



Test voltage
C/C: 4000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Flexible use: -35°C to +90°C (acc. UL)
Fixed installation: -40 °C to +90 °C (according to UL)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TORSION				
1150465	12 G 0.75	12.4	86.4	222.43
1150466	14 G 0.75	13.0	100.8	272.59
1150467	18 G 0.75	14.6	129.6	304.28
1150468	25 G 0.75	17.8	180.0	450.97
1150469	41 G 0.75	22.4	295.2	701
1150470	50 G 0.75	24.2	360.0	835.1
1150479	12 G 1.0	13.2	115.2	258.63
1150480	16 G 1.0	14.8	153.6	368.93
1150485	3 G 1.5	9.0	43.2	122.5
1150486	4 G 1.5	9.7	57.6	146.48
1150487	5 G 1.5	10.6	72.0	172.26
1150488	7 G 1.5	12.6	100.8	238.27
1150489	12 G 1.5	15.3	172.8	365.37
1150490	19 G 1.5	18.3	273.6	530
1150491	25 G 1.5	22.8	360.0	790.84
1150492	32 G 1.5	24.5	460.8	942.4
1150495	3 G 2.5	10.4	72.0	170.45
1150496	4 G 2.5	11.3	96.0	227.87
1150497	5 G 2.5	12.4	120.0	244.65
1150498	7 G 2.5	15.0	168.0	352.26
1150499	12 G 2.5	18.9	288.0	540
1150500	16 G 2.5	20.8	384.0	760
1150501	19 G 2.5	23.9	456.0	879.61
1150502	25 G 2.5	26.8	600.0	1126.58
1150505	3 G 4	11.9	115.2	240.57

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1150506	4 G 4	13.0	153.6	297.57
1150507	5 G 4	14.3	192.0	352.77
1150508	3 G 6	12.9	172.8	322.03
1150509	4 G 6	14.4	230.4	384.49
1150510	5 G 6	16.0	288.0	466.84
1150511	3 G 10	16.6	288.0	530.15
1150512	4 G 10	18.4	384.0	631.48
1150513	5 G 10	20.5	480.0	768.13
1150514	3 G 16	19.2	460.8	794
1150515	4 G 16	22.2	614.4	1017.78
1150516	5 G 16	24.4	768.0	1147.35
1150517	3 G 25	24.5	720.0	1133
1150518	3 X 25	24.5	720.0	1133
1150519	4 G 25	26.9	960.0	1471.23
1150520	5 G 25	29.9	1,200.0	1815.1
1150521	3 G 35	27.1	1,008.0	1521
1150522	3 X 35	27.1	1,008.0	1521
1150523	4 G 35	30.1	1,344.0	1952
1150524	5 G 35	33.7	1,680.0	2438.71
1150525	3 G 50	32.1	1,440.0	2235
1150526	3 X 50	32.1	1,440.0	2235
1150527	4 G 50	35.7	1,920.0	2866
1150528	5 G 50	39.5	2,400.0	3583.23
1150529	3 G 70	37.0	2,016.0	3150
1150530	3 X 70	37.0	2,016.0	3150
1150531	4 G 70	41.4	2,688.0	4112

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TORSION FRNC refer to page 155
- ÖLFLEX® FORTIS refer to page 72

ÖLFLEX® TORSION FRNC

Cold and oil-resistant cables for flexible applications under torsional load, halogen-free - 0.6/1 kV



Info

- Torsion-resistant and very flexible
- Improved characteristics in the event of a fire
- Certified for the USA and Canada



ÖLFLEX® TORSION D FRNC

Screened, cold and oil-resistant cables for flexible applications under torsional load, halogen-free - 0.6/1 kV



Info

- Copper-screened version



Benefits

- The special design reliably compensates for the permanent torsional movements inside the wind turbine between the nacelle and the tower
- The high flexibility and good dismantling and stripping properties enable easy space-saving cable installation and fast processing
- Sea water-resistant for onshore and offshore applications
- FRNC = Flame Retardant Non Corrosive
 - Reduction of flame-propagation and density and toxicity of smoke gases in the event of fire
 - Minimisation of damage to buildings and production facilities
 - Safety for staff and in areas with high density of people
- The copper wrapping of the screened D version protects against electromagnetic interference

Application range

- For fixed and flexible installations, as well as for applications with torsional movements (e.g. machinery, wind turbines)
- Very suitable for installation in the loop, between the rotating nacelle and the stationary windmill tower, to connect the generator to the control units
- As a torsionally moved cable for use in North America with UL WTC Listing (Wind Turbine Tray Cable), we recommend ÖLFLEX® FORTIS, which complies with the NFPA 79 standard and UL 2277 and UL 6140 outline

Product features

- Torsion-resistant up to $\pm 150^\circ/m$
- Good weather, abrasion, temperature and UV-resistance
- Resistant to oils
- Halogen-free and highly flame-retardant
- Depending on the quantity, customised designs are also possible upon request

Approvals



- UL AWM Style 21288 / cUL AWM II A/B
- Fire behaviour:
 - Halogen-free (IEC 60754-1)
 - No corrosive gases (IEC 60754-2)
 - Low smoke density (IEC 61034-2)
 - Flame-retardant (IEC 60332-1-2)
 - No fire propagation (IEC 60332-3-24 and IEC 60332-3-25)
- Oil-resistant according to EN 60811-2-1 and UL OIL RES I and UL OIL RES II
- UV-resistant according to ISO 4892-2 and ozone-resistant according to EN 50396
- Use of leading, European metric stranded conductors according to the IEC scale for conductor nominal cross-sections in mm² according to IEC 60228/VDE 0295, braided conductor class 6 (tinned): For converting to AWG, odd-numbered nominal AWG cross-sections must be excluded. The next lowest nominal AWG conductor cross-section in mm² must then be allocated to the metric nominal conductor cross-section in mm² (according to IEC 60228) (please refer to the technical catalogue appendix T 16). This is to ensure that the normative current rating defined by the nominal AWG conductor cross-section does not exceed the physical/real current rating defined by the nominal IEC conductor cross-section that is actually used

Design

- Extra-fine wire conductor made of bare copper
- Core insulation: polyolefin compound, LSZH
- Core connection optimised for high torsion requirements, twisted in layers
- Optional screening (D): wrapped with braided tinned-copper wires
- Outer sheath: special compound, halogen-free, black (RAL 9005)

Technical data

Core identification code
Power and control cables:
Colour-coded in accordance with VDE 0293-308,
refer to Appendix T9
From 6 cores: black with white numbers
Paired signal cables: DIN 47100

Approvals
UL AWM Style 21288
cUL AWM II A/B

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
Extra-fine wire acc. to VDE 0295, class 6/
IEC 60228 class 6
(Refer to Appendix T 16 for the matching US
conductor sizes in AWG standard)

Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation: 6 x outer diameter

Nominal voltage
According to IEC/VDE: U0/U 0.6/1 kV ac
Operating voltage in accordance with UL:
1000V

Test voltage
ÖLFLEX® TORSION FRNC
C/C: 4000 V
ÖLFLEX® TORSION D FRNC
C/C: 4000 V
C/S: 2000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
Flexible use: -40°C to +90°C (UL +80°C)
Fixed installation: -40°C to +90°C (UL +80°C)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TORSION FRNC				
1150199	12 G 0.75	12.4	86.4	237
1150377	14 G 0.75	13.0	100.8	291
1150201	18 G 0.75	14.6	129.6	323
1150204	25 G 0.75	17.8	180.0	480
1150208	50 G 0.75	24.2	360.0	886
1150373	12 G 1.0	13.2	115.2	274
1150378	16 G 1.0	14.8	153.6	392
1150271	3 G 1.5	9.0	43.2	131
1150272	4 G 1.5	9.7	57.6	156
1150273	5 G 1.5	10.6	72.0	183
1150275	7 G 1.5	12.6	100.8	253
1150279	12 G 1.5	15.3	172.8	386

Special applications

Wind energy

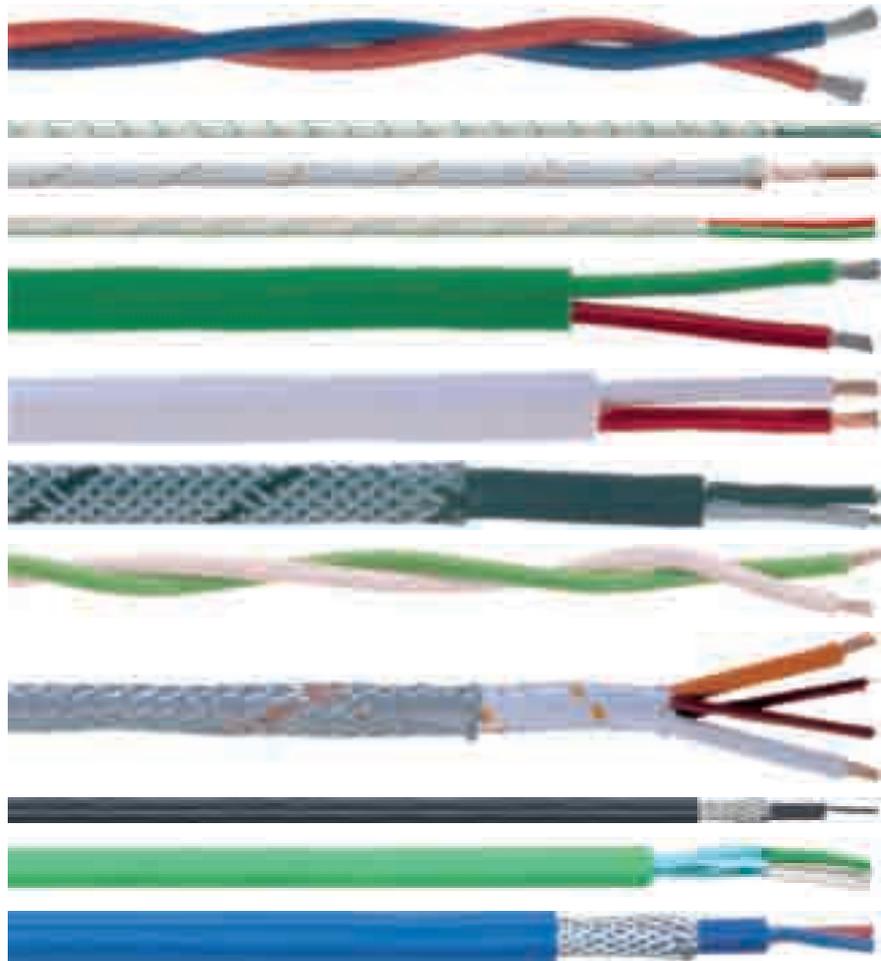
Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1150280	18 G 1.5	18.3	259.2	563
1150374	25 G 1.5	22.8	360.0	837
1150375	32 G 1.5	24.5	460.8	994
1150311	3 G 2.5	10.4	72.0	181
1150312	4 G 2.5	11.3	96.0	242
1150313	5 G 2.5	12.4	120.0	258
1150315	7 G 2.5	15.0	168.0	372
1150319	12 G 2.5	18.9	288.0	567
1150322	19 G 2.5	23.9	456.0	925
1150376	25 G 2.5	26.8	600.0	1183
1150350	3 G 4	11.9	115.2	254
1150351	4 G 4	13.0	153.6	313
1150352	5 G 4	14.3	192.0	370
1150355	3 G 6	12.9	173.0	338
1150356	4 G 6	14.4	230.4	401
1150357	5 G 6	16.0	288.0	486
1150360	3 G 10	16.6	288.0	556.1
1150361	4 G 10	18.4	384.0	658
1150362	5 G 10	20.5	480.0	799
1150366	4 G 16	22.2	614.4	1061
1150367	5 G 16	24.4	768.0	1188
1150371	4 G 25	26.9	960.0	1526
1150372	5 G 25	29.9	1,200.0	1881
1150369	5 G 35	33.7	1,680.0	2520
1150379	5 G 50	39.5	2,400.0	3710
ÖLFLEX® TORSION D FRNC - screened				
1150111	4 x 2 x 0.5	11.9	71.0	205
1150115	12 x 2 x 0.5	18.3	188.0	518
1150121	4 x 2 x 0.75	12.7	90.0	232
1150125	12 x 2 x 0.75	19.8	258.0	603
1150221	18 G 0.75	15.2	180.0	402
1150228	50 G 0.75	24.9	470.0	1079

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

Extension- and compensating cables, paired

PVC, silicone or glass fibre-insulated



Info

- Available in many different designs

Technical data

- DIN VDE Based on**
Limiting deviation in accordance with DIN and IEC in accordance with class 2
- Conductor stranding**
1.5 mm²: approx. 48 x 0.20 mm
0.75 mm²: approx. 24 x 0.20 mm
0.5 mm²: approx. 16 x 0.20 mm
0.22 mm²: approx. 7 x 0.20 mm
- Minimum bending radius**
Without metal braiding:
12 x cable diameter
With metal braiding:
15 x cable diameter
- Temperature range**
(referring to insulation and sheath material)
PVC: -5°C to +70°C
Silicone: -25°C to +180°C
Glass fibre: -25°C to +200°C

Application range

- The thermocouple is used to measure temperature as a part of monitoring the manufacturing process, thus the sheath material should be selected with reference to the maximum ambient temperature at its junction.
- **Conductor materials (alloys):**
Fe/CuNi (LX, JX)
Conductor alloys are identical to thermocouple alloys
- **NiCr/Ni (KCA, KX)**
KCA version: compensating alloys, not identical to thermocouple alloys
KX version - conductor alloys are identical to thermocouple alloys
- **PtRh/Pt (RCB, SCB)**
Compensating alloys are not identical to thermocouple alloys

Approvals

- **Colour identity code**
DIN 43710
Negative conductor and outer sheath:
Fe/CuNi: blue
NiCr/Ni: green
PtRh/Pt: white
Positive conductor: always red
IEC 60 584
Positive conductor and outer sheath:
Fe/CuNi: black
NiCr/Ni: green
PtRh/Pt: orange
Negative conductor: always white

Design

- **Design abbreviations:**
PVC: Polyvinylchloride
SIL: Silicone rubber
GL: Glass fibre
C: Copper braiding screen
ST: Aluminium foil screen
S: Steel wire braiding

• **Design, for example PVC-PVC-S-PVC:**

- PVC core insulation
- PVC inner sheath
- Steel wire braiding
- PVC outer sheath
- **Examples shown (top to bottom):**
Fe/CuNi DIN 2 x 1.5 PVC
NiCr/Ni IEC 2 x 1.5 GL-GL
PtRh/Pt IEC 2 x 1.5 GL-GL-S
NiCr/Ni DIN 2 x 1.5 SIL-GL
NiCr/Ni DIN 2 x 1.5 PVC-PVC
PtRh/Pt DIN 2 x 1.5 SIL-SIL
Fe/CuNi IEC 2 x 1.5 SIL-SIL-S
NiCr/Ni IEC 2 x 1.5 SIL
PtRh/Pt IEC 2 x 1.5 SIL-GL-S
Fe/CuNi IEC 2 x 0.22 PVC-PVC-C-PVC
NiCr/Ni IEC 2 x 1.5 PVC-ST-PVC
Fe/CuNi DIN 2 x 1.5 PVC-PVC-S-PVC

Article number	Reference/article designation	Thermocouple	Design	Cable design	Number of cores and mm ² per conductor	Outer diameter (mm)	Outer dimensions, width x height (mm)	Weight (kg/km)
0.22 mm² extension and compensating cables								
0151051	KE 9-022 L	Fe/CuNi	DIN LX	PVC-PVC	2 x 0.22	4.0		22
0161051	KE 9-022 L	Fe/CuNi	IEC JX	PVC-PVC	2 x 0.22	4.0		22
0152051	KN 9-022 L	NiCr/Ni	DIN KCA	PVC-PVC	2 x 0.22	4.0		22
0162051	KN 9-022 L	NiCr/Ni	IEC KCA	PVC-PVC	2 x 0.22	4.0		22
0153051	KP 9-022 L	PtRh/Pt	DIN RCB, SCB	PVC-PVC	2 x 0.22	4.0		22
0163051	KP 9-022 L	PtRh/Pt	DIN RCB, SCB	PVC-PVC	2 x 0.22	4.0		22
0151052	KE 5-022 L-CY	Fe/CuNi	DIN LX	PVC-PVC-C-PVC	2 x 0.22	4.9		31
0161052	KE 5-022 L-CY	Fe/CuNi	IEC JX	PVC-PVC-C-PVC	2 x 0.22	4.9		31
0152052	KN 5-022 L-CY	NiCr/Ni	DIN KCA	PVC-PVC-C-PVC	2 x 0.22	4.9		31
0162052	KN 5-022 L-CY	NiCr/Ni	IEC KCA	PVC-PVC-C-PVC	2 x 0.22	4.9		31
0153052	KP 5-022 L-CY	PtRh/Pt	DIN RCB, SCB	PVC-PVC-C-PVC	2 x 0.22	4.9		31
0163052	KP 5-022 L-CY	PtRh/Pt	IEC RCB, SCB	PVC-PVC-C-PVC	2 x 0.22	4.9		31
0.5 mm² extension and compensating cables								
0151030	KE 91 L	Fe/CuNi	DIN LX	PVC-PVC	2 x 0.5	5.4		45
0161030	KE 91 L	Fe/CuNi	IEC JX	PVC-PVC	2 x 0.5	5.4		45

Special applications

Temperature measurement (extension and compensating cables)

Article number	Reference/article designation	Thermocouple	Design	Cable design	Number of cores and mm ² per conductor	Outer diameter (mm)	Outer dimensions, width x height (mm)	Weight (kg/km)
0152040	KN 91 L	NiCr/Ni	DIN KCA	PVC-PVC	2 x 0.5	5.4		45
0162040	KN 91 L	NiCr/Ni	IEC KCA	PVC-PVC	2 x 0.5	5.4		45
0151040	KE 41 L-SIL	Fe/CuNi	DIN LX	SIL-SIL-S oval	2 x 0.5		6.4 x 4.4	51
0161040	KE 41 L-SIL	Fe/CuNi	IEC JX	SIL-SIL-S oval	2 x 0.5		6.4 x 4.4	51
0152030	KN 41 L-SIL	NiCr/Ni	DIN KCA	SIL-SIL-S oval	2 x 0.5		6.4 x 4.4	51
0162030	KN 41 L-SIL	NiCr/Ni	IEC KCA	SIL-SIL-S oval	2 x 0.5		6.4 x 4.4	51
0.75 mm² extension and compensating cables								
0151035	KE 92 L	Fe/CuNi	DIN LX	PVC-PVC	2 x 0.75	6.0		56
0161035	KE 92 L	Fe/CuNi	IEC JX	PVC-PVC	2 x 0.75	6.0		56
0152045	KN 92 L	NiCr/Ni	DIN KCA	PVC-PVC	2 x 0.75	6.0		56
0162045	KN 92 L	NiCr/Ni	IEC KCA	PVC-PVC	2 x 0.75	6.0		56
0151050	KE 42 L-SIL	Fe/CuNi	DIN LX	SIL-SIL-S oval	2 x 0.75		6.4 x 4.4	58
0161050	KE 42 L-SIL	Fe/CuNi	IEC JX	SIL-SIL-S oval	2 x 0.75		6.4 x 4.4	58
0152035	KN 42 L-SIL	NiCr/Ni	DIN KCA	SIL-SIL-S oval	2 x 0.75		6.4 x 4.4	58
0162035	KN 42 L-SIL	NiCr/Ni	IEC KCA	SIL-SIL-S oval	2 x 0.75		6.4 x 4.4	58
PVC-insulated versions 1.5 mm²								
0151001	KE 1 L	Fe/CuNi	DIN LX	PVC	2 x 1.5	5.4		40
0161001	KE 1 L	Fe/CuNi	IEC JX	PVC	2 x 1.5	5.4		40
0152001	KN 1 L	NiCr/Ni	DIN KCA	PVC	2 x 1.5	5.4		40
0162001	KN 1 L	NiCr/Ni	IEC KCA	PVC	2 x 1.5	5.4		40
0151010	KE 9 L	Fe/CuNi	DIN LX	PVC-PVC round	2 x 1.5	7.1		79
0161010	KE 9 L	Fe/CuNi	IEC JX	PVC-PVC round	2 x 1.5	7.1		79
0152010	KN 9 L	NiCr/Ni	DIN KCA	PVC-PVC round	2 x 1.5	7.1		79
0162010	KN 9 L	NiCr/Ni	IEC KCA	PVC-PVC round	2 x 1.5	7.1		79
0154010	KXN 9 L	NiCr/Ni	DIN KX	PVC-PVC round	2 x 1.5	7.1		79
0164010	KXN 9 L	NiCr/Ni	IEC KX	PVC-PVC round	2 x 1.5	7.1		79
0153010	KP 9 L	PtRh/Pt	DIN RCB, SCB	PVC-PVC round	2 x 1.5	7.1		79
0163010	KP 9 L	PtRh/Pt	IEC RCB, SCB	PVC-PVC round	2 x 1.5	7.1		79
0151017	KE 12 L	Fe/CuNi	DIN LX	PVC-PVC oval	2 x 1.5		7.2 x 4.4	69
0161017	KE 12 L	Fe/CuNi	IEC JX	PVC-PVC oval	2 x 1.5		7.2 x 4.4	69
0152017	KN 12 L	NiCr/Ni	DIN KCA	PVC-PVC oval	2 x 1.5		7.2 x 4.4	69
0162017	KN 12 L	NiCr/Ni	IEC KCA	PVC-PVC oval	2 x 1.5		7.2 x 4.4	69
0154011	KE 20 L	Fe/CuNi	DIN LX	PVC-ST-PVC	2 x 1.5	7.6		85
0164011	KE 20 L	Fe/CuNi	IEC JX	PVC-ST-PVC	2 x 1.5	7.6		85
0154012	KN 20 L	NiCr/Ni	DIN KCA	PVC-ST-PVC	2 x 1.5	7.6		85
0164012	KN 20 L	NiCr/Ni	IEC KCA	PVC-ST-PVC	2 x 1.5	7.6		85
0154013	KXN 20 L	NiCr/Ni	DIN KX	PVC-ST-PVC	2 x 1.5	7.6		85
0164013	KXN 20 L	NiCr/Ni	IEC KX	PVC-ST-PVC	2 x 1.5	7.6		85
0154014	KP 20 L	PtRh/Pt	DIN RCB, SCB	PVC-ST-PVC	2 x 1.5	7.6		85
0164014	KP 20 L	PtRh/Pt	IEC RCB, SCB	PVC-ST-PVC	2 x 1.5	7.6		85
0151011	KE 9 L-S	Fe/CuNi	DIN LX	PVC-PVC-S	2 x 1.5	8.0		140
0161011	KE 9 L-S	Fe/CuNi	IEC JX	PVC-PVC-S	2 x 1.5	8.0		140
0152011	KN 9 L-S	NiCr/Ni	DIN KCA	PVC-PVC-S	2 x 1.5	8.0		140
0162011	KN 9 L-S	NiCr/Ni	IEC KCA	PVC-PVC-S	2 x 1.5	8.0		140
0157514	KE 9 L-SY	Fe/CuNi	DIN LX	PVC-PVC-S-PVC	2 x 1.5	10.3		160
0167514	KE 9 L-SY	Fe/CuNi	IEC JX	PVC-PVC-S-PVC	2 x 1.5	10.3		160
0157513	KN 9 L-SY	NiCr/Ni	DIN KCA	PVC-PVC-S-PVC	2 x 1.5	10.3		160
0167513	KN 9 L-SY	NiCr/Ni	IEC KCA	PVC-PVC-S-PVC	2 x 1.5	10.3		160
0157515	KP 9 L-SY	PtRh/Pt	DIN RCB, SCB	PVC-PVC-S-PVC	2 x 1.5	10.3		160
0167515	KP 9 L-SY	PtRh/Pt	IEC RCB, SCB	PVC-PVC-S-PVC	2 x 1.5	10.3		160
Silicone-insulated versions 1.5 mm²								
0151003	KE 1 L-SIL	Fe/CuNi	DIN LX	SIL	2 x 1.5	5.4		40
0161003	KE 1 L-SIL	Fe/CuNi	IEC JX	SIL	2 x 1.5	5.4		40
0152003	KN 1 L-SIL	NiCr/Ni	DIN KCA	SIL	2 x 1.5	5.4		40
0162003	KN 1 L-SIL	NiCr/Ni	IEC KCA	SIL	2 x 1.5	5.4		40
0151022	KE 15 L-SIL	Fe/CuNi	DIN LX	SIL-SIL round	2 x 1.5	7.0		76
0161022	KE 15 L-SIL	Fe/CuNi	IEC JX	SIL-SIL round	2 x 1.5	7.0		76
0152022	KN 15 L-SIL	NiCr/Ni	DIN KCA	SIL-SIL round	2 x 1.5	7.0		76
0162022	KN 15 L-SIL	NiCr/Ni	IEC KCA	SIL-SIL round	2 x 1.5	7.0		76
0153022	KP 15 L-SIL	PtRh/Pt	DIN RCB, SCB	SIL-SIL round	2 x 1.5	7.0		76
0163022	KP 15 L-SIL	PtRh/Pt	IEC RCB, SCB	SIL-SIL round	2 x 1.5	7.0		76
0151023	KE 15 L-SIL-S	Fe/CuNi	DIN LX	SIL-SIL-S round	2 x 1.5	7.8		105
0161023	KE 15 L-SIL-S	Fe/CuNi	IEC JX	SIL-SIL-S round	2 x 1.5	7.8		105
0152023	KN 15 L-SIL-S	NiCr/Ni	DIN KCA	SIL-SIL-S round	2 x 1.5	7.8		105
0162023	KN 15 L-SIL-S	NiCr/Ni	IEC KCA	SIL-SIL-S round	2 x 1.5	7.8		105
0153023	KP 15 L-SIL-S	PtRh/Pt	DIN RCB, SCB	SIL-SIL-S round	2 x 1.5	7.8		105
0163023	KP 15 L-SIL-S	PtRh/Pt	IEC RCB, SCB	SIL-SIL-S round	2 x 1.5	7.8		105
0151007	KE 4 L-SIL-S	Fe/CuNi	DIN LX	SIL-SIL-S oval	2 x 1.5		8.0 x 5.2	85
0161007	KE 4 L-SIL-S	Fe/CuNi	IEC JX	SIL-SIL-S oval	2 x 1.5		8.0 x 5.2	85
0152007	KN 4 L-SIL-S	NiCr/Ni	DIN KCA	SIL-SIL-S oval	2 x 1.5		8.0 x 5.2	85
0162007	KN 4 L-SIL-S	NiCr/Ni	IEC KCA	SIL-SIL-S oval	2 x 1.5		8.0 x 5.2	85
0153007	KP 4 L-SIL-S	PtRh/Pt	DIN RCB, SCB	SIL-SIL-S oval	2 x 1.5		8.0 x 5.2	85
0163007	KP 4 L-SIL-S	PtRh/Pt	IEC RCB, SCB	SIL-SIL-S oval	2 x 1.5		8.0 x 5.2	85
0151019	KE 13 L-SIL	Fe/CuNi	DIN LX	SIL-GL oval	2 x 1.5		6.0 x 3.3	50
0161019	KE 13 L-SIL	Fe/CuNi	IEC JX	SIL-GL oval	2 x 1.5		6.0 x 3.3	50
0152019	KN 13 L-SIL	NiCr/Ni	DIN KCA	SIL-GL oval	2 x 1.5		6.0 x 3.3	50
0162019	KN 13 L-SIL	NiCr/Ni	IEC KCA	SIL-GL oval	2 x 1.5		6.0 x 3.3	50
0153019	KP 13 L-SIL	PtRh/Pt	DIN RCB, SCB	SIL-GL oval	2 x 1.5		6.0 x 3.3	50
0163019	KP 13 L-SIL	PtRh/Pt	IEC RCB, SCB	SIL-GL oval	2 x 1.5		6.0 x 3.3	50
0151015	KE 11 L-SIL-S	Fe/CuNi	DIN LX	SIL-GL-S	2 x 1.5	6.7		82
0161015	KE 11 L-SIL-S	Fe/CuNi	IEC JX	SIL-GL-S	2 x 1.5	6.7		82
0152015	KN 11 L-SIL-S	NiCr/Ni	DIN KCA	SIL-GL-S	2 x 1.5	6.7		82
0162015	KN 11 L-SIL-S	NiCr/Ni	IEC KCA	SIL-GL-S	2 x 1.5	6.7		82
0153015	KP 11 L-SIL-S	PtRh/Pt	DIN RCB, SCB	SIL-GL-S	2 x 1.5	6.7		82
0163015	KP 11 L-SIL-S	PtRh/Pt	IEC RCB, SCB	SIL-GL-S	2 x 1.5	6.7		82
Glass fibre-insulated versions 1.5 mm²								
0151005	KE 3 L	Fe/CuNi	DIN LX	GL-GL oval	2 x 1.5		5.1 x 2.7	64
0161005	KE 3 L	Fe/CuNi	IEC JX	GL-GL oval	2 x 1.5		5.1 x 2.7	64
0152005	KN 3 L	NiCr/Ni	DIN KCA	GL-GL oval	2 x 1.5		5.1 x 2.7	64
0162005	KN 3 L	NiCr/Ni	IEC KCA	GL-GL oval	2 x 1.5		5.1 x 2.7	64
0153005	KP 3 L	PtRh/Pt	DIN RCB, SCB	GL-GL oval	2 x 1.5		5.1 x 2.7	64
0163005	KP 3 L	PtRh/Pt	IEC RCB, SCB	GL-GL oval	2 x 1.5		5.1 x 2.7	64
0151006	KE 4 L-S	Fe/CuNi	DIN LX	GL-GL-S oval	2 x 1.5		5.9 x 3.7	87
0161006	KE 4 L-S	Fe/CuNi	IEC JX	GL-GL-S oval	2 x 1.5		5.9 x 3.7	87
0152006	KN 4 L-S	NiCr/Ni	DIN KCA	GL-GL-S oval	2 x 1.5		5.9 x 3.7	87
0162006	KN 4 L-S	NiCr/Ni	IEC KCA	GL-GL-S oval	2 x 1.5		5.9 x 3.7	87
0153006	KP 4 L-S	PtRh/Pt	DIN RCB, SCB	GL-GL-S oval	2 x 1.5		5.9 x 3.7	87
0163006	KP 4 L-S	PtRh/Pt	IEC RCB, SCB	GL-GL-S oval	2 x 1.5		5.9 x 3.7	87

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

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

Extension- and compensating cables, multi-paired PVC insulated - with and without steel wire armouring or foil screen



Info

- **Version SY** - Armoured against mechanical loads
- **Version ST** - Screened against electro-magnetical interference



Approvals



Design

- **Version Y:**
 - Fine-wire conductor alloy
 - PVC core insulation
 - Cores twisted into layers
 - PVC outer sheath
- **Version SY:**
 - Design as version Y
 - Additional galvanised steel wire braiding
 - PVC outer sheath
- **Version ST:**
 - Design as version Y
 - Cores twisted in pairs, pairs twisted in layers
 - Aluminium foil screening + drain wire
 - PVC outer sheath

- **Design, for example PVC-PVC-S-PVC:**
 - PVC core insulation
 - PVC inner sheath
 - Steel wire braiding
 - PVC outer sheath
- **Design, for example PVC-ST-PVC:**
 - PVC core insulation
 - Static foil screen
 - PVC outer sheath
- **Colour identity code**
DIN 43710
Negative conductor and outer sheath:
Fe/CuNi: blue
NiCr/Ni: green
PtRh/Pt: white
Positive conductor: always red
IEC 60 584
Positive conductor and outer sheath:
Fe/CuNi: black
NiCr/Ni: green
PtRh/Pt: orange
Negative conductor: always white
- **Extension-conductor** alloys are identified with **X**, e.g. JX (Fe/CuNi)
Compensating-conductor alloys are identified with **C**, e.g. KCA (NiCr/Ni)

Technical data

- Core identification code**
From 4 cores in pairs with consecutively marked numbers (1-1, 2-2, 3-3, 4-4...)
- Based on**
Limiting deviation in accordance with DIN and IEC in accordance with class 2
- Conductor stranding**
48 x 0.20 mm
- Minimum bending radius**
For flexible use:
12.5 x outer diameter
Type SY with steel braid:
15 x outer diameter
Type ST with foil screen:
15 x outer diameter
- Temperature range**
(referring to insulation and sheath material)
Flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Thermocouple	Design	Cable design	Number of cores and mm ² per conductor	Outer diameter (mm)	Weight (kg/km)
Type Y without steel wire braiding						
0155001	Fe/CuNi	DIN-LX	PVC-PVC	4 x 1.5	8.2	469
0165001	Fe/CuNi	IEC-JX	PVC-PVC	4 x 1.5	8.2	130
0156001	NiCr/Ni	DIN-KCA	PVC-PVC	4 x 1.5	8.2	257
0166001	NiCr/Ni	IEC-KCA	PVC-PVC	4 x 1.5	8.2	130
0157001	PtRh/Pt	DIN-RCB/SCB	PVC-PVC	4 x 1.5	8.2	130
0167001	PtRh/Pt	IEC-RCB/SCB	PVC-PVC	4 x 1.5	8.2	130
0155002	Fe/CuNi	DIN-LX	PVC-PVC	6 x 1.5	10.2	847
0165002	Fe/CuNi	IEC-JX	PVC-PVC	6 x 1.5	10.2	200
0156002	NiCr/Ni	DIN-KCA	PVC-PVC	6 x 1.5	10.2	469
0166002	NiCr/Ni	IEC-KCA	PVC-PVC	6 x 1.5	10.2	200
0157002	PtRh/Pt	DIN-RCB/SCB	PVC-PVC	6 x 1.5	10.2	200
0167002	PtRh/Pt	IEC-RCB/SCB	PVC-PVC	6 x 1.5	10.2	200
0155003	Fe/CuNi	DIN-LX	PVC-PVC	8 x 1.5	11.2	145
0165003	Fe/CuNi	IEC-JX	PVC-PVC	8 x 1.5	11.2	238
0156003	NiCr/Ni	DIN-KCA	PVC-PVC	8 x 1.5	11.2	238
0166003	NiCr/Ni	IEC-KCA	PVC-PVC	8 x 1.5	11.2	238
0155005	Fe/CuNi	DIN-LX	PVC-PVC	12 x 1.5	13.3	573
0165005	Fe/CuNi	IEC-JX	PVC-PVC	12 x 1.5	13.3	335
0155007	Fe/CuNi	DIN-LX	PVC-PVC	16 x 1.5	15.0	145
0165007	Fe/CuNi	IEC-JX	PVC-PVC	16 x 1.5	15.0	447
0156007	NiCr/Ni	DIN-KCA	PVC-PVC	16 x 1.5	15.0	573
0166007	NiCr/Ni	IEC-KCA	PVC-PVC	16 x 1.5	15.0	447
0155010	Fe/CuNi	DIN-LX	PVC-PVC	24 x 1.5	19.0	257
0165010	Fe/CuNi	IEC-JX	PVC-PVC	24 x 1.5	19.0	555
0156010	NiCr/Ni	DIN-KCA	PVC-PVC	24 x 1.5	19.0	145
0166010	NiCr/Ni	IEC-KCA	PVC-PVC	24 x 1.5	19.0	555
Type SY with steel wire braiding						
0155501	Fe/CuNi	DIN-LX	PVC-PVC-S-PVC	4 x 1.5	11.4	145
0165501	Fe/CuNi	IEC-JX	PVC-PVC-S-PVC	4 x 1.5	11.4	240
0156501	NiCr/Ni	DIN-KCA	PVC-PVC-S-PVC	4 x 1.5	11.4	240
0166501	NiCr/Ni	IEC-KCA	PVC-PVC-S-PVC	4 x 1.5	11.4	240
0157501	PtRh/Pt	DIN-RCB/SCB	PVC-PVC-S-PVC	4 x 1.5	11.4	240
0167501	PtRh/Pt	IEC-RCB/SCB	PVC-PVC-S-PVC	4 x 1.5	11.4	240
0155502	Fe/CuNi	DIN-LX	PVC-PVC-S-PVC	6 x 1.5	13.0	257
0165502	Fe/CuNi	IEC-JX	PVC-PVC-S-PVC	6 x 1.5	13.0	355
0156502	NiCr/Ni	DIN-KCA	PVC-PVC-S-PVC	6 x 1.5	13.0	355
0166502	NiCr/Ni	IEC-KCA	PVC-PVC-S-PVC	6 x 1.5	13.0	355
0157502	PtRh/Pt	DIN-RCB/SCB	PVC-PVC-S-PVC	6 x 1.5	13.0	355
0167502	PtRh/Pt	IEC-RCB/SCB	PVC-PVC-S-PVC	6 x 1.5	13.0	355
0155503	Fe/CuNi	DIN-LX	PVC-PVC-S-PVC	8 x 1.5	13.8	469

Special applications

Temperature measurement (extension and compensating cables)

Article number	Thermocouple	Design	Cable design	Number of cores and mm ² per conductor	Outer diameter (mm)	Weight (kg/km)
0165503	Fe/CuNi	IEC-JX	PVC-PVC-S-PVC	8 x 1.5	13.8	410
0156503	NiCr/Ni	DIN-KCA	PVC-PVC-S-PVC	8 x 1.5	13.8	410
0166503	NiCr/Ni	IEC-KCA	PVC-PVC-S-PVC	8 x 1.5	13.8	410
0155505	Fe/CuNi	DIN-LX	PVC-PVC-S-PVC	12 x 1.5	17.9	257
0165505	Fe/CuNi	IEC-JX	PVC-PVC-S-PVC	12 x 1.5	17.9	550
0156505	NiCr/Ni	DIN-KCA	PVC-PVC-S-PVC	12 x 1.5	17.9	550
0166505	NiCr/Ni	IEC-KCA	PVC-PVC-S-PVC	12 x 1.5	17.9	550
0155507	Fe/CuNi	DIN-LX	PVC-PVC-S-PVC	16 x 1.5	19.4	469
0165507	Fe/CuNi	IEC-JX	PVC-PVC-S-PVC	16 x 1.5	19.4	730
0155510	Fe/CuNi	DIN-LX	PVC-PVC-S-PVC	24 x 1.5	23.8	573
0165510	Fe/CuNi	IEC-JX	PVC-PVC-S-PVC	24 x 1.5	23.8	847
Type ST with static overall screening						
0158500	Fe/CuNi	DIN-LX	PVC-ST-PVC	2 x 2 x 1.5	11.4	145
0168500	Fe/CuNi	IEC-JX	PVC-ST-PVC	2 x 2 x 1.5	11.4	145
0158501	NiCr/Ni	DIN-KCA	PVC-ST-PVC	2 x 2 x 1.5	11.4	145
0168501	NiCr/Ni	IEC-KCA	PVC-ST-PVC	2 x 2 x 1.5	11.4	145
0158503	Fe/CuNi	DIN-LX	PVC-ST-PVC	4 x 2 x 1.5	13.7	257
0168503	Fe/CuNi	IEC-JX	PVC-ST-PVC	4 x 2 x 1.5	13.7	257
0158504	NiCr/Ni	DIN-KCA	PVC-ST-PVC	4 x 2 x 1.5	13.7	257
0168504	NiCr/Ni	IEC-KCA	PVC-ST-PVC	4 x 2 x 1.5	13.7	257
0158506	Fe/CuNi	DIN-LX	PVC-ST-PVC	8 x 2 x 1.5	18.3	469
0168506	Fe/CuNi	IEC-JX	PVC-ST-PVC	8 x 2 x 1.5	18.3	469
0158507	NiCr/Ni	DIN-KCA	PVC-ST-PVC	8 x 2 x 1.5	18.3	469
0168507	NiCr/Ni	IEC-KCA	PVC-ST-PVC	8 x 2 x 1.5	18.3	469
0158509	Fe/CuNi	DIN-LX	PVC-ST-PVC	12 x 2 x 1.5	22.2	573
0168509	Fe/CuNi	IEC-JX	PVC-ST-PVC	12 x 2 x 1.5	22.2	573
0158510	NiCr/Ni	DIN-KCA	PVC-ST-PVC	12 x 2 x 1.5	22.2	573
0168510	NiCr/Ni	IEC-KCA	PVC-ST-PVC	12 x 2 x 1.5	22.2	573

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

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

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ACCESSORIES

APPENDIX

ÖLFLEX® CRANE NSHTÖU

Reelable cables for low and medium mechanical stress



Info

- Robust and efficient
- Suitable for outdoor use
- Integrated sheath supporting braid



Benefits

- Can be used as hawser, drum and towing cable as well as for energy supply chains
- Integrated supporting braid prevents undesirable cable twists, and the formation of so-called corkscrew effects

Application range

- For use in hoists, transport and conveyor systems
- Reeling/unreeling during operation without fixing
- In dry or damp interiors, outdoors, or in industrial water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1
- Good chemical, thermal and mechanical-resistance
- For connecting mobile equipment in hazardous areas acc. to DIN VDE 0165

Approvals



Design

- Strands of tinned-copper wires
- Core insulation: rubber compound type 3GI3
- Support braid integrated in the outer sheath
- Outer sheath: rubber compound, type 5GM3

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Approvals**
VDE 0250 Part 814 NSHTÖU
- Specific insulation resistance**
> 10 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Flexible use for reeling applications:
Cables with outer diameter < 21.5 mm
5 x outer diameter
Cables with outer diameter > 21.5 mm
6.25 x outer diameter
Flexible use with deflection pulleys:
7.5 x outer diameter
- Nominal voltage**
U₀/U: 600/1000 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Current rating**
VDE 0298 Part 4
- Temperature range**
Max. cond. temperature: +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE NSHTÖU				
0043006	3 G 1.5	12.2	43.2	190
00430053	4 G 1.5	14.8	57.6	220
00430073	5 G 1.5	15.7	72.0	260
0043008	7 G 1.5	18.2	100.8	380
0043009	12 G 1.5	23.9	172.8	720
0043010	18 G 1.5	23.9	259.2	770
0043011	24 G 1.5	27.1	345.6	1000
0043012	30 G 1.5	30.2	432.0	1320
0043013	3 G 2.5	13.5	72.0	250
00430303	4 G 2.5	16.9	96.0	330
00430143	5 G 2.5	18.0	120.0	390
0043015	7 G 2.5	20.6	168.0	510
0043016	12 G 2.5	27.4	288.0	970
0043017	18 G 2.5	27.4	432.0	1100

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0043018	24 G 2.5	31.6	576.0	1450
0043019	30 G 2.5	36.3	720.0	1950
00430203	4 G 4	18.4	153.6	440
00430333	5 G 4	19.6	192.0	520
00430213	4 G 6	19.8	230.4	530
00430343	5 G 6	21.7	288.0	690
00430223	4 G 10	23.4	384.0	830
00430003	5 G 10	25.2	480.0	1000
00430233	4 G 16	25.5	614.4	1170
00430323	5 G 16	27.5	768.0	1400
00430243	4 G 25	32.6	960.0	1830
00430253	4 G 35	34.8	1,344.0	2280
00430263	4 G 50	40.6	1,920.0	3220
00430283	4 G 70	44.8	2,688.0	4200
00430293	4 G 95	51.2	3,648.0	5530

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE VS (N)SHTÖU refer to page 162
- ÖLFLEX® CRANE PUR refer to page 163

Accessories

- STAR STRIP stripping tool refer to page 906
- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX® CRANE VS (N)SHTÖU

Reelable cables for medium to high mechanical stress



Info

- Reinforced outer sheath design
- Central and tear-resistant supporting element
- Suitable for extreme tensile stress

Benefits

- The central supporting element absorbs the tensile loads that occur, thereby allowing reeling, unreeling and deflection for free-hanging cables even over large distances.
- Reeling, unreeling and guiding operations also impose tensile stresses on the cables
- Integrated supporting braid prevents undesirable cable twists, and the formation of so-called corkscrew effects

Application range

- For use in hoists, transport and conveyor systems
- Cables are reeled, unreeling, and guided by roller trains
- In dry or damp interiors, outdoors, or in industrial water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according to IEC 60332.1.2
- Oil-resistant according to EN 60811-2-1
- Good chemical, thermal and mechanical-resistance
- For connecting mobile equipment in hazardous areas acc. to DIN VDE 0165

Approvals



Design

- Strands of tinned-copper wires
- Core insulation: rubber compound type 3GI3
- Central supporting element
- Support braid integrated in the outer sheath
- Outer sheath: rubber compound, type 5GM5

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
> 10 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
- Minimum bending radius**
Flexible use: 7.5 x outer diameter
- Nominal voltage**
U₀/U: 600/1000 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Current rating**
VDE 298 Part 4
- Temperature range**
Flexible use: -25°C to +60°C
Max. cond. temperature: +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Tensile strength (N)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE VS (N)SHTÖU					
0044008	7 G 1.5	18.8	2,000	100.8	430
0044009	12 G 1.5	25.3	2,000	172.8	820
0044010	18 G 1.5	25.3	2,000	259.2	930
0044011	24 G 1.5	30.1	2,000	345.6	1260
0044036	36 G 1.5	34.0	2,000	518.4	1650
0044015	7 G 2.5	21.6	2,000	168.0	630
0044016	12 G 2.5	29.4	2,000	288.0	1150
00440333	5 G 4	19.6	2,000	192.0	510
00440223	4 G 10	23.4	2,000	384.0	830
00440233	4 G 16	25.5	2,000	614.4	1170
00440323	5 G 16	27.5	2,400	768.0	1400
00440243	4 G 25	32.6	3,000	960.0	1850
00440253	4 G 35	34.8	4,000	1,344.0	2250
00440263	4 G 50	40.6	6,000	1,920.0	3200
00440283	4 G 70	44.8	8,000	2,688.0	4200
00440293	4 G 95	51.2	11,000	3,648.0	5550

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE NSHTÖU refer to page 161
- ÖLFLEX® CRANE PUR refer to page 163

Accessories

- EASY STRIP 2 stripping and cutting tool refer to page 905
- V 1311 pressing pliers, hydraulic refer to page 930
- STAR STRIP stripping tool refer to page 906
- Cable shears KT 4 and KT 5 refer to page 904

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APPENDIX

ÖLFLEX® CRANE PUR

Reelable polyurethane cables for low, medium and high mechanical stress



Info

- For various applications
- Lightweight due to minimised diameters
- Halogen-free

Benefits

- Designed with a smaller outer diameter to save space and weight
- Cost-saving due to the use of smaller drums, guide rollers, as well as drive engines when possible
- Reeling, unreeling and guiding operations also impose tensile stresses on the cables
- The central supporting element absorbs the tensile loads that occur, thereby allowing reeling, unreeling and deflection for free-hanging cables even over large distances.
- Integrated supporting braid prevents undesirable cable twists, and the formation of so-called corkscrew effects

Application range

- For use in hoists, transport and conveyor systems
- Cables are reeled, unreeling, and guided by roller trains
- In dry or damp interiors, outdoors, or in industrial water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5

Product features

- Halogen-free and flame-retardant (IEC 60332.1.2)
- Oil-resistant according to EN 60811-2-1
- Good chemical, thermal and mechanical-resistance
- For connecting mobile equipment in hazardous areas acc. to DIN VDE 0165

Approvals



Design

- Strands of bare copper wires
- Core insulation: TPE compound
- Central supporting element
- Support braid integrated in the outer sheath
- Outer sheath: PUR compound, halogen-free

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
> 10 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 7.5 x outer diameter
- Nominal voltage**
U₀/U: 600/1000 V
- Test voltage**
3500 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Current rating**
VDE 298 Part 4
- Temperature range**
Flexible use: -40°C
Max. cond. temperature: +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Tensile strength (N)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE PUR					
0045207	4 G 1.5	10.9	500	57.6	169
0045209	5 G 1.5	11.6	1,000	72.0	197
0045210	7 G 1.5	12.9	2,500	100.8	239
0045211	12 G 1.5	17.6	2,500	172.8	401
0045212	18 G 1.5	17.5	2,500	259.2	507
0045213	24 G 1.5	20.7	2,500	345.6	673
0045215	30 G 1.5	32.5	3,000	432.0	1530
0045214	36 G 1.5	31.4	3,000	518.4	1011
0045216	4 G 2.5	12.2	500	96.0	227
0045218	5 G 2.5	13.2	2,000	120.0	274
0045220	7 G 2.5	15.4	3,000	168.0	358
0045221	12 G 2.5	21.6	3,000	288.0	619
0045222	18 G 2.5	21.5	3,000	432.0	793
0045223	24 G 2.5	25.5	3,000	576.0	1123
0045224	30 G 2.5	34.7	3,000	720.0	1641
0045225	4 G 4	14.3	1,000	153.6	341
0045227	5 G 4	15.5	2,000	192.0	411
0045228	4 G 6	16.6	1,500	230.4	457
0045229	5 G 6	17.7	2,000	288.0	538
0045230	4 G 10	19.2	2,000	384.0	674
0045237	5 G 10	21.6	2,500	480.0	825
0045231	4 G 16	22.2	2,500	614.4	966
0045238	5 G 16	25.6	3,500	768.0	1222
0045232	4 G 25	27.6	3,500	960.0	1506
0045233	4 G 35	31.0	4,500	1,344.0	2004
0045234	4 G 50	36.1	6,000	1,920.0	2838
0045240	3x25+3G6	25.7	2,000	892.8	1380
0045241	3x35+3G6	27.6	2,500	1,180.8	1695
0045242	3x50+3G10	32.1	3,500	1,728.0	2307
0045235				403.2	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE NSHTÖU refer to page 161
- ÖLFLEX® CRANE VS (N)SHTÖU refer to page 162

Accessories

- EASY STRIP 2 stripping and cutting tool refer to page 905
- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX® CRANE

Highly flexible and weather-proof rubber cables with support element



Info

- Suitable for outdoor use
- Integrated supporting element
- Also suitable for power chains and cable trolley systems

Benefits

- Weather-resistant for harsh environmental conditions
- Very flexible due to extra-fine wire conductor design
- Cables up to a max. 24 cores can also be used in power chains

Application range

- Machinery and equipment that are permanently exposed to the weather; conveying and hoisting equipment; construction machinery; shipyard machinery
- Suitable for use in special conditions such as industrial or sea water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5
- For highly flexible applications, please follow the assembly guidelines for ÖLFLEX® FD cables in power chains; see appendix T3

Product features

- Flame-retardant according to IEC 60332.1.2
- Not suitable for use on guide pulleys or drums under tensile load
- Refer to the article table for the tensile strength of the support element
- The cable should be installed in a way that the supporting element can absorb the tensile forces
- The mobility of the cores must not be affected by the clamps

Approvals



Design

- Strands of bare copper wires
- Core insulation: rubber compound
- Special supporting element as strain relief
- Outer sheath: rubber compound, type EM2

Technical data

Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers

Based on
VDE 0250

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
0.15 mm wire diameter at 1.0 mm²
0.20 mm wire diameter from 1.5 mm²

Minimum bending radius
Flexible use: 12.5 x outer diameter

Nominal voltage
U₀/U: 300/500 V

Test voltage
3000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
Flexible use: -25°C to +80°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Tensile strength (N)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE					
0039001	2 X 1.0	7.4	300	20.0	89
0039002	3 G 1.0	8.3	300	30.0	106
00390033	4 G 1.0	8.9	300	40.0	127
00390043	5 G 1.0	10.4	300	48.0	149
0039107	7 G 1.0	12.9	300	69.0	206
0039109	9 G 1.0	14.4	300	91.0	281
0039054	12 G 1.0	18.5	360	124.0	422
0039116	16 G 1.0	17.9	480	165.0	407
0039055	18 G 1.0	19.2	540	185.0	451
0039120	20 G 1.0	20.5	600	206.0	530
0039056	24 G 1.0	22.1	720	247.0	646
0039057	36 G 1.0	26.1	1,080	371.0	863
0039148	48 G 1.0	29.6	1,440	461.0	1222
0039017	2 X 1.5	8.0	300	30.0	108
0039018	3 G 1.5	8.7	300	44.0	128
00390193	4 G 1.5	9.9	300	59.0	158
00390203	5 G 1.5	10.9	300	74.0	188
0039061	7 G 1.5	14.0	315	103.0	260
0039208	8 G 1.5	15.2	360	122.0	300
0039209	9 G 1.5	15.9	405	138.0	375
0039210	10 G 1.5	17.0	450	153.0	427

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Tensile strength (N)	Copper index (kg/km)	Weight (kg/km)
0039058	12 G 1.5	19.9	540	185.0	557
0039059	18 G 1.5	20.9	810	277.0	608
0039060	24 G 1.5	23.4	1,080	370.0	825
0039034	2 X 2.5	9.7	300	49.0	145
0039035	3 G 2.5	10.2	300	74.0	173
00390363	4 G 2.5	11.6	300	98.0	219
00390373	5 G 2.5	12.4	375	120.0	259
0039307	7 G 2.5	16.6	525	171.0	378
0039309	9 G 2.5	18.9	675	229.0	518
0039312	12 G 2.5	23.3	900	308.0	770
0039316	16 G 2.5	22.8	1,200	411.0	749
0039318	18 G 2.5	24.4	1,350	432.0	837
0039324	24 G 2.5	28.5	1,800	576.0	1184
0039336	36 G 2.5	33.2	2,700	864.0	1634
00390463	4 G 4	15.2	480	157.0	307
00390473	5 G 4	16.8	600	197.0	394
00390483	4 G 6	16.8	720	236.0	409
00390493	5 G 6	19.2	900	295.0	528
00390503	4 G 10	21.8	1,200	393.0	698
00390513	5 G 10	24.6	1,500	491.0	853
00390523	4 G 16	25.4	1,920	629.0	974
00390533	5 G 16	28.0	2,400	787.0	1226

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE NSHTÖU refer to page 161
- ÖLFLEX® CRANE VS (N)SHTÖU refer to page 162

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654

ÖLFLEX® CRANE 2S

Flexible at cold temperatures, PVC cables with external steel supporting elements



Info

- Double tensile strength safety



Benefits

- Two steel support elements that are integrated into the outer sheath on opposite sides absorb the tensile forces during operation
- Tensile strength of 2100 N per supporting element

Application range

- For connecting movable control panels and consoles
- As a self-supporting shaft cable; in high rack systems
- Suitable for outdoor applications
- Do not use for lift applications!
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3

Product features

- Flame-retardant according to IEC 60332.1.2
- Flexible at low temperatures

Approvals



Design

- Strands of bare copper wires
- Special PVC-based core insulation
- Special textile wrapping to improve sliding movement between the sheath and cores
- Special PVC-based outer sheath
- Opposing, integrated steel supporting elements

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Based on**
VDE 0250
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 20 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -15 °C to +70 °C

Article number	Number of cores and mm ² per conductor	Cable Ø (mm)	Distance between strain wires (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE 2S					
0027503	8 G 1.5	14.7	20	115.0	372.5
0027504	12 G 1.5	16.2	21	173.0	439
0027505	20 G 1.5	20.1	25	288.0	674

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Accessories

- EASY STRIP 2 stripping and cutting tool refer to page 905

ÖLFLEX® LIFT

Flexible at cold temperatures, PVC lift cables with supporting element



Info

- High operating efficiency
- Suspension length up to 90 m
- VDE-tested and registered

Benefits

- Special cable design for a long service life
- Attractive price and maximum operational efficiency
- Very flexible due to extra-fine wire conductor design

Application range

- Lift cable that ensures the electrical integrity in various areas of lift construction
- Suitable for use in outdoor lifts
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according to IEC 60332.1.2
- Good weather-resistance

Approvals



- VDE register no. 7039

Design

- Strands of bare copper wires
- Special PVC-based core insulation
- Supporting element made of hemp or aramid
- Fleece-wrapping between cores and sheath
- Special PVC-based outer sheath

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Suspension length**
refer to article table
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 20 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -15°C to +70°C
- VDE-tested**
VDE register no. 7039

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Max. suspension length (m)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® LIFT					
0027020	7 G 1.0	11.5	80	68.0	178
0027022	12 G 1.0	16.3	80	116.0	332
0027024	18 G 1.0	16.4	70	173.0	405
0027027	24 G 1.0	19.4	60	231.0	533.25
0027029	36 G 1.0	25.1	90	346.0	887

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT T refer to page 167
- ÖLFLEX® LIFT S refer to page 168

Accessories

- Round cable wedged clamps refer to page 973
- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® LIFT T

Flexible at cold temperatures, PVC lift cables with textile braiding and supporting element



Info

- Robust cable design
- Suspension length up to 110 m
- VDE-tested and registered



Benefits

- Special cable design for a long service life
- Able to withstand mechanical stress at high suspension lengths
- Very flexible due to extra-fine wire conductor design

Application range

- Lift cable that ensures the electrical integrity in various areas of lift construction
- Suitable for use in outdoor lifts
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according to IEC 60332.1.2
- Good weather-resistance
- Flexible at low temperatures

Approvals



- VDE register no. 7040

Design

- Strands of bare copper wires
- Special PVC-based core insulation
- Supporting element made of hemp or aramid
- Fleece-wrapping between cores and sheath
- Support braid made of textile fibre blend
- Special PVC-based outer sheath

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Suspension length**
refer to article table
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 20 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -15°C to +70°C
- VDE-tested**
VDE register no. 7040

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Max. suspension length (m)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® LIFT T					
0027506	12 G 0.75	18.1	110	86.0	360
0027507	18 G 0.75	18.3	110	130.0	460
0027508	24 G 0.75	21.0	80	173.0	530
0027001	7 G 1.0	14.5	80	67.0	225
0027002	12 G 1.0	19.2	80	115.0	410
0027008	18 G 1.0	19.5	70	173.0	475
0027004	20 G 1.0	20.3	70	192.0	525
0027005	24 G 1.0	22.1	60	230.0	600
0027007	36 G 1.0	28.6	90	346.0	950
0027006	28 G 1,0 + 2 x (0,5) C	25.2	90	293.0	765

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT refer to page 166
- ÖLFLEX® LIFT S refer to page 168

Accessories

- Round cable wedged clamps refer to page 973
- Cable shears KT 4 and KT 5 refer to page 904

ÖLFLEX® LIFT S

Flexible at cold temperatures, PVC lift cables with textile braiding and steel supporting element



Info

- Robust cable design
- Suspension length up to 150 m

Benefits

- Special cable design for a long service life
- Practical experience and long-term tests proved that the cable can withstand extreme stress
- High suspension lengths due to the steel wire supporting element
- Very flexible due to extra-fine wire conductor design

Application range

- Lift cable that ensures the electrical integrity in various areas of lift construction
- Suitable for use in outdoor lifts
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3
- The assembly and handling guidelines for ÖLFLEX® CRANE cables can be found in the catalogue appendix, technical table T4; for ÖLFLEX(R) LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according to IEC 60332.1.2
- Good weather-resistance
- Flexible at low temperatures

Approvals



Design

- Strands of bare copper wires
- Special PVC-based core insulation
- Steel support element
- Fleece-wrapping between cores and sheath
- Support braid made of textile fibre blend
- Special PVC-based outer sheath

Technical data

- Core identification code**
Black with white numbers acc. to VDE 0293
- Suspension length**
refer to article table
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Minimum bending radius**
Flexible use: 20 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
4000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -15°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Max. suspension length (m)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® LIFT S					
0027009	24 G 1.0	22.1	150	230.0	680
0027010	36 G 1.0	28.6	150	346.0	1092

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT refer to page 166
- ÖLFLEX® LIFT T refer to page 167

Accessories

- Round cable wedged clamps refer to page 973
- STAR STRIP stripping tool refer to page 906

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ACCESSORIES
APPENDIX

ÖLFLEX® CRANE F

Weather-resistant flat rubber cables



Info

- For outdoor cable trolley application
- Space-saving installation
- Also suitable for power chains and lift applications



Benefits

- Weather-resistant for harsh environmental conditions
- Flat cables need less space than round cables
- Smaller bending radii is possible

Application range

- In crane systems on building sites and shipyards for fixed installation, or for flexible use in cable trolley systems
- Sewage treatment plants, steelworks and high rack facilities
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX(R) LIFT cables can be found in the appendix, selection table A3

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Strands of bare or tinned-copper wires
- Core insulation: rubber compound
- Outer sheath: special rubber compound

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Based on**
VDE 0250 (NGFLGÖU)
- Specific insulation resistance**
> 10 GOhm x cm
- Conductor stranding**
Copper conductor according to VDE 0295 / IEC 60228
up to 25 mm²: extra-fine wire, class 6
from 35 mm²: fine wire, class 5
- Minimum bending radius**
Flexible use: 10 x cable thickness
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -25°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer dimensions, width x height (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE F				
0041041	4 G 1.5	17.5 x 6.2	58.0	200
0041042	5 G 1.5	21.5 x 6.2	72.0	240
0041043	7 G 1.5	29.0 x 6.2	101.0	360
0041044	8 G 1.5	31.5 x 6.2	115.0	370
0041045	10 G 1.5	40.0 x 6.5	144.0	520
0041046	12 G 1.5	47.0 x 6.5	173.0	620
0041047	4 G 2.5	21.0 x 7.5	96.0	280
0041048	5 G 2.5	27.0 x 7.5	120.0	400
0041049	7 G 2.5	35.0 x 7.5	168.0	520
0041050	8 G 2.5	39.0 x 7.5	192.0	550
0041051	12 G 2.5	56.0 x 8.0	288.0	800
0041052	4 G 4	26.0 x 9.0	154.0	410
0041053	7 G 4	42.0 x 9.0	269.0	700
0041054	4 G 6	29.0 x 9.5	230.0	600
0041055	5 G 6	35.0 x 9.5	288.0	650
0041056	7 G 6	42.0 x 9.5	403.0	850
0041057	4 G 10	33.0 x 11.0	384.0	800
0041058	5 G 10	44.0 x 11.0	480.0	1000
0041059	4 G 16	38.0 x 13.0	614.0	1150
0041060	4 G 25	49.5 x 15.0	960.0	1700
0041061	4 G 35	55.0 x 17.0	1,344.0	2360
0041062	4 G 50	63.0 x 19.0	1,920.0	3000
0041063	4 G 70	71.0 x 22.0	2,688.0	4000

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT F refer to page 171

Accessories

- Cable trolley systems refer to page 970
- flat cable wedge clamps refer to page 973

ÖLFLEX® CRANE CF

Weather-resistant flat rubber cables with copper screening



Info

- For outdoor cable trolley application
- EMC-compliant

Benefits

- Weather-resistant for harsh environmental conditions
- Flat cables need less space than round cables
- Smaller bending radii is possible
- Copper braiding screens the cable against electromagnetic interference

Application range

- In crane systems on building sites and shipyards for fixed installation, or for flexible use in cable trolley systems
- Sewage treatment plants, steelworks and high rack facilities
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX® LIFT cables can be found in the appendix, selection table A3

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Strands of bare or tinned-copper wires
- Core insulation: rubber compound
- Individual core screening consist of
 - plastic foil wrapping
 - tin-plated copper braiding
 - plastic foil wrapping
- Outer sheath: special rubber compound

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Based on

VDE 0250 NGFLGOEU (unscreened)



Specific insulation resistance

> 10 GOhm x cm



Conductor stranding

Copper conductor according to VDE 0295 / IEC 60228
up to 25 mm²: extra-fine wire, class 6
from 35 mm²: fine wire, class 5



Minimum bending radius

Flexible use: 10 x cable thickness



Nominal voltage

U_p/U: 300/500 V



Test voltage

2000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Flexible use: -25°C to +90°C

Article number	Number of cores and mm ² per conductor	Outer dimensions, width x height (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CRANE CF				
0041075	4 G 1.5	18.5 x 6.5	79.0	220
0041076	8 G 1.5	36.0 x 7.5	155.0	470
0041077	12 G 1.5	54.5 x 8.5	238.0	745
0041078	4 G 2.5	22.5 x 7.5	141.0	320
0041079	12 G 2.5	69.5 x 9.5	499.0	1180
0041080	4 G 4	29.0 x 10.5	219.0	505
0041081	4 G 6	31.0 x 10.5	302.0	605
0041082	4 G 10	36.0 x 11.5	472.0	840
0041083	4 G 16	41.5 x 13.5	687.0	1180
0041084	4 G 25	47.0 x 15.0	1,114.0	1605
0041085	4 G 35	55.0 x 17.0	1,482.0	2520
0041086	4 G 50	66.0 x 20.5	2,238.0	3000

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE F refer to page 169
- ÖLFLEX® LIFT F refer to page 171

Accessories

- Cable trolley systems refer to page 970
- flat cable wedge clamps refer to page 973

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ÖLFLEX® LIFT F

Flexible at cold temperatures, PVC flat cables



Info

- For cable trolley application
- Space-saving installation
- Also suitable for power chains and lift applications



Benefits

- Flat cables need less space than round cables
- Smaller bending radii is possible

Application range

- For hoisting equipment and conveyor systems
- Indoor cranes and high-rack facilities
- As supply line for moving machine parts
- According to VDE definition, this can also be used as a lift control cable with up to 35 m suspension length, and a maximum speed of travel at 1.6 m/s
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX® LIFT cables can be found in the appendix, selection table A3

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



- Meets the requirements of the harmonised PVC flat cable H07VVH6-F

Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- PVC-based outer sheath

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Based on**
EN 50214/VDE 0283-2 (H05VVH6-F or H07VVH6-F)
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
U0/U 300/500 V versions, fine wire according to VDE 0295 Class 5 or IEC 60228 Cl. 5
U0/U 450/750 V versions, extra-fine wire according to VDE 0295 Class 6 or IEC 60228 Cl. 6
- Minimum bending radius**
Flexible use: 10 x cable thickness
- Nominal voltage**
Up to 1.0 mm²: U₀/U: 300/500 V
From 1.5 mm²: U₀/U: 450/750 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use:
0 °C to +70 °C (up to 1.0 mm²)
-15 °C to +70 °C (as from 1.5 mm²)

Article number	Number of cores and mm ² per conductor	Outer dimensions, width x height (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® LIFT F				
Nominal voltage U₀/U: 300/500 V, temperature range: 0°C to +70°C				
0042020	12 G 1.0	35.0 x 4.3	115.0	392
0042021	16 G 1.0	46.0 x 4.3	154.0	521
0042022	20 G 1.0	57.0 x 4.3	192.0	645
0042023	24 G 1.0	68.0 x 4.3	230.0	772
Nominal voltage U₀/U: 450/750 V, temperature range: -15°C to +70°C				
00420013	4 G 1.5	15.0 x 5.0	58.0	132
00420023	5 G 1.5	19.0 x 5.0	72.0	170
0042003	7 G 1.5	26.5 x 5.0	101.0	236
0042004	8 G 1.5	28.5 x 5.0	115.0	266
0042005	10 G 1.5	35.5 x 5.0	144.0	333
0042006	12 G 1.5	41.5 x 5.0	173.0	422
00420073	4 G 2.5	18.4 x 5.7	96.0	206
00420083	5 G 2.5	23.4 x 5.7	120.0	257
0042009	7 G 2.5	32.0 x 5.7	168.0	345
0042010	8 G 2.5	34.5 x 5.7	192.0	390
0042050	12 G 2.5	51.5 x 5.7	288.0	580
00420113	4 G 4	20.4 x 6.6	154.0	343
0042012	7 G 4	36.6 x 6.6	269.0	589
00420133	4 G 6	23.2 x 7.3	230.0	425
00420143	4 G 10	28.0 x 9.0	384.0	709
00420153	4 G 16	34.0 x 10.5	614.0	1015
00420163	4 G 25	42.0 x 12.7	960.0	1366

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE F refer to page 169

Accessories

- Cable trolley systems refer to page 970
- flat cable wedge clamps refer to page 973

Expanded ambient temperatures

PVC cables (-20°C to +90°C)

ÖLFLEX® HEAT 105 MC

Colour-coded connection cables made of high heat-resistant PVC



Benefits

- Possible to operate at higher peak temperature (almost 30% more) compared to conventional PVC cables

Application range

- For the connection of motors, transformers, reels, plants, machines, appliances, switch cabinets and other installations with a higher operating or ambient temperature

Product features

- Flame-retardant according to IEC 60332.1.2
- Resistant to acids, alkalis and certain oils at room temperature
- Good UV-resistance

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: PVC, high heat-resistance
- Cores twisted in layers
- Outer sheath: PVC, heat-resistant, black (RAL 9005)

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 7 cores: ÖLFLEX® colour code, refer to Appendix T7
- Based on**
VDE 0281 or 0250
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²
- Minimum bending radius**
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2500 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation: -20°C to +90°C
Short-term: +105 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 105 MC				
0026001	2 X 0.75	6.2	14.4	53
0026002	3 G 0.75	6.5	21.6	62
00260033	4 G 0.75	7.1	28.8	76
00260043	5 G 0.75	8.0	36.0	95
0026005	7 G 0.75	9.7	50.0	113
0026006	2 X 1	6.5	19.2	61
0026007	3 G 1	6.9	29.0	74
00260083	4 G 1	7.7	38.4	89
00260093	5 G 1	8.4	48.0	110
0026010	7 G 1	10.2	67.0	130
0026011	2 X 1.5	7.5	29.0	78
0026012	3 G 1.5	8.1	43.2	98
00260133	4 G 1.5	8.9	57.6	122
00260143	5 G 1.5	10.0	72.0	144
0026015	7 G 1.5	12.3	101.0	180

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

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ÖLFLEX® HEAT 145 MC

Electron beam cross-linked cables for more demanding application requirements



Info

- Improved characteristics in the event of a fire
- Voltage class from 1.5 mm² 450/750 V
- Please note: Discontinued product!

Benefits

- For safety in areas with high density of people
- Reduction of flame propagation and density and toxicity of smoke gases in event of fire
- Minimises damage to buildings and equipment caused by the formation of toxic acid fumes in fires
- Certified for maritime applications

Application range

- For the wiring and connection of lighting, heating appliances, control cabinets, and distributors in mechanical and plant engineering
- For use in traffic regulation systems and outdoors

Product features

- Halogen-free according to IEC 60754-1
Flame-retardant according to IEC 60332-1-2
No flame propagation according to IEC 60332-3-24 or IEC 60332-3-25
- Good moisture, ozone and UV-resistance
- Abrasion and notch-resistant

Approvals



Design

- Fine-wire, tinned-copper conductor
- Electron beam cross-linked polyolefin copolymer insulation
- Cores twisted in layers
- Outer sheath: electron beam cross-linked polyolefin copolymer, black

Technical data

Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 7 cores:
black with white numbers (with gn/ye)

Approvals
GL (Germanischer Lloyd)

Conductor stranding
Fine wire according to VDE 0295, class 5/
IEC 60228 class 5 from 0.5 mm²

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
Up to 1.0mm² U₀/U 300/500 V
From 1.5mm² U₀/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation

Test voltage
3500 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
Fixed installation:
-55 °C to +125 °C
Short-term: up to +145 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 145 MC 300/500 V				
0026805	2 X 0.75	5.9	14.4	40
0026806	3 G 0.75	6.2	21.6	53
00268073	4 G 0.75	6.9	28.8	69
00268083	5 G 0.75	7.7	36.0	86
0026815	2 X 1	6.3	19.2	50
0026816	3 G 1	6.8	28.8	67
00268173	4 G 1	7.4	38.4	87
00268183	5 G 1	8.3	48.0	107
0026819	7 G 1	9.9	67.2	152
ÖLFLEX® HEAT 145 MC 450/750 V				
0026825	2 X 1.5	7.6	28.8	71
0026826	3 G 1.5	8.1	43.2	96
00268273	4 G 1.5	8.8	57.6	123
00268293	5 G 1.5	9.8	72.0	156
0026830	7 G 1.5	12.0	101.0	224
0026831	10 G 1.5	14.6	144.0	322
0026832	12 G 1.5	14.6	173.0	316
0026833	16 G 1.5	16.2	230.0	415
0026837	25 G 1.5	21.1	360.0	731
0026838	2 X 2.5	9.0	48.0	102
0026839	3 G 2.5	9.8	72.0	145
00268403	4 G 2.5	10.8	96.0	189
00268413	5 G 2.5	12.0	120.0	235
0026842	7 G 2.5	14.6	168.0	344
00268503	4 G 4	12.2	153.6	276
00268513	5 G 4	13.5	192.0	334
00268563	5 G 6	15.4	288.0	494

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAFFIC 3GKW flex refer to page 141

Expanded ambient temperatures

Cross-linked cables (-55 °C to +125 °C)

ÖLFLEX® HEAT 145 C MC

Electron beam cross-linked cables for more demanding application requirements



Info

- Improved characteristics in the event of a fire
- Screened to comply with EMC
- Please note: Discontinued product!

Benefits

- For safety in areas with high density of people
- Reduction of flame propagation and density and toxicity of smoke gases in event of fire
- Minimises damage to buildings and equipment caused by the formation of toxic acid fumes in fires
- Certified for maritime applications
- Copper braiding screens the cable against electromagnetic interference

Application range

- For the wiring and connection of lighting, heating appliances, control cabinets, and distributors in mechanical and plant engineering
- For use in traffic regulation systems and outdoors

Product features

- Halogen-free according to IEC 60754-1
- Flame-retardant according to IEC 60332-1-2
- No flame propagation according to IEC 60332-3-24 or IEC 60332-3-25
- Good moisture, ozone and UV-resistance
- Abrasion and notch-resistant

Approvals



Design

- Fine-wire, tinned-copper conductor
- Electron beam cross-linked polyolefin copolymer insulation
- Cores twisted in layers
- Tinned-copper braiding
- Outer sheath: electron beam cross-linked polyolefin copolymer, black

Technical data

- Core identification code**
Black with white numbers (without gn/ye)
- Approvals**
GL (Germanischer Lloyd)
- Specific insulation resistance**
>2 TOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²
- Minimum bending radius**
Occasional flexing: 15 x outer diameter
Fixed installation: 5 x outer diameter
- Nominal voltage**
Up to 1.0mm² U₀/U 300/500 V
From 1.5mm² U₀/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation
- Test voltage**
C/C 3500 V
C/S 2500 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation:
-55 °C to +125 °C
Short-term: up to +145 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 145 C MC screened 300/500 V				
0026908	2 X 0.75	6.9	38.0	79
0026909	3 X 0.75	6.9	50.0	96
0026910	4 X 0.75	7.6	58.0	116
0026911	5 X 0.75	8.3	70.0	139
0026912	7 X 0.75	9.9	84.9	186
0026916	2 X 1	7.0	43.3	90
0026917	3 X 1	7.4	56.0	104
0026918	4 X 1	8.1	66.0	129
0026919	5 X 1	8.9	95.0	153
0026920	7 X 1	10.5	109.0	211
ÖLFLEX® HEAT 145 C MC screened 450/750 V				
0026924	2 X 1.5	8.2	58.0	114
0026925	3 X 1.5	8.7	71.0	132
0026926	4 X 1.5	9.4	86.0	163
0026927	5 X 1.5	10.5	104.0	200
0026928	7 X 1.5	12.6	136.0	273
0026932	2 X 2.5	9.8	96.0	157
0026933	3 X 2.5	10.4	146.0	198
0026934	4 X 2.5	11.5	150.0	236
0026935	5 X 2.5	12.6	200.0	287
0026938	4 X 4	12.8	220.0	317
0026939	5 X 4	14.3	259.0	376

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® TRAFFIC 3GKW C-flex refer to page 142

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-SC refer to page 719
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® HEAT 180 SiHF

Silicone cables with extended temperature range



Info

- The classic for multi-functional use



Benefits

- Flexibility simplifies installation where space is limited
- Possesses insulating properties after combustion due to remaining SiO₂ ash on the conductor

Application range

- Areas with high ambient temperatures where insulating and sheath materials of conventional cables will embrittle after a short while
- Typical fields of application
 - Steel, cement, ceramic and iron works
 - Bakery equipment and industrial furnaces
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Galvanisation technology

Product features

- Halogen-free and flame-retardant (IEC 60332.1.2)
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances

Approvals



Design

- Fine-wire, tinned-copper conductor
- Silicone-based core insulation
- Cores twisted in layers
- Silicone-based outer sheath, colour red-brown

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
>200 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
-50 °C to +180 °C
(adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 SiHF				
0046001	2 X 0.75	6.4	14.4	59
0046002	3 G 0.75	6.8	21.6	70
00460033	4 G 0.75	7.6	28.8	89
00460043	5 G 0.75	8.5	36.0	112
0046005	6 G 0.75	9.2	43.2	131
0046006	7 G 0.75	9.2	50.4	136
0046007	2 X 1	6.6	19.2	66
0046008	3 G 1	7.0	29.0	79
00460093	4 G 1	7.9	38.4	101
00460103	5 G 1	8.8	48.0	127
0046012	7 G 1	9.5	67.0	156
0046013	2 X 1.5	7.6	29.0	90
0046014	3 G 1.5	8.0	43.0	109
00460153	4 G 1.5	8.8	58.0	134
00460163	5 G 1.5	9.6	72.0	163
0046018	7 G 1.5	10.4	101.0	202
0046039	12 G 1.5	14.0	173.0	361
0046040	16 G 1.5	16.2	230.4	478
0046041	20 G 1.5	17.5	288.0	574

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0046042	24 G 1.5	19.8	345.6	720
0046019	2 X 2.5	8.8	48.0	128
0046020	3 G 2.5	9.7	72.0	167
00460213	4 G 2.5	10.6	96.0	206
00460223	5 G 2.5	11.6	120.0	251
0046024	7 G 2.5	12.6	168.0	313
0046025	2 X 4	10.8	76.8	196
0046026	3 G 4	11.5	115.0	241
00460273	4 G 4	12.6	154.0	300
00460283	5 G 4	14.0	192.0	374
0046030	7 G 4	15.6	269.0	486
0046031	2 X 6	12.4	116.0	268
0046032	3 G 6	13.2	173.0	333
00460333	4 G 6	14.7	230.0	425
00460343	5 G 6	16.6	288.0	538
0046036	7 G 6	18.6	403.0	705
00460373	4 G 10	19.4	384.0	707
00460453	5 G 10	21.6	480.0	878
00460383	4 G 16	21.4	614.0	1004

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 H05SS-F EWKF refer to page 176
- ÖLFLEX® HEAT 180 EWKF refer to page 179

Expanded ambient temperatures

Silicone cables (-50°C to +180°C)

ÖLFLEX® HEAT 180 H05SS-F EWKF

Europe-wide standardised silicone connection cables with increased mechanical performance



Info

- International use in combination with proven EWKF quality

Benefits

- Europe-wide use due to harmonisation
- Notch and tear-resistant silicone compounds reduce damage due to mechanical stress
- For harsh environments, more durable than conventional H05SS-F standardised cables
- Flexibility simplifies installation where space is limited
- Possesses insulating properties after combustion due to remaining SiO₂ ash on the conductor

Application range

- Areas with high ambient temperatures and very high mechanical stress
- Typical fields of application
 - Steel, cement, ceramic and iron works
 - Bakery equipment and industrial furnaces
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Galvanisation technology

Product features

- Halogen-free and flame-retardant (IEC 60332.1.2)
- Good hydrolysis and UV-resistance
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances
- **EWKF:** Increased initial tear propagation and notch resistance

Approvals



- HD 22.15 S2 (H05SS-F)

Design

- Fine-wire, tinned-copper conductor
- Core insulation: based on EWKF silicone
- Cores twisted together
- Outer sheath: silicone-based EWKF, notch-resistant, black (RAL 9005)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Approvals**
HD 22.15 S2 (H05SS-F)
- Specific insulation resistance**
>200 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
-50 °C to +180 °C
(adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 H05SS-F EWKF				
0046900	2 X 0.75	6.4	14.4	54
0046901	3 G 0.75	7.0	21.6	67
00469023	4 G 0.75	7.6	28.8	87
00469033	5 G 0.75	8.5	36.0	105
0046904	2 X 1	6.8	19.2	63
0046905	3 G 1	7.2	28.8	81
00469063	4 G 1	7.9	38.4	98
00469073	5 G 1	8.8	48.0	121
0046908	2 X 1.5	8.4	28.8	84
0046909	3 G 1.5	8.9	43.2	103
00469103	4 G 1.5	9.9	57.6	128
00469113	5 G 1.5	10.9	72.0	154
0046912	2 X 2.5	9.8	48.0	141
0046913	3 G 2.5	10.4	72.0	158
00469143	4 G 2.5	11.6	96.0	195
00469153	5 G 2.5	12.9	120.0	241
0046916	3 G 4	12.3	115.2	239
00469173	4 G 4	13.7	153.6	312
0046919	3 G 6	14.0	172.8	345
00469203	4 G 6	15.6	230.4	451

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 EWKF refer to page 179
- ÖLFLEX® HEAT 180 EWKF C refer to page 180

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SILVYN® SKINTOP® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® HEAT 180 MS

Certified silicone cables for North America (AWM recognized)



Info

- **MS = Multi-Standard**
For use in the USA and Canada
- **UL AWM Style 4476 (150°C/600V)**



Benefits

- Certified for the USA and Canada for export-oriented appliance and apparatus manufacturers
- Thicker cable design meets the requirements of the FT-1 flame test and also approved for the external interconnection of apparatuses and appliances
- Flexibility simplifies installation where space is limited
- Possesses insulating properties after combustion due to remaining SiO₂ ash on the conductor

Application range

- Areas with high ambient temperatures where insulating and sheath materials of conventional cables will embrittle after a short while
- Typical fields of application
 - Steel, cement, ceramic and iron works
 - Bakery equipment and industrial furnaces
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Galvanisation technology

Product features

- Metric flexible conductor design
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Good hydrolysis and UV-resistance
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances

Approvals



- UL AWM 4476 and cUL AWM II A/B
- Special product with AWM rating 200°C/600 Vis available upon request
- Multi-core type AWM cables (Appliance Wiring Material) shall be permitted for industrial machinery (USA) only when part of a listed assembly suitable for the intended use. NFPA 79 Edition 2007 § 12.2.7.3

Design

- Fine-wire, tinned-copper conductor
- Silicone-based core insulation
- Cores twisted together
- Silicone-based outer sheath, colour black (RAL 9005)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Approvals**
UL AWM Style 4476 (Construction B)
cUL AWM II A/B (Canada)
- Conductor stranding**
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
(Refer to Appendix T16 for the matching US conductor sizes in AWG standard)
- Minimum bending radius**
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
Working voltage UL: 600 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
According to VDE: -50 °C to +180 °C
Normatively acc. to UL Style: up to +150 °C (adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 MS				
0046600	2 X 0.5	7.4	9.8	72
0046601	3 G 0.5	7.8	14.7	83
00466023	4 G 0.5	8.5	19.6	99
00466033	5 G 0.5	9.2	24.5	119
0046604	7 G 0.5	9.9	34.3	142
0046612	2 X 1	8.2	19.2	93
0046613	3 G 1	8.7	28.8	110
00466143	4 G 1	9.4	38.4	133
00466153	5 G 1	10.3	48.0	160
0046616	7 G 1	11.1	67.2	195
0046617	12 G 1	14.9	115.2	345
0046618	2 X 1.5	8.8	28.8	113
0046619	3 G 1.5	9.3	43.2	135
00466203	4 G 1.5	10.1	57.6	165
00466213	5 G 1.5	11.1	72.0	200
0046622	7 G 1.5	12.0	100.8	246
0046623	12 G 1.5	16.1	172.8	437
0046625	18 G 1.5	18.8	259.2	613
0046626	25 G 1.5	22.9	360.0	904
0046628	2 X 2.5	9.6	48.0	146
0046629	3 G 2.5	10.2	72.0	178
00466303	4 G 2.5	11.1	96.0	220
00466313	5 G 2.5	12.2	120.0	269
0046633	3 G 4	11.5	115.2	246
00466343	4 G 4	12.6	153.6	307
00466353	5 G 4	14.2	192.0	389
0046636	3 G 6	14.9	172.8	396
00466373	4 G 6	16.4	230.4	495
00466383	5 G 6	18.0	288.0	608

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 C MS refer to page 178

Expanded ambient temperatures

Silicone cables (-50°C to +180°C)

ÖLFLEX® HEAT 180 C MS

Screened and approved silicone cables for North America (AWM recognized)



Info

- **MS = Multi-Standard**
For use in the USA and Canada
- **UL AWM Style 4476 (150°C/600V)**
- **EMC compliant copper screening**

Benefits

- Certified for the USA and Canada for export-oriented appliance and apparatus manufacturers
- Thicker cable design meets the requirements of the FT-1 flame test and also approved for the external interconnection of apparatuses and appliances
- Flexibility simplifies installation where space is limited
- Copper braiding screens the cable against electromagnetic interference

Application range

- Areas with high ambient temperatures where insulating and sheath materials of conventional cables will embrittle after a short while
- Typical fields of application
 - Steel, cement, ceramic and iron works
 - Bakery equipment and industrial furnaces
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Galvanisation technology

Product features

- Metric flexible conductor design
- Halogen-free and flame-retardant (IEC 60332.1.2)
- Good hydrolysis and UV-resistance
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances

Approvals



- UL AWM 4476 and cUL AWM II A/B
- Special product with AWM rating 200°C/600 Vis available upon request
- Multi-core type AWM cables (Appliance Wiring Material) shall be permitted for industrial machinery (USA) only when part of a listed assembly suitable for the intended use. NFPA 79 Edition 2007 §12.2.7.3

Design

- Fine-wire, tinned-copper conductor
- Silicone-based core insulation
- Cores twisted together
- Tinned-copper screen braiding, interleaved plastic foil wrapping
- Silicone-based outer sheath, colour black (RAL 9005)

Technical data



Core identification code
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Approvals
UL AWM Style 4476 (Construction B)
cUL AWM II A/B (Canada)



Specific insulation resistance
>200 GOhm x cm



Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5
(Refer to Appendix T16 for the matching US conductor sizes in AWG standard)



Minimum bending radius
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage
U_v/U: 300/500 V
Working voltage UL: 600 V



Test voltage
2000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
According to VDE: -50 °C to +180 °C
Normatively acc. to UL Style: up to +150 °C (adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 C MS				
0046701	3 G 0.5	8.6	43.4	100
0046702	4 G 0.5	9.3	55.4	122
0046703	5 G 0.5	10.0	60.2	137
0046708	2 X 1	9.0	48.2	104
0046709	3 G 1	9.5	65.0	131
0046710	4 G 1	10.2	74.6	152
0046711	5 G 1	11.0	91.5	181
0046712	7 G 1	11.9	117.9	228
0046716	2 X 1.5	9.6	65.0	126
0046717	3 G 1.5	10.1	79.4	152
0046718	4 G 1.5	10.9	101.1	186
0046719	5 G 1.5	11.8	122.7	222
0046720	7 G 1.5	12.8	158.7	281
0046721	12 G 1.5	16.9	245.2	431
0046723	18 G 1.5	19.6	346.1	600
0046724	25 G 1.5	23.9	495.7	833
0046728	3 G 2.5	11.0	115.5	197
0046729	4 G 2.5	11.9	146.7	244
0046730	5 G 2.5	12.9	177.9	291
0046734	3 G 4	12.3	165.9	261
0046735	4 G 4	13.4	211.5	325
0046736	5 G 4	14.9	257.2	389
0046740	4 G 6	17.2	302.8	482
0046741	5 G 6	18.7	367.6	580
0046742	4 G 10	22.8	508.4	802

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 MS refer to page 177
- ÖLFLEX® HEAT 180 EWK C refer to page 180

ÖLFLEX®
 UNITRONIC®
 ETHERLINE®
 HITRONIC®
 EPIC®
 SKINTOP®
 SILVYN®
 FLEXIMARK®
 ACCESSORIES
 APPENDIX

ÖLFLEX® HEAT 180 EWKF

Silicone cables with increased mechanical characteristics



Info

- Proven notch-resistant EWKF quality

Benefits

- Longer durability in harsh applications than conventional silicone cables
- Notch and tear-resistant silicone compounds reduce damage due to mechanical stress
- Due to the use of special additives in EWKF silicone, armoured cable versions will not be required
- Flexibility simplifies installation where space is limited
- Possesses insulating properties after combustion due to remaining SiO₂ ash on the conductor

Application range

- Areas with high ambient temperatures and very high mechanical stress
- Typical fields of application
 - Steel, cement, ceramic and iron works
 - Bakery equipment and industrial furnaces
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Galvanisation technology

Product features

- Halogen-free and flame-retardant (IEC 60332.1.2)
- Good hydrolysis and UV-resistance
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances
- **EWKF:** Increased initial tear propagation and notch resistance

Approvals



Design

- Fine-wire, tinned-copper conductor
- Core insulation: based on EWKF silicone
- Cores twisted together
- Outer sheath: silicone-based EWKF, notch-resistant, black (RAL 9005)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
>200 GOhm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
-50 °C to +180 °C
(adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 EWKF				
0046500	2 X 0.75	6.4	15.0	49
0046501	3 G 0.75	6.9	22.0	60
00465023	4 G 0.75	7.6	29.0	76
00465033	5 G 0.75	8.5	36.0	96
0046506	2 X 1	6.8	20.0	56
0046507	3 G 1	7.1	29.0	68
00465083	4 G 1	7.9	39.0	88
00465093	5 G 1	8.8	48.0	110
0046110	7 G 1	9.5	67.2	137
0046511	2 X 1.5	8.0	29.0	77
0046512	3 G 1.5	8.4	43.0	94
00465133	4 G 1.5	9.5	58.0	117
00465143	5 G 1.5	10.4	72.0	143
0046115	7 G 1.5	11.0	101.0	180
0046116	12 G 1.5	14.9	173.0	319
0046117	16 G 1.5	17.1	230.4	424
0046119	24 G 1.5	21.0	345.6	637
0046520	2 X 2.5	9.4	48.0	110
0046521	3 G 2.5	9.8	72.0	146
00465223	4 G 2.5	11.1	96.0	181
00465233	5 G 2.5	12.4	120.0	222
0046131	3 G 4	11.5	114.0	213
00461323	4 G 4	12.5	152.0	267
00461333	5 G 4	13.9	190.0	334
0046141	3 G 6	13.2	174.0	297
00461423	4 G 6	14.7	232.0	381
00461433	5 G 6	16.5	290.0	481

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 H05SS-F EWKF refer to page 176
- ÖLFLEX® HEAT 180 EWKF C refer to page 180

Expanded ambient temperatures

Silicone cables (-50°C to +180°C)

ÖLFLEX® HEAT 180 EWKF C

Screened silicone cables with increased mechanical characteristics



Info

- Proven notch-resistant EWKF quality
- EMC compliant copper screening

Benefits

- Longer durability in harsh applications than conventional silicone cables
- Notch and tear-resistant outer sheath material reduces mechanical damage
- Copper braiding screens the cable against electromagnetic interference
- Flexibility simplifies installation where space is limited
- Due to the use of special additives in EWKF silicone, armoured cable versions will not be required

Application range

- Areas with high ambient temperatures and very high mechanical stress
- Typical fields of application
 - Steel, cement, ceramic and iron works
 - Bakery equipment and industrial furnaces
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Galvanisation technology

Product features

- Halogen-free and flame-retardant (IEC 60332.1.2)
- Good hydrolysis and UV-resistance
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances
- **EWKF:** Increased initial tear propagation and notch resistance

Approvals



Design

- Fine-wire, tinned-copper conductor
- Cores twisted together
- Silicone-based core insulation
- Silicone-based inner sheath
- Tinned-copper screen braiding, interleaved plastic foil wrapping
- Outer sheath: silicone-based EWKF, notch-resistant, black (RAL 9005)

Technical data



Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Specific insulation resistance
>200 GOhm x cm



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



Minimum bending radius
Occasional flexing: 20 x outer diameter
Fixed installation: 6 x outer diameter



Nominal voltage
U₀/U: 300/500 V



Test voltage
2000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
-50 °C to +180 °C
(adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 EWKF C				
0046301	2 X 0.75	8.6	37.5	104
0046302	3 G 0.75	8.9	46.1	118
00463033	4 G 0.75	10.2	57.3	152
00463043	5 G 0.75	10.9	67.3	176
0046307	2 X 1	9.0	43.0	116
0046308	3 G 1	9.7	55.7	142
00463093	4 G 1	10.9	67.8	175
00463103	5 G 1	11.6	80.3	203
0046312	7 G 1	12.3	113.9	250
0046313	2 X 1.5	10.8	58.0	166
0046314	3 G 1.5	11.2	74.0	188
00463153	4 G 1.5	12.0	91.4	222
00463163	5 G 1.5	12.8	121.7	273
0046318	7 G 1.5	13.6	157.2	341
0046320	3 G 2.5	12.8	121.2	271
00463213	4 G 2.5	13.9	150.9	328
00463223	5 G 2.5	14.8	180.5	387
00463273	4 G 4	16.0	218.0	448
00463283	5 G 4	17.2	262.9	531
0046330	3 G 6	16.4	240.5	489
00463313	4 G 6	17.9	304.7	591
00463323	5 G 6	19.4	370.0	706

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 H05SS-F EWKF refer to page 176
- ÖLFLEX® HEAT 180 EWKF refer to page 179

Accessories

- SKINTOP® MS-SC-M refer to page 668
- SKINTOP® MS-SC refer to page 719
- SKINTOP® MS-M BRUSH refer to page 669

ÖLFLEX® HEAT 180 GLS

Steel-armoured silicone cables for increased mechanical stress



Info

- Protected against high thermal and mechanical loads

Benefits

- Close-meshed braid made of galvanised steel wires protects against mechanical damage
- Longer durability in harsh applications than conventional silicone cables
- Possesses insulating properties after combustion due to remaining SiO₂ ash on the conductor

Application range

- Areas with high ambient temperatures and very high mechanical stress
- Typical fields of application
 - Steel and glass works
 - Cement and ceramic works
 - Foundries
 - Shipbuilding industry
 - Furnace construction

Product features

- Halogen-free and flame-retardant (IEC 60332.1.2)
- Only suitable for installation in dry conditions

Approvals



Design

- Fine-wire, tinned-copper conductor
- Silicone-based core insulation
- Cores twisted together
- Silicone-based outer sheath, colour red-brown
- Glass fibre wrapping
- Galvanised steel wire braiding

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
>200 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
- Minimum bending radius**
Occasional flexing: 20 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
-50 °C to +180 °C
(adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 GLS				
0046201	2 X 0.75	7.6	14.4	84
0046202	3 G 0.75	8.0	21.6	96
00462033	4 G 0.75	8.8	28.8	118
00462043	5 G 0.75	9.7	36.0	145
0046205	6 G 0.75	10.4	43.2	167
0046206	7 G 0.75	10.4	50.4	171
0046207	2 X 1	7.8	19.2	92
0046208	3 G 1	8.2	28.8	106
00462093	4 G 1	9.1	38.4	132
00462103	5 G 1	10.0	48.0	161
0046212	7 G 1	10.7	67.0	205
0046213	2 X 1.5	8.8	29.0	119
0046214	3 G 1.5	9.2	43.0	140
00462153	4 G 1.5	10.0	57.6	168
00462163	5 G 1.5	10.8	72.0	212
0046218	7 G 1.5	11.8	101.0	255
0046237	12 G 1.5	15.4	173.0	433
0046219	2 X 2.5	10.0	48.0	162
0046220	3 G 2.5	10.9	72.0	217
00462213	4 G 2.5	12.0	96.0	260
00462223	5 G 2.5	13.0	120.0	310
0046224	7 G 2.5	14.0	168.0	362
0046226	3 G 4	12.9	115.0	300
00462273	4 G 4	14.0	154.0	365
00462283	5 G 4	15.4	192.0	446
00462313	4 G 6	16.1	230.0	500
00462343	4 G 10	20.8	384.0	807
00462353	4 G 16	22.8	614.0	1117

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 260 GLS refer to page 184

Expanded ambient temperatures

FEP cables (-100°C to +205°C)

ÖLFLEX® HEAT 205 MC

Fluorinated ethylene propylene cables for harsh applications



Info

- High chemical resistance
- Wide temperature application range

ÖLFLEX® HEAT 205 PTFE/FEP

4-cored version with PTFE insulation and special core identity code



Info

- EMC compliant copper screening

Benefits

- Space and weight-saving installations due to small cable diameters
- Resistant to contact with mostly all highly aggressive chemical media
- Low outgassing behaviour

Application range

- Conventional cables are not designed for use in environments with very high operating temperatures, heavy usage of chemical agents, or tight spaces
- Typical fields of application
 - Industrial furnace construction
 - Foundries
 - Chemical industry
 - Power plant engineering
 - Paint shop line technology
 - Heating elements
 - Polymer processing
 - Wind turbine engineering

Product features

- ÖLFLEX® HEAT 205 made of FEP
 - Outstanding resistance against acids, solvents, lacquers, petrol, oils and many other chemical media
 - Difficult to inflame
 - High dielectric strength and high abrasion resistance
 - Low water absorption
 - Resistant to microbes
 - Adhesion free insulation materials
 - Weather and ozone resistant
 - Hydrophobic and dirt-repellent
 - High elongation and tear resistance
 - Resistant against synth. hydraulic fluids

Approvals



Design

ÖLFLEX® HEAT 205 MC

- Fine-wire, tinned-copper conductor
- FEP-based core insulation
- Cores twisted together
- FEP-based outer sheath, black

ÖLFLEX® HEAT 205 PTFE/FEP

- Fine-wire, tinned-copper conductor
- PTFE-based core insulation
- Cores twisted together
- Tinned-copper braiding
- Outer sheath: FEP-based, white

Technical data



Core identification code
ÖLFLEX® HEAT 205 MC

Up to 5 cores: colour-coded acc. to VDE 0293-308
From 7 cores: ÖLFLEX® colour-codes, refer to Appendix T7
ÖLFLEX® HEAT 205 PTFE/FEP
Blue, red, grey, black



Conductor stranding

Fine wire according to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²



Minimum bending radius

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



Nominal voltage

U₀/U: 300/500 V



Test voltage

ÖLFLEX® HEAT 205 MC
2500 V
ÖLFLEX® HEAT 205 PTFE/FEP
C/C: 2500 V
C/S: 2000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Fixed installation:
-100°C to +205°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 205 MC				
0091200	2 X 0.25	3.1	5.0	17.2
0091201	3 G 0.25	3.3	7.5	22.2
00912023	4 G 0.25	3.6	10.0	27.5
0091210	2 X 0.5	3.7	9.8	21.6
0091211	3 G 0.5	3.9	14.7	32.8
00912123	4 G 0.5	4.3	19.6	44.4
0091220	2 X 0.75	4.3	14.4	31.5
0091221	3 G 0.75	4.6	21.6	46.1
00912223	4 G 0.75	5.1	29.0	57.9
0091230	2 X 1	4.7	19.0	41.6
0091231	3 G 1	5.0	29.0	55.6

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
00912323	4 G 1	5.5	38.0	70
0091100	3 G 1.5	5.8	43.0	70
00911033	4 G 1.5	6.3	58.0	98
00911013	5 G 1.5	7.0	72.0	117
0091102	7 G 1.5	7.6	101.0	184
0091236	3 G 2.5	6.9	72.0	86
00912353	4 G 2.5	7.6	96.0	115
00912373	5 G 2.5	8.4	120.0	144
00912423	4 G 4	9.3	154.0	180
00912433	5 G 4	10.3	192.0	225
ÖLFLEX® HEAT 205 PTFE/FEP				
30016373	4 X 0.75	5.9	49.0	78

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

ÖLFLEX® HEAT 205 MC

- ÖLFLEX® HEAT 260 MC refer to page 183

ÖLFLEX® HEAT 260 MC

Polytetrafluoroethylene cables for most extreme loads



Info

- Excellent chemical, thermal and electrical performance



Info

- EMC compliant copper screening

ÖLFLEX® HEAT 260 C MC

Copper-screened polytetrafluoroethylene cables for most extreme loads



Benefits

- Space and weight-saving installations due to small cable diameters
- Stress crack resistant to frequent ambient temperature fluctuations
- Resistant to contact with mostly all highly aggressive chemical media
- Low outgassing behaviour
- Copper braiding of screened version complies with EMC requirements and protects against electromagnetic interference

Application range

- Conventional cables are not designed for use in environments with very high operating temperatures, heavy usage of chemical agents, or tight spaces
- ÖLFLEX® HEAT 260 has proven to be an effective solution in harsh environments such as paint shop lines
- Typical fields of application
 - Industrial furnace construction
 - Foundries
 - Chemical industry
 - Power plant engineering
 - Paint shop line technology
 - Heating elements
 - Polymer processing
 - Wind turbine engineering

Product features

- ÖLFLEX® HEAT 260 made of PTFE
 - Outstanding resistance against acids, alkalis, solvents, lacquers, petrol, oils and many other chemical media
 - Difficult to inflame
 - High dielectric strength and high abrasion resistance
 - Low water absorption
 - Resistant to microbes
 - Adhesion-free insulation materials
 - Weather and ozone resistant
 - Hydrophobic and dirt-repellent
 - High elongation and tear resistance
 - Resists contact with liquid nitrogen
 - Resistant against synthetic hydraulic fluids

Approvals



Design

ÖLFLEX® HEAT 260 MC

- Fine-wire strand made of nickel-plated copper
- PTFE-based core insulation
- Cores twisted together
- PTFE-based outer sheath, black

ÖLFLEX® HEAT 260 C MC

- Fine-wire strand made of nickel-plated copper
- PTFE-based core insulation
- Cores twisted together
- Special wrapping
- Nickel-plated copper braiding
- PTFE-based outer sheath, black

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Specific insulation resistance**
> 1 TΩm x cm
- 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**
U₀/U: 300/500 V
- Test voltage**
ÖLFLEX® HEAT 260 MC
2500 V
ÖLFLEX® HEAT 260 C MC
C/C: 2500 V
C/S: 2000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Fixed installation:
-190°C to +260°C
Short-term: up to +300°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 260 MC - unscreened				
0091300	2 X 0.5	3.9	9.6	22
0091301	3 G 0.5	4.1	14.4	33
0091302	4 G 0.5	4.5	19.2	45
0091305	2 X 0.75	4.2	14.4	32
0091306	3 G 0.75	4.4	21.6	47
0091307	4 G 0.75	5.1	28.8	58
0091310	2 X 1	4.8	19.2	42
0091311	3 G 1	5.1	28.8	56
0091312	4 G 1	5.8	38.4	71
0091315	3 G 1.5	5.6	43.2	72
0091316	4 G 1.5	6.1	57.6	98
0091317	5 G 1.5	7.0	72.0	118
0091320	3 G 2.5	7.1	72.0	87

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0091321	4 G 2.5	7.7	96.0	116
0091322	5 G 2.5	8.5	120.0	145
ÖLFLEX® HEAT 260 C MC - screened				
0091330	3 G 0.75	5.5	46.0	75
0091331	4 G 0.75	5.9	51.0	87
0091332	3 G 1	5.8	48.0	81
0091333	4 G 1	6.4	65.0	104
0091334	3 G 1.5	6.3	65.0	101
0091335	4 G 1.5	7.2	86.0	134
0091336	5 G 1.5	7.8	105.0	162
0091337	3 G 2.5	7.9	114.0	160
0091338	4 G 2.5	8.7	140.0	204
0091339	5 G 2.5	9.4	209.0	270

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

ÖLFLEX® HEAT 260 MC

- ÖLFLEX® HEAT 205 MC refer to page 182

Expanded ambient temperatures

PTFE cables (-190°C to +260°C)

ÖLFLEX® HEAT 260 GLS

Steel-armoured PTFE cables for increased mechanical stress



Info

- Good thermal and mechanical performance
- Robust cable design
- GL - Germanischer Lloyd approved

Benefits

- Close-meshed braid made of galvanised steel wires protects against mechanical damage
- Small outer diameters for maximum saving of space and weight
- Germanischer Lloyd approval for use with ship diesel engines

Application range

- Extremely high temperatures and mechanical stress require special insulated and armoured cables
- Main applications
 - Ship-building
 - Signal systems
 - Monitoring devices
 - Diesel engines
 - Steam boiler units
 - Turbine manufacturing

Product features

- Flame-retardant
- Stress crack resistant to frequent ambient temperature fluctuations
- High dielectric strength and high abrasion resistance
- High elongation resistance and tear strength
- Only suitable for installation in dry conditions

Approvals



Design

- Fine-wire strand made of nickel-plated copper
- PTFE-based core insulation
- Cores twisted together
- Impregnated glass fibre braiding
- Galvanised steel wire braiding

Technical data



Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
7-core version:
gn/ye, bl, bn, bk, bk, bk, tr



Approvals
GL (Germanischer Lloyd)



Specific insulation resistance
> 1 TOhm x cm



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



Minimum bending radius
In fixed installations:
5 x cable diameter



Nominal voltage
U₀/U 300/500 V
according to GL: 250 V



Test voltage
1500 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Fixed installation: -190°C to +260°C
According to GL: +205 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 260 GLS				
0091120	2 X 1.5	5.7	29.0	93
0091121	3 G 1.5	6.1	43.0	102
00911223	4 G 1.5	6.6	58.0	130
00911233	5 G 1.5	7.3	72.0	149
0091124	7 G 1.5	8.0	101.0	180

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 GLS refer to page 181

ÖLFLEX® HEAT 350 MC

Suitable for use in ambient temperature from -50 °C to +350 °C



Info

- Voltage rating: 230/400 V
- For use in dry conditions

Benefits

- Low conductor-resistance due to the nickel-plated copper conductors

Application range

- Wide operating temperature range allows the product to be used in applications under Thermal Class C.
- Blast furnaces and glassworks
- Chemical and power station construction
- Motor and furnace construction
- Lighting, apparatus and instrument industry

Product features

- Flame-retardant according to IEC 60332.1.2
- Only suitable for installation in dry conditions
- ÖLFLEX® HEAT 1565 is recommended if the peak temperature of the application may briefly go beyond 350 °C

Approvals



Design

- Fine-wire strand made of nickel-plated copper
- Core insulation: glass fibre covering and impregnated glass fibre braids
- Cores twisted together
- Outer sheath: impregnated glass fibre braiding, white (natural)

Technical data

- Core identification code**
Colours according to VDE 0293-308, refer to Appendix T9
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Fixed installation: 6 x outer diameter
- Nominal voltage**
U₀/U 230/400 V
- Test voltage**
1500 V
- Temperature range**
Fixed installation:
-50 °C to +350 °C
(adequate ventilation required)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 350 MC				
0091375	2 X 1	6.8	19.2	56
0091376	3 G 1	7.4	28.8	70
0091377	4 G 1	8.2	38.4	88
0091380	2 X 1.5	7.8	28.8	77
0091381	3 G 1.5	8.4	43.2	93
0091382	4 G 1.5	9.4	57.6	118
0091383	5 G 1.5	10.3	72.0	140
0091390	3 G 2.5	8.9	72.0	124
0091391	4 G 2.5	9.8	96.0	160
0091392	5 G 2.5	10.1	120.0	194

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

Copper price basis: EUR 150/100kg. Refer to 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, otherwise drum

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

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

Similar products

- ÖLFLEX® HEAT 1565 MC refer to page 186

Expanded ambient temperatures

Glass fibre cables (above +260°C)

ÖLFLEX® HEAT 1565 MC

Suitable for use in ambient temperatures between -195°C to +400°C



Info

- Short-term: up to +1565 °C
- For use in dry conditions

■ Benefits

- Low conductor-resistance due to the nickel-plated copper conductors
- Able to withstand temporary contact with molten metal or glass

■ Application range

- Guarantees the circuit even in areas with extremely high ambient temperatures
- Blast furnaces and coking plants
- Refineries
- Glassworks
- Aluminium and steelworks

■ Product features

- Flame-retardant
- Only suitable for installation in dry conditions

■ Approvals



■ Design

- Fine-wire strand made of nickel-plated copper
- MICA tape wrapping and impregnated glass fibre braiding
- Cores twisted together
- Outer sheath: MICA tape-wrapping, impregnated glass fibre braiding, red

■ Technical data



Core identification code
 2-core cable:
 blue, brown
 4-core cable:
 black, blue, yellow, brown



Conductor stranding
 Fine copper wire strands



Minimum bending radius
 Fixed installation:
 5 x cable diameter



Nominal voltage
 U₀/U: 300/500 V



Test voltage
 2200 V



Temperature range
 -195 °C to +400 °C
 (adequate ventilation required)
 Short-term: up to +1565 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 1565 MC				
30020808	2 x 0.5	7.0	9.6	48
30020809	2 x 0.75	7.4	14.4	66
30016609	2 x 1	7.7	19.2	74
30016603	2 x 1.5	8.2	28.8	87
30020810	2 x 2.5	9.7	48.0	114
30020811	2 x 4	11.2	76.8	161
30016606	4 x 1	8.9	38.4	123
30016600	4 x 1.5	9.5	57.6	148

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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, otherwise drum
 Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
 Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® HEAT 145 SC

Electron beam cross-linked single cores for more demanding application requirements



Info

- Improved characteristics in the event of a fire
- Voltage class from 1.5 mm² 450/750 V
- Please note: Discontinued product!

Benefits

- For safety in areas with high density of people
- Reduction of flame propagation and density and toxicity of smoke gases in event of fire
- Minimises damage to buildings and equipment caused by the formation of toxic acid fumes in fires
- Certified for maritime applications

Application range

- For the wiring and connection of lighting, heating appliances, control cabinets, and distributors in mechanical and plant engineering

Product features

- Halogen-free according to IEC 60754-1
- Flame-retardant according to IEC 60332-1-2
- No flame propagation according to IEC 60332-3-24 or IEC 60332-3-25
- Abrasion and notch-resistant

Approvals



Design

- Fine-wire, tinned-copper conductor
- Electron beam cross-linked polyolefin copolymer insulation

Technical data

- Core identification code**
refer to article table
- Approvals**
GL (Germanischer Lloyd)
- Conductor stranding**
Fine wire according to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²
- Minimum bending radius**
Fixed installation: 4 x outer diameter
- Nominal voltage**
Up to 1.0mm² U₀/U 300/500 V
From 1.5mm² U₀/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation
- Test voltage**
3500 V
- Temperature range**
Fixed installation:
-55 °C to +125 °C
Short-term: up to +145 °C

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/yellow	black	blue	dark/blue	brown	yellow
0.25	1.6	2.4	5.0		0181001	0181002			0181005
0.5	1.9	4.8	8.0	0182000	0182001	0182002		0182003	0182005
0.75	2.2	7.2	11.0	0183000	0183001	0183002	0183114	0183003	0183005
1	2.4	9.6	14.0	0184000	0184001	0184002	0184114	0184003	0184005
1.5	3.0	14.4	21.0	0185000	0185001	0185002	0185114	0185003	0185005
2.5	3.7	24.0	33.0	0186000	0186001	0186002	0186114	0186003	0186005
4	4.2	38.4	49.0	0187000	0187001	0187002		0187003	0187005
6	4.7	57.6	67.0	0188000	0188001	0188002	0188114	0188003	0188005
10	6.1	96.0	112.0	0189000	0189001	0189002	0189114		
16	7.5	154.0	172.0	0190000	0190001	0190002			
25	9.0	240.0	262.0	0191000	0191001				
35	10.1	336.0	362.0	0192000	0192001				
50	12.7	480.0	512.0	0193000	0193001				
70	14.7	672.0	710.0	0194000	0194001				
95	16.4	912.0	937.0		0195001				
120	18.2	1,152.0	1,159.0		0196001				
150	20.9	1,440.0	1,447.0	0197000	0197001				
185	22.9	1,776.0	1,790.0		0198001				
240	25.8	2,304.0	2,318.0		0199001				

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green	violet	orange	red	white	grey
0.25	1.6	2.4	5.0	0181006			0181104	0181105	0181106
0.5	1.9	4.8	8.0	0182006	0182007	0182009	0182104	0182105	0182106
0.75	2.2	7.2	11.0	0183006	0183007	0183009	0183104	0183105	0183106
1	2.4	9.6	14.0	0184006			0184104	0184105	0184106
1.5	3.0	14.4	21.0	0185006	0185007	0185009	0185104	0185105	0185106
2.5	3.7	24.0	33.0	0186006	0186007	0186009	0186104	0186105	0186106
4	4.2	38.4	49.0	0187006		0187009	0187104	0187105	
6	4.7	57.6	67.0				0188104	0188105	
10	6.1	96.0	112.0				0189104		

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.
 Cross-section 0.25 mm² only available as 300 m box / Cross-section 0.5 mm² only available as 200 m box / Cross-section 1.0 - 4 mm² only available as 100 m box
 Article number index of core colours: 000 = green-yellow / 001 = black / 002 = blue / 114 = dark blue / 003 = brown / 005 = yellow / 006 = green / 007 = violet / 009 = orange / 104 = red / 105 = white / 106 = grey

Similar products

- ÖLFLEX® TRAFFIC 3GKW refer to page 140
- X05Z-K 110°C refer to page 210
- X07Z-K 110°C refer to page 211

Expanded ambient temperatures

Silicone single cores (-50°C to +180°C)

ÖLFLEX® HEAT 180 SiF

Versatile stranded conductors with extended temperature range



Info

- Flexible fine-wire copper conductor

Application range

- Areas with high ambient temperatures where conventional core insulation materials will embrittle after a short while
- Typical fields of application
 - Control cabinet manufacturing
 - Appliances and apparatus engineering
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Furnace construction
 - Polymer processing
 - Generator and transformer manufacturing

Product features

- Halogen-free according to IEC 60754-1
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances

Approvals



Design

- Fine-wire, tinned-copper conductor
- Silicone-based insulation

Technical data

- Specific insulation resistance**
>200 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/ IEC 60228 class 5 from 0.5 mm²
- Minimum bending radius**
Fixed installation: 6 x core diameter
One bend at end of core:
3 x cable diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Temperature range**
-50 °C to +180 °C
(adequate ventilation required)
Short-term: +200 °C

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/yellow	black	blue	brown	beige	yellow	green
0.25	1.9	2.4	5.4	0047000	0047001	0047002	0047003		0047005	0047006
0.5	2.1	4.8	9.0	0048000	0048001	0048002	0048003		0048005	0048006
0.75	2.4	7.2	12.0	0049000	0049001	0049002	0049003		0049005	0049006
1	2.5	9.6	15.0	0050000	0050001	0050002	0050003	0050004	0050005	0050006
1.5	2.8	14.4	20.0	0051000	0051001	0051002	0051003		0051005	0051006
2.5	3.4	24.0	32.0	0052000	0052001	0052002	0052003		0052005	0052006
4	4.2	38.0	50.0	0053000	0053001	0053002	0053003		0053005	0053006
6	5.0	58.0	73.0	0054000	0054001	0054002	0054003	0054004	0054005	0054006
10	6.6	96.0	118.0	0055000	0055001	0055002	0055003			
16	7.4	154.0	177.0	0056000	0056001	0056002				
25	9.2	240.0	277.0	0057000	0057001	0057002				
35	10.3	336.0	374.0	0058000	0058001	0058002				
50	12.2	480.0	530.0	0059000	0059001					
70	14.2	672.0	724.0	0060000	0060001	0060002				
95	16.6	912.0	982.0	0061000	0061001					
120	18.0	1,152.0	1,219.0	0062000	0062001					
150	20.0	1,440.0	1,524.0		0063001					
185	22.5	1,776.0	1,915.0		0064001					

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	violet	pink	orange	red	white	grey
0.25	1.9	2.4	5.4	0047007	0047008	0047009	0047104	0047105	0047106
0.5	2.1	4.8	9.0	0048007	0048008	0048009	0048104	0048105	0048106
0.75	2.4	7.2	12.0	0049007	0049008	0049009	0049104	0049105	0049106
1	2.5	9.6	15.0	0050007	0050008	0050009	0050104	0050105	0050106
1.5	2.8	14.4	20.0	0051007	0051008	0051009	0051104	0051105	0051106
2.5	3.4	24.0	32.0	0052007			0052104	0052105	0052106
4	4.2	38.0	50.0			0053009	0053104	0053105	0053106
6	5.0	58.0	73.0				0054104	0054105	0054106
10	6.6	96.0	118.0			0055009	0055104		0055106
16	7.4	154.0	177.0				0056104		0056106
25	9.2	240.0	277.0				0057104		0057106
35	10.3	336.0	374.0				0058104		
50	12.2	480.0	530.0				0059104		
95	16.6	912.0	982.0					0061105	

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

Copper price basis: EUR 150/100kg. Refer to 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).

Also available on large spools and non-returnable drums.

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

Article number index of core colours: 000 = green-yellow; 001 = black; 002 = blue; 003 = brown; 004 = beige; 005 = yellow; 006 = green; 007 = violet; 008 = pink; 009 = orange; 104 = red; 105 = white; 106 = grey

Other colours are available upon request

ÖLFLEX®

UNITRONIC®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

SILVYN®

FLEXIMARK®

ACCESSORIES

APPENDIX

ÖLFLEX® HEAT 180 SiD

Versatile solid conductors with extended temperature range



Info

- Solid single copper conductor

Application range

- Areas with high ambient temperatures where conventional core insulation materials will embrittle after a short while
- Typical fields of application
 - Control cabinet manufacturing
 - Appliances and apparatus engineering
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Furnace construction
 - Polymer processing
 - Generator and transformer manufacturing

Product features

- Halogen-free according to IEC 60754-1
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances

Approvals



Design

- Tinned solid copper wire
- Silicone-based insulation

Technical data

- Specific insulation resistance**
>200 GOhm x cm
- Conductor stranding**
Solid single copper conductor
- Minimum bending radius**
Fixed installation: 6 x core diameter
One bend at end of core:
3 x cable diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Temperature range**
-50 °C to +180 °C
(adequate ventilation required)
Short-term: +200°C

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/yellow	black	blue	brown	beige
0.5	2.0	4.8	9.0		0068001			
0.75	2.2	7.2	12.0	0069000	0069001	0069002	0069003	
1	2.3	9.6	15.0	0070000	0070001	0070002	0070003	
1.5	2.6	14.4	20.0	0071000	0071001	0071002	0071003	0071004
2.5	3.2	24.0	32.0		0072001	0072002		
4	3.9	38.0	50.0		0073001			
6	4.6	58.0	64.5		0074001	0074002		

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green	violet	red	white
0.5	2.0	4.8	9.0				0068105
0.75	2.2	7.2	12.0	0069006	0069007	0069104	0069105
1	2.3	9.6	15.0		0070007	0070104	0070105
1.5	2.6	14.4	20.0				0071105

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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).
 Also available on large spools and non-returnable drums.
 Photographs are not to scale and do not represent detailed images of the respective products.
 Article number index of core colours: 000 = green-yellow; 001 = black; 002 = blue; 003 = brown; 004 = beige; 006 = green; 007 = violet; 104 = red; 105 = white
 Other colours are available upon request

Expanded ambient temperatures

Silicone single cores (-50 °C to +180 °C)

ÖLFLEX® HEAT 180 SiF/GL



Info

- With glass fibre protection braiding

ÖLFLEX® HEAT 180 SiZ



Info

- Separable twin conductor

ÖLFLEX® HEAT 180 FZLSi



Info

- 10 kV high-voltage ignition wire

Application range

- Areas with high ambient temperatures where conventional core insulation materials will embrittle after a short while
- Typical fields of application
 - Control cabinet manufacturing
 - Appliances and apparatus engineering
 - Electric motor industry
 - Sauna/solarium construction
 - Thermal and heating elements
 - Lighting technology
 - Ventilator engineering
 - Air-conditioning technology
 - Furnace construction
 - Polymer processing
 - Generator and transformer manufacturing

Product features

- Halogen-free according to IEC 60754-1
- Resistant to oils, alcohols, vegetable and animal fats, and chemical substances

Approvals



ÖLFLEX® HEAT 180 FZLSi

- Increased voltage rating is not subject to the Low Voltage Directive 2006/95/EC

Design

ÖLFLEX® HEAT 180 SiF/GL

- Fine-wire, tinned-copper conductor
- Silicone-based insulation
- Impregnated glass fibre braiding

ÖLFLEX® HEAT 180 SiZ

- Fine-wire, tinned-copper conductor
- Silicone-based insulation
- Cores connected in parallel with a separating strip

ÖLFLEX® HEAT 180 FZLSi

- Fine-wire, tinned-copper conductor
- Silicone-based insulation

Technical data



Conductor stranding

Fine wire according to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²



Minimum bending radius

Fixed installation: 6 x core diameter
One bend at end of core:
3 x cable diameter



Nominal voltage

Version SiF/GL / SiZ:
U_n/U 300/500 V
Version FZLSi:
10 kV



Test voltage

Version SiF/GL / SiZ:
2000 V
Version FZLSi:
20 kV



Temperature range

-50 °C to +180 °C
(adequate ventilation required)
Short-term: +200 °C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 SiF/GL hook-up wire with glass fibre braiding				
0065102	0.5	2.5	4.8	11.0
0065103	0.75	2.8	7.2	14.0
0065104	1	2.9	9.6	17.0
0065105	1.5	3.2	14.4	23.0
0065106	2.5	3.8	24.0	36.0
0065107	4	4.6	38.0	54.0
0065108	6	5.4	58.0	80.0
0065109	10	7.6	96.0	133.0
0065110	16	8.4	154.0	198.0
0065111	25	10.2	240.0	301.0
0065112	35	11.3	336.0	401.0
0065113	50	13.4	480.0	567.0
ÖLFLEX® HEAT 180 SiZ twin conductor				
0065201	2 x 0.5	2.1 x 4.2	9.6	17.0
0065202	2 x 0.75	2.3 x 4.6	14.4	24.0
ÖLFLEX® HEAT 180 FZLSi high-voltage ignition wire				
2510001	1 (32 x 0,2)	7.0	9.6	68.0
2510005	1,5 (30 x 0,25)	7.6	14.4	83.0

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Colour of core insulation: ÖLFLEX® HEAT 180 SiF/GL = white; with natural glass fibre braiding / ÖLFLEX® HEAT 180 SiZ = red; ÖLFLEX® HEAT 180 FZLSi = red

ÖLFLEX® HEAT 205 SC

For very high and low temperature requirements



Info

- Thermal and chemical resistance
- Space and weight-saving
- FEP = fluorinated ethylene propylene

Benefits

- Small outer diameters for maximum saving of space and weight
- Resistant to contact with mostly all highly aggressive chemical media
- Low outgassing behaviour

Application range

- Conventional cables are not designed for use in environments with very high operating temperatures, heavy usage of chemical agents, or tight spaces
- Typical fields of application
 - Control cabinets with high heat generation
 - Measuring instruments
 - Furnaces and brickworks
 - Heating equipment and kitchen appliances
 - Electric motor building
 - Installations in the chemical industry

Product features

- ÖLFLEX® HEAT 205 made of FEP
 - Outstanding resistance against acids, solvents, lacquers, petrol, oils and many other chemical media
 - Difficult to inflame
 - High dielectric strength and high abrasion resistance
 - Low water absorption
 - Resistant to microbes
 - Adhesion free insulation materials
 - Weather and ozone resistant
 - Hydrophobic and dirt-repellent
 - High elongation and tear resistance
 - Resistant against synth. hydraulic fluids

Approvals



Design

- Fine-wire, tinned-copper conductor
- FEP core insulation

Technical data

- Specific insulation resistance**
>2 TOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295, class 5/ IEC 60228 class 5 from 0.5 mm²
- Minimum bending radius**
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2500 V
- Temperature range**
Fixed installation: -100°C to +205°C

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/yellow	black	blue	brown	yellow	green	violet
0.14	1.0	1.3	2.6		0080001	0080002		0080005	0080006	
0.25	1.1	2.4	4		0081001	0081002	0081003	0081005	0081006	
0.5	1.4	4.8	6.8	0082000	0082001	0082002	0082003	0082005	0082006	0082007
0.75	1.7	7.2	10.1	0083000	0083001	0083002	0083003	0083005	0083006	
1	1.9	9.6	12.8	0084000	0084001	0084002	0084003	0084005	0084006	0084007
1.5	2.2	14.4	18	0085000	0085001	0085002	0085003	0085005		
2.5	2.7	24.0	29.5	0086000	0086001	0086002	0086003			0086007
4	3.3	38.0	45	0087000	0087001	0087002	0087003	0087005		
6	4.1	58.0	68	0088000	0088001	0088002	0088003			
10	5.4	96.0	116	0089000	0089001	0089002	0089003			
16	6.7	154.0	175	0090000	0090001	0090002				

Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	pink	orange	transparent	red	white	grey
0.14	1.0	1.3	2.6			0080010	0080104	0080105	
0.25	1.1	2.4	4		0081009	0081010	0081104	0081105	0081106
0.5	1.4	4.8	6.8		0082009	0082010	0082104	0082105	0082106
0.75	1.7	7.2	10.1	0083008		0083010	0083104	0083105	
1	1.9	9.6	12.8			0084010	0084104	0084105	0084106
1.5	2.2	14.4	18			0085010	0085104	0085105	
2.5	2.7	24.0	29.5			0086010	0086104	0086105	0086106
4	3.3	38.0	45			0087010	0087104	0087105	
6	4.1	58.0	68			0088010	0088104		
10	5.4	96.0	116			0089010	0089104	0089105	0089106
16	6.7	154.0	175				0090104		

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

Copper price basis: EUR 150/100kg. Refer to 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 100m

Available as original coil goods only

Also available on large spools and non-returnable drums.

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

Article number index of core colours: 000 = green-yellow; 001 = black; 002 = blue; 003 = brown; 005 = yellow; 006 = green; 007 = violet; 008 = pink; 009 = orange; 010 = transparent; 104 = red; 105 = white; 106 = grey

Other colours are available upon request

Similar products

- ÖLFLEX® HEAT 260 SC refer to page 192

Expanded ambient temperatures

PTFE single cores (-190°C to +260°C)

ÖLFLEX® HEAT 260 SC

For use in the most extreme conditions



Info

- Excellent chemical, thermal and electrical performance
- Space and weight-saving
- PTFE= Polytetrafluoroethylene

Benefits

- Small outer diameters for maximum saving of space and weight
- Resistant to contact with mostly all highly aggressive chemical media
- Stress crack resistant to frequent ambient temperature fluctuations
- Low outgassing behaviour

Application range

- Conventional cables are not designed for use in environments with very high operating temperatures, heavy usage of chemical agents, or tight spaces
- Typical fields of application
 - Control cabinets with high heat generation
 - Measuring instruments
 - Furnaces and brickworks
 - Heating equipment and kitchen appliances
 - Electric motor building
 - Installations in the chemical industry

Product features

- ÖLFLEX® HEAT 260 made of PTFE
 - Outstanding resistance against acids, alkalis, solvents, lacquers, petrol, oils and many other chemical media
 - Difficult to inflame
 - High dielectric strength and high abrasion resistance
 - Low water absorption
 - Resistant to microbes
 - Adhesion-free insulation materials
 - Weather and ozone resistant
 - Hydrophobic and dirt-repellent
 - High elongation and tear resistance
 - Resists contact with liquid nitrogen
 - Resistant against synthetic hydraulic fluids

Approvals



Design

- Silver-plated AWG copper conductor
- PTFE core insulation

Technical data

- Specific insulation resistance**
> 1 TOhm x cm
- Conductor stranding**
AWG conductor sizes, 7, 19 or 37 wires
- Minimum bending radius**
Fixed installation:
4 x outer diameter
- Nominal voltage**
U_c/U: 300/500 V
- Test voltage**
3400 V
- Temperature range**
Fixed installation: -190°C to +260°C

AWG No. and wire number	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/yellow	black	blue	brown	yellow	green	violet
28 (7)	0.8	0.9	2	0094000	0094001	0094002	0094003	0094005	0094006	0094007
26 (7)	0.9	1.4	2.7		0095001	0095002		0095005	0095006	0095007
26 (19)	0.9	1.5	2.9	0096000	0096001				0096006	
24 (7)	1.1	2.2	3.8		0097001	0097002	0097003			
24 (19)	1.1	2.3	4	0098000	0098001	0098002	0098003		0098006	
22 (7)	1.2	3.4	5.4		0099001	0099002	0099003		0099006	0099007
22 (19)	1.2	3.7	5.7		0100001	0100002	0100003	0100005		
20 (7)	1.4	5.4	7.7		0101001	0101002	0101003		0101006	
20 (19)	1.4	5.9	8.2		0102001	0102002	0102003	0102005	0102006	0102007
18 (7)	1.7	8.6	12		0103001					
18 (19)	1.7	9.3	12	0104000	0104001	0104002	0104003	0104005	0104006	0104007
16 (19)	2.0	11.8	16	0105000	0105001	0105002	0105003	0105005	0105006	0105007
14 (19)	2.4	18.7	23	0106000	0106001	0106002	0106003	0106005	0106006	
12 (19)	2.8	29.6	35	0107000	0107001	0107002	0107003	0107005	0107006	
10 (37)	3.4	45.6	51	0108000	0108001	0108002				

AWG No. and wire number	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	pink	orange	transparent	red	white	grey
28 (7)	0.8	0.9	2	0094008	0094009	0094010	0094104	0094105	0094106
26 (7)	0.9	1.4	2.7		0095009		0095104	0095105	0095106
26 (19)	0.9	1.5	2.9				0096104		
24 (7)	1.1	2.2	3.8				0097104	0097105	
24 (19)	1.1	2.3	4				0098104	0098105	0098106
22 (7)	1.2	3.4	5.4				0099104	0099105	
22 (19)	1.2	3.7	5.7		0100009		0100104	0100105	
20 (7)	1.4	5.4	7.7				0101104	0101105	
20 (19)	1.4	5.9	8.2		0102009		0102104	0102105	0102106
18 (19)	1.7	9.3	12		0104009	0104010	0104104	0104105	
16 (19)	2.0	11.8	16	0105008	0105009		0105104	0105105	
14 (19)	2.4	18.7	23				0106104	0106105	0106106
12 (19)	2.8	29.6	35					0107105	
10 (37)	3.4	45.6	51				0108104	0108105	

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

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

Packaging size: Coil 100m

Available as original coil goods only

Also available on large spools and non-returnable drums.

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

Article number index of core colours: 000 = green-yellow; 001 = black; 002 = blue; 003 = brown; 005 = yellow; 006 = green; 007 = violet; 008 = pink; 009 = orange; 010 = transparent; 104 = red; 105 = white; 106 = grey

Other colours are available upon request

Similar products

- ÖLFLEX® HEAT 205 SC refer to page 191

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SILVYN® SKINTOP® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® HEAT 350 SC

Suitable for use in ambient temperature from -50 °C to +350 °C



Info

- Voltage rating: 230/400 V
- For use in dry conditions

Benefits

- Low conductor-resistance due to the nickel-plated copper conductors

Application range

- Wide operating temperature range allows the product to be used in applications under Thermal Class C.
- Blast furnaces and glassworks
- Chemical and power station construction
- Motor and furnace construction
- Lighting, apparatus and instrument industry

Product features

- Flame-retardant according to IEC 60332.1.2
- Only suitable for installation in dry conditions
- ÖLFLEX® HEAT 1565 is recommended if the peak temperature of the application may briefly go beyond 350 °C

Approvals



Design

- Fine-wire strand made of nickel-plated copper
- Core insulation: glass fibre covering (additional mica wrapping from 16 mm²) and impregnated glass fibre braid, core colour = white (natural)

Technical data

- Core identification code**
Natural colour
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
- Minimum bending radius**
Fixed installation:
5 x cable diameter
- Nominal voltage**
U₀/U 230/400 V
- Test voltage**
1500 V
- Temperature range**
Fixed installation:
-50 °C to +350 °C
(adequate ventilation required)

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 350 SC				
0091350	0.5	2.5	4.8	13.0
0091351	0.75	3.0	7.2	15.0
0091352	1	3.4	9.6	17.0
0091353	1.5	3.5	14.4	23.0
0091354	2.5	3.7	24.0	34.0
0091355	4	4.2	38.4	54.0
0091356	6	6.2	57.6	84.0
0091357	10	8.0	96.0	120.0
0091358	16	7.3	153.6	199.0
0091359	25	9.5	240.0	300.0
0091360	35	10.9	336.0	399.0
0091361	50	13.2	480.0	540.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 1565 SC refer to page 194

Expanded ambient temperatures

Glass fibre single cores (above +260°C)

ÖLFLEX® HEAT 1565 SC

Suitable for use in ambient temperatures between -195°C to +400°C



Info

- Short-term: up to +1565 °C
- For use in dry conditions

■ Benefits

- Low conductor-resistance due to the nickel-plated copper conductors
- Able to withstand temporary contact with molten metal or glass

■ Application range

- Guarantees the circuit even in areas with extremely high ambient temperatures
- Blast furnaces and coking plants
- Refineries
- Glassworks
- Aluminium and steelworks

■ Product features

- Flame-retardant
- Only suitable for installation in dry conditions

■ Approvals



■ Design

- Fine-wire strand made of nickel-plated copper
- Mica tape wrapping
- Impregnated glass fibre braiding, red

■ Technical data



Core identification code
red



Conductor stranding
Fine copper wire strands



Minimum bending radius
Fixed installation:
5 x cable diameter



Nominal voltage
U₀/U: 300/500 V



Test voltage
2200 V



Temperature range
-195 °C to +400 °C
(adequate ventilation required)
Short-term: up to +1565 °C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT SC 1565				
3020780	0.75	2.9	7.2	15.9
3020781	1	3.0	9.6	18.8
3013234	1.5	3.3	14.4	24.3
3020782	2.5	3.8	24.0	35.0
3018942	4	4.8	38.4	56.0
3020783	6	5.6	57.6	86.4
3016697	10	6.2	96.0	123.0
3016698	16	7.9	153.6	202.5
3016699	25	9.2	240.0	295.1
3016771	35	10.6	336.0	403.9
3017861	50	12.2	480.0	545.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

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Technical data

- Peak operating voltage**
500 V (0.14 mm²)
900 V (0.25 sq.mm)
- Based on**
VDE 0812
- Conductor stranding**
0.14 mm²: ≥ 18 strands (each with 0.10 mm Ø)
0.25 mm²: ≥ 14 strands (each with 0.15 mm Ø)
- Nominal voltage**
Operating voltage < 50 VAC
UPP - peak-to-peak voltage: ≤ 250 V
- Test voltage**
1200 V (0.14 mm²)
2500 V (0.25 mm²)
- Temperature range**
Fixed installation: -30°C to +70°C

Application range

- Stranded hook-up wires for wiring of telecommunication devices and electronic components within devices

Product features

- Flame-retardant according to IEC 60332.1.2
- Spool: d1 = 18 mm; d2 = 150 mm; b = 85 mm

Design

- Stranded copper wire
- Core insulation: PVC-based YI 2/TI 2 acc. VDE 0207-4



Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Green/yellow	black	blue	Dark blue	brown
0.14	1.1	500	1.3	4125000S	4125001S	4125002S	4125014S	4125003S
0.25	1.3	250	2.4	4126000S	4126001S	4126002S	4126014S	4126003S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	beige	yellow	green	violet	Pink
0.14	1.1	500	1.3	4125009S	4125005S	4125006S	4125007S	4125008S
0.25	1.3	250	2.4	4126004S	4126005S	4126006S	4126007S	4126008S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	orange	Transparent	red	white	grey
0.14	1.1	500	1.3	4125009S	4125009S	4125104S	4125105S	4125106S
0.25	1.3	250	2.4	4126009S	4126010S	4126104S	4126105S	4126106S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

LiY with twin colour helix insulation



Technical data

- Peak operating voltage**
900 V (0.25 sq.mm)
- Based on**
VDE 0812
- Conductor stranding**
0.25 mm²: ≥ 14 strands (each with 0.15 mm Ø)
- Nominal voltage**
Operating voltage < 50 VAC
UPP - peak-to-peak voltage: ≤ 250 V
- Test voltage**
2500 V (0.25 mm²)
- Temperature range**
Fixed installation: -30°C to +70°C

Application range

- Stranded hook-up wires for wiring of telecommunication devices and electronic components within devices

Product features

- Flame-retardant according to IEC 60332.1.2
- Spool: d1 = 18 mm; d2 = 150 mm; b = 85 mm

Design

- Stranded copper wire
- Core insulation: PVC-based YI 2/TI 2 acc. VDE 0207-4
- Labelled with coloured stripes



Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	black/green	black/red	black/white	blue/black
0.25	1.5	250	2.4	4502202S	4502212S	4502222S	4502232S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	blue/green	blue/red	blue/white	brown/black
0.25	1.5	250	2.4	4502242S	4502252S	4502262S	4502272S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	brown/green	brown/white	yellow-black	yellow-red
0.25	1.5	250	2.4	4502282S	4502292S	4502302S	4502312S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	yellow-white	green-black	green-white	violet-black
0.25	1.5	250	2.4	4502322S	4502332S	4502342S	4502352S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	violet-yellow	violet-white	orange-black	orange-white
0.25	1.5	250	2.4	4502362S	4502372S	4502382S	4502392S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	red-black	red-yellow	red-white	white=black
0.25	1.5	250	2.4	4502402S	4502412S	4502422S	4502432S
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	white-blue	white-red	grey-black	
0.25	1.5	250	2.4	4502442S	4502462S	4502472S	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

H05V-K



Benefits

- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- Internal wiring of devices
- Protected installation in and on lighting equipments
- Signal systems in and on plaster in tubes

Product features

- Flame-retardant according to IEC 60332.1.2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC

Technical data

Approvals
DIN VDE HD 21/VDE 0281

Specific insulation resistance
> 20 GOhm x cm

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

Minimum bending radius
At a cable temperature of 20 °C ± 10 °C, according to HD 516
4 x outer diameter (OD) for normal use; 2 x OD for cautious bending

Nominal voltage
U₀/U: 300/500 V

Test voltage
2000 V

Current rating
Amp. VDE 0298 Part 4
HD 516/VDE 0298-300

Temperature range
Fixed installation:
-30°C to +80°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue	brown
0.5	2.5	100		4.8	9	4510001	4510011	4510021	4510141	4510031
0.75	2.7	100		7.2	12	4510002	4510012	4510022	4510142	4510032
1	2.8	100		9.6	15	4510003	4510013	4510023	4510143	4510033
0.5	2.5		250	4.8	9	4510001S	4510011S	4510021S	4510141S	4510031S
0.75	2.7		250	7.2	12	4510002S	4510012S	4510022S	4510142S	4510032S
1	2.8		250	9.6	15	4510003S	4510013S	4510023S	4510143S	4510033S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)	yellow	green	violet	Pink	orange
0.5	2.5	100		4.8	9	4510111	4510121	4510071	4510081	4510091
0.75	2.7	100		7.2	12	4510112	4510122	4510072	4510082	4510092
1	2.8	100		9.6	15	4510113	4510123	4510073	4510083	4510093
0.5	2.5		250	4.8	9	4510111S	4510121S	4510071S	4510081S	4510091S
0.75	2.7		250	7.2	12	4510112S	4510122S	4510072S	4510082S	4510092S
1	2.8		250	9.6	15	4510113S	4510123S	4510073S	4510083S	4510093S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)	Transparent	red	white	grey	ultra-marine blue
0.5	2.5	100		4.8	9	4510101	4510041	4510051	4510061	4510161
0.75	2.7	100		7.2	12	4510102	4510042	4510052	4510062	
1	2.8	100		9.6	15	4510103	4510043	4510053	4510063	4510163
0.5	2.5		250	4.8	9	4510101S	4510041S	4510051S	4510061S	4510161S
0.75	2.7		250	7.2	12	4510102S	4510042S	4510052S	4510062S	4510162S
1	2.8		250	9.6	15	4510103S	4510043S	4510053S	4510063S	4510163S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Dark blue/white
0.5	2.5	100	4.8	9	4510921
0.75	2.7	100	7.2	12	4510922
1	2.8	100	9.6	15	4510923

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

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X05V-K with twin colour helix insulation



Technical data

Based on
HD 21/VDE 0281

Specific insulation resistance
> 20 GOhm x cm

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

Minimum bending radius
4 x outer diameter (OD) if used as defined for
H05V-K; 2 x OD for cautious bending

Nominal voltage
U₀/U: 300/500 V

Test voltage
2000 V

Current rating
VDE 0298 Part 4
HD 516/VDE 0298-300

Temperature range
Fixed installation:
-30°C to +80°C

Application range

- Internal wiring of devices
- Protected installation in and on lighting equipments
- Signal systems in and on plaster in tubes

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Labelled with coloured stripes

Product features

- Flame-retardant according to IEC 60332.1.2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	Dark blue/white	black/green	black/red	black/white
0.5	2.5	250	4.8	9	4512921S	4512201S	4512211S	4512221S
0.75	2.7	250	7.2	12	4512922S	4512202S	4512212S	4512222S
1	2.8	250	9.6	15	4512923S	4512203S	4512213S	4512223S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	blue/black	blue/green	blue/red	blue/white
0.5	2.5	250	4.8	9	4512231S	4512241S	4512251S	4512261S
0.75	2.7	250	7.2	12	4512232S	4512242S	4512252S	4512262S
1	2.8	250	9.6	15	4512233S	4512243S	4512253S	4512263S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	brown/black	brown/green	brown/white	yellow-black
0.5	2.5	250	4.8	9	4512271S	4512281S	4512291S	4512301S
0.75	2.7	250	7.2	12	4512272S	4512282S	4512292S	4512302S
1	2.8	250	9.6	15	4512273S	4512283S	4512293S	4512303S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	yellow-red	yellow-white	green-black	green-white
0.5	2.5	250	4.8	9	4512311S	4512321S	4512331S	4512341S
0.75	2.7	250	7.2	12	4512312S	4512322S	4512332S	4512342S
1	2.8	250	9.6	15	4512313S	4512323S	4512333S	4512343S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	violet-black	violet-yellow	violet-white	orange-black
0.5	2.5	250	4.8	9	4512351S	4512361S	4512371S	4512381S
0.75	2.7	250	7.2	12	4512352S	4512362S	4512372S	4512382S
1	2.8	250	9.6	15	4512353S	4512363S	4512373S	4512383S

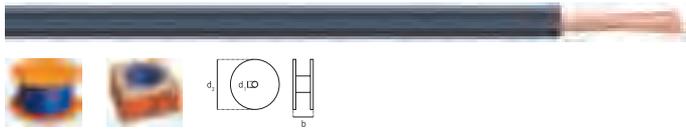
Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	orange-white	red-black	red-yellow	red-white
0.5	2.5	250	4.8	9	4512391S	4512401S	4512411S	4512421S
0.75	2.7	250	7.2	12	4512392S	4512402S	4512412S	4512422S
1	2.8	250	9.6	15	4512393S	4512403S	4512413S	4512423S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	white=black	white-blue	white-brown	white-red
0.5	2.5	250	4.8	9	4512431S	4512441S	4512451S	4512461S
0.75	2.7	250	7.2	12	4512432S	4512442S	4512452S	4512462S
1	2.8	250	9.6	15	4512433S	4512443S	4512453S	4512463S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	grey-black
0.5	2.5	250	4.8	9	4512471S
0.75	2.7	250	7.2	12	4512472S
1	2.8	250	9.6	15	4512473S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

H07V-K



Technical data



Approvals
HD 21/VDE 0281



Specific insulation resistance
> 20 GOhm x cm



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



Minimum bending radius
At a cable temperature of 20 °C ± 10 °C, according to HD 516
OD ≤ 8 mm: 4 x OD* / 2 x OD** ; 8 < OD ≤ 12 mm: 5 x OD* / 3 x OD** ; OD > 12 mm: 6 x OD* / 4 x OD**



Nominal voltage
U₀/U: 450/750 V



Test voltage
2500 V



Current rating
VDE 0298 Part 4
HD 516/VDE 0298-300



Temperature range
Fixed installation:
-30°C to +80°C

Benefits

- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Product features

- Flame-retardant according to IEC 60332.1.2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC

Application range

- Laying in tubes, exposed or buried in plaster, and in closed installation ducts
- For direct laying on racks, troughs and tubes only as potential equalisation conductor

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue	brown
1.5	3.4		150	14.4	22	4520001S	4520011S	4520021S	4520141S	4520031S
2.5	4.1		100	24.0	37	4520002S	4520012S	4520022S	4520142S	4520032S
1.5	3.4	100		14.4	22	4520001	4520011	4520021	4520141	4520031
2.5	4.1	100		24.0	37	4520002	4520012	4520022	4520142	4520032
4	4.8	100		38.4	45	4520003	4520013	4520023	4520143	4520033
6	5.3	100		57.6	71	4520004	4520014	4520024	4520144	4520034
10	6.8	100		96.0	120	4520005	4520015	4520025	4520145	4520035
16	8.1			153.6	187	4520006	4520016	4520026	4520146	4520036
25	10.2			240.0	290	4521001	4521011	4521021	4521141	4521031
35	11.7			336.0	399	4521002	4521012	4521022	4521142	4521032
50	13.9			480.0	559	4521003	4521013	4521023		4521033
70	16.0			672.0	776	4521004	4521014	4521024		4521034
95	18.2			912.0	1031	4521005	4521015	4521025		
120	20.2			1,152.0	1285	4521006	4521016	4521026		
150	22.5			1,440.0	1563	4521007	4521017			
185	24.9			1,776.0	1915	4521008	4521018	4521028		
240	28.4			2,304.0	2550	4521009	4521019			

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)	yellow	green	violet	Pink	orange
1.5	3.4		150	14.4	22	4520111S	4520121S	4520071S		4520091S
2.5	4.1		100	24.0	37	4520112S	4520122S			4520092S
1.5	3.4	100		14.4	22	4520111	4520121	4520071	4520081	4520091
2.5	4.1	100		24.0	37	4520112	4520122	4520072	4520082	4520092
4	4.8	100		38.4	45	4520113	4520123	4520073		4520093
6	5.3	100		57.6	71	4520114	4520124	4520074		4520094
10	6.8	100		96.0	120		4520125	4520075		4520095
16	8.1			153.6	187		4520126	4520076		4520096
25	10.2			240.0	290		4521121			4521091
35	11.7			336.0	399		4521122			4521092
50	13.9			480.0	559					4521093

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)	red	white	grey	ultra-marine blue
1.5	3.4		150	14.4	22	4520041S	4520051S	4520061S	
2.5	4.1		100	24.0	37	4520042S	4520052S	4520062S	
1.5	3.4	100		14.4	22	4520041	4520051	4520061	4520161
2.5	4.1	100		24.0	37	4520042	4520052	4520062	4520162
4	4.8	100		38.4	45	4520043	4520053	4520063	4520163
6	5.3	100		57.6	71	4520044	4520054	4520064	4520164
10	6.8	100		96.0	120	4520045	4520055	4520065	4520165
16	8.1			153.6	187	4520046	4520056	4520066	4520166
25	10.2			240.0	290	4521041	4521051	4521061	
35	11.7			336.0	399	4521042		4521062	
50	13.9			480.0	559	4521043		4521063	
70	16.0			672.0	776	4521044			
120	20.2			1,152.0	1285	4521046			4521166

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

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

Packaging size: Coil ≤ 30 kg, otherwise drum

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

*for conventional use, **for careful bending; "OD" = outer diameter

Similar products

- Multi-Standard SC 2.1 refer to page 204
- Multi-Standard SC 2.2 refer to page 206

Accessories

- Mobile crimp tool crimping pliers refer to page 931
- DIN-assorted boxes conductor end sleeves refer to page 913
- PEW 8.87 crimping pliers refer to page 916
- FLEXIMARK® Collar Snap-on refer to page 856

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X07V-K with twin colour helix insulation



Technical data

DIN VDE Based on HD 21/VDE 0281

Specific insulation resistance > 20 GOhm x cm

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

Minimum bending radius 4 x outer diameter (OD) if used as defined for H07V-K; 2 x OD for cautious bending

Nominal voltage U₀/U: 450/750 V

Test voltage 2500 V

Current rating VDE 0298 Part 4 HD 516/VDE 0298-300

Temperature range Fixed installation: -30°C to +80°C

Application range

- Laying in tubes, exposed or buried in plaster, and in closed installation ducts
- For direct laying on racks, troughs and tubes only as potential equalisation conductor

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Labelled with coloured stripes

Product features

- Flame-retardant according to IEC 60332.1.2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	Dark blue/white	black/green	black/red	black/white	blue/black	blue/green	blue/red
1.5	3.4	150	14.4	22	4522921S	4522201S	4522211S	4522221S	4522231S	4522241S	4522251S
2.5	4.1	100	24.0	37	4522922S		4522212S	4522222S	4522232S	4522242S	4522252S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	blue/white	brown/black	brown/green	brown/white	yellow-black	yellow-red	yellow-white
1.5	3.4	150	14.4	22	4522261S	4522271S	4522281S	4522291S	4522301S	4522311S	4522321S
2.5	4.1	100	24.0	37	4522262S	4522272S		4522292S	4522302S	4522312S	4522322S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	green-black	green-white	violet-yellow	violet-white	orange-black	orange-white	red-black
1.5	3.4	150	14.4	22	4522331S	4522341S	4522361S	4522371S	4522381S	4522391S	4522401S
2.5	4.1	100	24.0	37	4522332S	4522342S	4522362S	4522372S		4522392S	4522402S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	red-yellow	red-white	white-black	white-blue	white-brown	white-red	grey-black
1.5	3.4	150	14.4	22	4522411S	4522421S	4522431S	4522441S	4522451S	4522461S	4522471S
2.5	4.1	100	24.0	37	4522412S	4522422S	4522432S	4522442S	4522452S	4522462S	4522472S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- X05V-K with twin colour helix insulation refer to page 197

Accessories

- FLEXIMARK® FLEXIPRINT LF Single core marking refer to page 879
- DIN-assorted boxes conductor end sleeves refer to page 913
- EASY STRIP 2 stripping and cutting tool refer to page 905
- PEW 8.87 crimping pliers refer to page 916

S07V-K numbered

Simplified and safer assignment during wiring through numbered insulation



Info

- Numbered insulation

Benefits

- Safe assignment of several cores in the control cabinet
- Greatly simplifies the installation

Application range

- Control cabinet wiring
- Laying in tubes, exposed or buried in plaster, and in closed installation ducts

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Printed numbers, digits 1 to 3

Technical data



Based on
HD 21/VDE 0281



Specific insulation resistance
> 20 GOhm x cm



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



Minimum bending radius
OD ≤ 8 mm: 4 x OD*/2 x OD**;
8 < OD ≤ 12 mm: 5 x OD*/3 x OD**



Nominal voltage
U0/U: 450/750 VAC
In protected and fixed installations:
U0/U: 600/1000 V



Test voltage
2500 V



Current rating
VDE 0298 Part 4
HD 516/VDE 0298-300



Temperature range
Fixed installation:
-30°C to +80°C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Core colour	Core imprint	Copper index (kg/km)	Weight (kg/km)
4800000	10	6.8	black	1	96.0	120
4800001	10	6.8	black	2	96.0	120
4800002	10	6.8	black	3	96.0	120
4800003	10	6.8	brown	1	96.0	120
4800004	10	6.8	brown	2	96.0	120
4800005	10	6.8	brown	3	96.0	120
4800006	16	8.1	black	1	154.0	187
4800007	16	8.1	black	2	154.0	187
4800008	16	8.1	black	3	154.0	187
4800009	16	8.1	brown	1	154.0	187
4800010	16	8.1	brown	2	154.0	187
4800011	16	8.1	brown	3	154.0	187

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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, otherwise drum

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

*for use defined for H07V-K; **for careful bending; "OD" = outer diameter

Similar products

- H07V-K refer to page 198
- Multi-Standard SC 2.1 refer to page 204

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- EASY STRIP 2 stripping and cutting tool refer to page 905
- PEW 8.87 crimping pliers refer to page 916

H05V-K in big one-way cardboard box

Harmonised, flexible single conductor for protected, fixed installation



Info

- Efficient
- Harmonised (HAR)

H05V-K in big one-way cardboard box



Technical data

	Approvals HD 21/VDE 0281
	Specific insulation resistance > 20 GOhm x cm
	Conductor stranding Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
	Minimum bending radius At a cable temperature of 20 °C ± 10 °C, according to HD 516 4 x outer diameter (OD) for normal use; 2 x OD for cautious bending
	Nominal voltage U ₀ /U = 300/500 V AC
	Test voltage 2000 V AC
	Current rating VDE 0298 Part 4 HD 516/VDE 0298-300
	Temperature range Fixed installation: -30 °C to +80 °C

Benefits

- Higher cost-effectiveness due to optimum processing volumes
- Single cores are embossed so that an additional, subsequent marking by ink jet printing is readable
- The comparatively low weight of the cardboard boxes makes handling easy
- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC

Application range

- Ideal for assembling to achieve longer operating times and trouble-free printing
- Suitable for assembling cable harnesses and wiring during switch cabinet installation

Conductor cross-section (mm ²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue	brown
0.5	2.5	3,000	4.8	9	4510001K	4510011K	4510021K	4511064K	4511065K
0.5	2.5	9,000	4.8	9			4510021E	4511060E	
0.75	2.7	2,500	7.2	12	4510002K	4510012K	4510022K	4511042K	4510032K
0.75	2.7	7,500	7.2	12		4510012E	4510022E	4511061E	
1	2.8	2,000	9.6	15	4510003K	4510013K	4510023K	4511043K	4510033K
1	2.8	6,000	9.6	15	4510003E	4510013E	4510023E	4511062E	4511063E

Conductor cross-section (mm ²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	yellow	green	violet	Pink	orange
0.5	2.5	3,000	4.8	9	4511066K	4511067K	4511068K	4511069K	4511070K
0.5	2.5	9,000	4.8	9					4510091E
0.75	2.7	2,500	7.2	12	4510112K	4510122K	4510072K	4510082K	4510092K
0.75	2.7	7,500	7.2	12					4510092E
1	2.8	2,000	9.6	15	4510113K	4510123K	4510073K	4510083K	4510093K
1	2.8	6,000	9.6	15					4510093E

Conductor cross-section (mm ²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	red	white	grey	Dark blue/white	blue/white
0.5	2.5	3,000	4.8	9	4511071K	4511072K	4511073K		
0.5	2.5	9,000	4.8	9	4510041E				
0.75	2.7	2,500	7.2	12	4510042K	4510052K	4510062K	4510922K	4510262K
0.75	2.7	7,500	7.2	12	4510042E		4510062E		
1	2.8	2,000	9.6	15	4510043K	4510053K	4510063K	4510923K	4510263K
1	2.8	6,000	9.6	15	4510043E	4510053E	4510063E		

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H05V-K refer to page 196
- H07V-K refer to page 198

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- EASY STRIP 2 stripping and cutting tool refer to page 905
- BULLI cable shears refer to page 903
- PEW 8.87 crimping pliers refer to page 916

H07V-K in big one-way cardboard box

Harmonised, flexible single conductor for protected, fixed installation

H07V-K in big one-way cardboard box



Benefits

- Higher cost-effectiveness due to optimum processing volumes
- Single cores are embossed so that an additional, subsequent marking by ink jet printing is readable
- The comparatively low weight of the cardboard boxes makes handling easy
- Type-compliant versions <HAR>-certified with "CE" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- Ideal for assembling to achieve longer operating times and trouble-free printing
- Suitable for assembling cable harnesses and wiring during switch cabinet installation

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC



Info

- Efficient
- Harmonised (HAR)

Technical data



Approvals
HD 21/VDE 0281



Specific insulation resistance
> 20 GOhm x cm



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



Minimum bending radius
At a cable temperature of 20 °C ± 10 °C, according to HD 516
4 x outer diameter (OD) for normal use; 2 x OD for cautious bending



Nominal voltage
U₀/U = 450/750 V AC



Test voltage
2500 V AC



Current rating
VDE 0298 Part 4
HD 516/VDE 0298-300



Temperature range
Fixed installation:
-30°C to +80°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue	brown
1.5	3.4	1,500	14.4	22	4520001K	4520011K	4520021K	4520141K	4520031K
1.5	3.4	4,000	14.4	22	4520001E	4520011E	4520021E	4520141E	4520031E
2.5	4.1	2,500	24.0	37	4520002E	4520012E	4520022E		
2.5	4.1	900	24.0	37	4520002K	4520012K	4520022K	4520142K	4520032K
4	4.8	2,000	38.4	45	4520003E	4520013E	4520023E		
4	4.8	600	38.4	45	4520003K	4520013K	4520023K	4520143K	4520033K
6	5.3	1,500	57.6	71	4520004E	4520014E	4520024E		
6	5.3	400	57.6	71	4520004K	4520014K	4520024K		4520034K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	yellow	green	violet	Pink	orange
1.5	3.4	1,500	14.4	22	4520111K		4520071K	4520081K	4520091K
1.5	3.4	4,000	14.4	22					4520091E
2.5	4.1	2,500	24.0	37					4520092E
2.5	4.1	900	24.0	37	4520112K	4520122K	4520072K		4520092K
4	4.8	600	38.4	45	4520113K		4520073K		4520093K
6	5.3	1,500	57.6	71			4520074E		
6	5.3	400	57.6	71		4520124K	4520074K		4520094K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	red	white	grey	Dark blue/white	blue/white
1.5	3.4	1,500	14.4	22	4520041K	4520051K	4520061K		4520261K
1.5	3.4	4,000	14.4	22	4520041E	4520051E	4520061E		
2.5	4.1	2,500	24.0	37	4520042E		4520062E		
2.5	4.1	900	24.0	37	4520042K	4520052K	4520062K	4520922K	
4	4.8	600	38.4	45	4520043K	4520053K	4520063K		
6	5.3	1,500	57.6	71	4520044E				
6	5.3	400	57.6	71	4520044K	4520054K	4520064K		4520264K

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H05V-K refer to page 196
- H07V-K refer to page 198

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- EASY STRIP 2 stripping and cutting tool refer to page 905
- BULLI cable shears refer to page 903
- PEW 8.87 crimping pliers refer to page 916

Multi-Standard SC 1

UL-recognised (AWM) + CSA AWM I A/B + <HAR> H05V-K, tinned-copper strands



Info

- Formerly: Multi-Standard single core UL-CSA-HAR 1007/1569



Multi-Standard SC 1



Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Easy storage
- Increases the cost-effectiveness of the production process
- <HAR> type-compliant versions <HAR>-certified with "<HAR>" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area; separate testing mark: by UL for design certification according to the UL standard UL AWM (according to UL 758) and by the CSA for design certification according to the CSA standard CSA AWM I A/B (according to C22.2 No. 210-05)

Application range

- Factory wiring
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according to IEC 60332.1.2
- Flame-retardant according to UL VW1/CSA FT1
- Oil-resistant

Approvals



- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Design

- Fine-wire strand made of tinned-copper wires
- Special PVC-based core insulation
- No outer sheath, no nylon jacket, no outer wrapping

Technical data

DIN VDE Approvals
H05V-K: HD 21/VDE 0281;
UL AWM (according to UL 758) Styles 1007, 1569 (UL AWM file number of U.I. Lapp GmbH: E63634);
CSA AWM I A/B (according to C22.2 No. 210-05)

Specific insulation resistance
> 10 GOhm x cm

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

Minimum bending radius
4 x outer diameter (OD) for normal use; 2 x OD for cautious bending

Nominal voltage
HAR / IEC: U₀/U: 300/500 V;
UL (AWM): U: 300 V;
CSA (AWM I A/B): U: 300 V

Test voltage
2000 V

Temperature range
Fixed installation:
HAR/IEC: -40 °C to +70 °C;
UL (AWM): -40 °C to +105 °C;
CSA (AWM I A/B): -40 °C to +105 °C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue
0.5	2.5	100	4.8	9	4180400	4180401	4180402
0.75	2.6	100	7.2	12	4180500	4180501	4180502
1	2.8	100	9.6	15	4180600	4180601	4180602

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Dark blue	brown	yellow
0.5	2.5	100	4.8	9	4180414	4180403	4180410
0.75	2.6	100	7.2	12	4180514	4180503	4180510
1	2.8	100	9.6	15	4180614	4180603	4180610

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	green	violet	orange
0.5	2.5	100	4.8	9		4180407	4180409
0.75	2.6	100	7.2	12		4180507	
0.75	2.6	100	7.2	12			4180509
1	2.8	100	9.6	15	4180611	4180607	4180609

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	red	white	grey
0.5	2.5	100	4.8	9	4180404	4180405	4180406
0.75	2.6	100	7.2	12	4180504	4180505	4180506
1	2.8	100	9.6	15	4180604	4180605	4180606

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H05V-K refer to page 196
- Multi-Standard SC 2.1 refer to page 204

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- EASY STRIP 2 stripping and cutting tool refer to page 905
- PEW 8.87 crimping pliers refer to page 916
- FLEXIMARK® Collar Snap-on refer to page 856

Multi-Standard SC 2.1

USA: UL-listed (MTW), Canada: CSA (TEW), Europe: <HAR> H07V-K (depending on cross s.), tin-plated strands

Multi-Standard SC 2.1



Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Easier storage; increases the cost-effectiveness of the production process
- Works with "Conductor end sleeves XL, insulated"
- <HAR> H07V-K type-compliant versions (not 0.5 mm², 0.75 mm² or 1 mm² according to HD 21.3/VDE 0281-3; not 16 mm² according to internal technical specification at Lapp; no two-tone core insulation except green-yellow according to HD 21.1/VDE 0281-1) <HAR>-certified with "<HAR>" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area; separate testing mark: by UL for design certifications according to the UL standards UL AWM (according to UL 758) and (UL) MTW (according to UL 1063) and by the CSA for design certification according to the CSA standard CSA TEW (according to C22.2 No. 127)

Application range

- Factory wiring
- Field wiring
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according to IEC 60332.1.2
- Flame-retardant according to UL VW1/CSA FT1
- Oil-resistant

Approvals



- Compliant with NFPA 79 Edition 2007
- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.
- Detailed information about the approvals can be found in the "Technical data" box

Design

- Fine-wire strand made of tinned-copper wires
- Special PVC-based core insulation
- No outer sheath, no nylon jacket, no outer wrapping



Info

- The all-rounder for many markets

Technical data



Approvals

H07V-K: HD 21/VDE 0281;
UL AWM (according to UL 758) Style 1015 (UL AWM file number of U.I. Lapp GmbH: E63634); (UL) MTW (according to UL 1063) ((UL) MTW file number of U.I. Lapp GmbH: E198296); CSA TEW (according to C22.2 No. 127)



Specific insulation resistance

> 10 GOhm x cm



Conductor stranding

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



Minimum bending radius

OD ≤ 8 mm: 4 x OD* / 2 x OD**; 8 < OD ≤ 12 mm: 5 x OD* / 3 x OD**; OD > 12 mm: 6 x OD* / 4 x OD**



Nominal voltage

HAR / IEC: U₀/U: 450/750 V;
UL (AWM): U: 600 V;
UL (MTW): U: 600 V;
CSA (TEW): U: 600 V



Test voltage

2500 V



Temperature range

Fixed installation:
HAR/IEC: -40°C to +70°C;
UL (AWM): -40°C to +105°C;
UL (MTW): -40°C to +90°C;
CSA (TEW): -40°C to +105°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black
0.5	2.7	100		4.8	10	4160100	4160101
0.75	2.9	100		7.2	13	4160200	4160201
1	3.1	100		9.6	16	4160300	4160301
1.5	3.4	100		14.4	22	4160400	4160401
2.5	4.0	100		24.0	37	4160500	4160501
4	4.6	100		38.4	45	4160600	4160601
6	5.1	100		58.0	71	4160700	4160701
10	6.8	100		96.0	120	4160800	4160801
16	9.0	100		154.0	187	4160900	4160901
25	10.2	100		240.0	290	4161000	4161001
35	11.7			336.0	399	4161100	4161101
50	13.9			480.0	559	4161200	4161201
70	16.0			672.0	776	4161300	4161301
95	18.2			912.0	1031	4161400	4161401
120	19.8			1,152.0	1285	4161500	4161501
0.5	2.7		3,000	4.8	10		4160101K
0.75	2.9		2,500	7.2	13	4160200K	4160201K
1	3.1		2,000	9.6	16	4160300K	4160301K
1.5	3.4		1,500	14.4	22	4160400K	4160401K
2.5	4.0		900	24.0	37	4160500K	4160501K
4	4.6		600	38.4	45	4160600K	4160601K
6	5.1		400	58.0	71	4160700K	4160701K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	blue	Dark blue
0.5	2.7	100		4.8	10	4160102	4160114
0.75	2.9	100		7.2	13	4160202	4160214
1	3.1	100		9.6	16	4160302	4160314
1.5	3.4	100		14.4	22	4160402	4160414
2.5	4.0	100		24.0	37	4160502	4160514
4	4.6	100		38.4	45	4160602	4160614
6	5.1	100		58.0	71	4160702	4160714
10	6.8	100		96.0	120	4160802	4160814
16	9.0	100		154.0	187	4160902	4160914
25	10.2	100		240.0	290	4161002	4161014
35	11.7			336.0	399	4161102	
50	13.9			480.0	559	4161202	
70	16.0			672.0	776	4161302	
95	18.2			912.0	1031	4161402	
120	19.8			1,152.0	1285	4161502	
0.5	2.7		3,000	4.8	10	4160102K	4160114K
0.75	2.9		2,500	7.2	13	4160202K	4160214K
1	3.1		2,000	9.6	16	4160302K	4160314K
1.5	3.4		1,500	14.4	22	4160402K	4160414K
2.5	4.0		900	24.0	37	4160502K	4160514K
4	4.6		600	38.4	45	4160602K	4160614K
6	5.1		400	58.0	71	4160702K	4160714K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	brown	yellow
0.5	2.7	100		4.8	10	4160103	4160110
0.75	2.9	100		7.2	13	4160203	4160210
1	3.1	100		9.6	16	4160303	4160310
1.5	3.4	100		14.4	22	4160403	4160410
2.5	4.0	100		24.0	37	4160503	4160510
4	4.6	100		38.4	45	4160603	4160610
6	5.1	100		58.0	71	4160703	4160710
10	6.8	100		96.0	120	4160803	4160810
16	9.0	100		154.0	187	4160903	4160910
25	10.2	100		240.0	290	4161003	4161010
35	11.7			336.0	399		4161110
50	13.9			480.0	559		4161210
70	16.0			672.0	776		4161310
0.5	2.7		3,000	4.8	10	4160103K	
0.75	2.9		2,500	7.2	13	4160203K	
1	3.1		2,000	9.6	16	4160303K	
1.5	3.4		1,500	14.4	22	4160403K	4160410K
2.5	4.0		900	24.0	37	4160503K	4160510K
4	4.6		600	38.4	45	4160603K	

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	green	violet
0.5	2.7	100		4.8	10	4160111	4160107
0.75	2.9	100		7.2	13	4160211	4160207
1	3.1	100		9.6	16	4160311	4160307
1.5	3.4	100		14.4	22	4160411	4160407
2.5	4.0	100		24.0	37	4160511	4160507
4	4.6	100		38.4	45	4160611	4160607
6	5.1	100		58.0	71	4160711	4160707
10	6.8	100		96.0	120	4160811	
16	9.0	100		154.0	187	4160911	
25	10.2	100		240.0	290	4161011	
35	11.7			336.0	399	4161111	
50	13.9			480.0	559	4161211	
70	16.0			672.0	776	4161311	
0.5	2.7		3,000	4.8	10	4160111K	4160107K
0.75	2.9		2,500	7.2	13		4160207K
1	3.1		2,000	9.6	16	4160311K	4160307K
1.5	3.4		1,500	14.4	22		4160407K
2.5	4.0		900	24.0	37	4160511K	4160507K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	Pink	orange
0.5	2.7	100		4.8	10	4160108	4160109
0.75	2.9	100		7.2	13	4160208	4160209
1	3.1	100		9.6	16	4160308	4160309
1.5	3.4	100		14.4	22	4160408	4160409
2.5	4.0	100		24.0	37		4160509
4	4.6	100		38.4	45		4160609
6	5.1	100		58.0	71		4160709
10	6.8	100		96.0	120		4160809
16	9.0	100		154.0	187		4160909
25	10.2	100		240.0	290		4161009
35	11.7			336.0	399		4161109
0.5	2.7		3,000	4.8	10		4160109K
0.75	2.9		2,500	7.2	13		4160209K
1	3.1		2,000	9.6	16		4160309K
1.5	3.4		1,500	14.4	22		4160409K
2.5	4.0		900	24.0	37		4160509K
4	4.6		600	38.4	45		4160609K
6	5.1		400	58.0	71		4160709K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	red	white
0.5	2.7	100		4.8	10	4160104	4160105
0.75	2.9	100		7.2	13	4160204	4160205
1	3.1	100		9.6	16	4160304	4160305
1.5	3.4	100		14.4	22	4160404	4160405
2.5	4.0	100		24.0	37	4160504	4160505
4	4.6	100		38.4	45	4160604	4160605
6	5.1	100		58.0	71	4160704	4160705
10	6.8	100		96.0	120	4160804	4160805
16	9.0	100		154.0	187	4160904	4160905
25	10.2	100		240.0	290	4161004	4161005
35	11.7			336.0	399	4161104	4161105
120	19.8			1,152.0	1285		4161505
0.5	2.7		3,000	4.8	10	4160104K	4160105K
0.75	2.9		2,500	7.2	13	4160204K	4160205K
1	3.1		2,000	9.6	16	4160304K	4160305K
1.5	3.4		1,500	14.4	22	4160404K	4160405K
2.5	4.0		900	24.0	37	4160504K	4160505K
4	4.6		600	38.4	45	4160604K	
6	5.1		400	58.0	71	4160704K	4160705K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	grey	blue/white
0.5	2.7	100		4.8	10	4160106	4160126
0.75	2.9	100		7.2	13	4160206	4160226
1	3.1	100		9.6	16	4160306	4160326
1.5	3.4	100		14.4	22	4160406	4160426
2.5	4.0	100		24.0	37	4160506	4160526
4	4.6	100		38.4	45	4160606	4160626
6	5.1	100		58.0	71	4160706	4160726
10	6.8	100		96.0	120	4160806	4160826
16	9.0	100		154.0	187	4160906	
25	10.2	100		240.0	290	4161006	
35	11.7			336.0	399	4161106	
70	16.0			672.0	776	4161306	
95	18.2			912.0	1031	4161406	
0.5	2.7		3,000	4.8	10	4160106K	4160126K
1	3.1		2,000	9.6	16	4160306K	4160326K
1.5	3.4		1,500	14.4	22	4160406K	4160426K

Control Cabinet Single Cores

Harmonised and approved

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	white-blue	white-red
0.5	2.7	100		4.8	10	4160144	
0.75	2.9	100		7.2	13	4160244	
1	3.1	100		9.6	16	4160344	
1.5	3.4	100		14.4	22	4160444	
2.5	4.0	100		24.0	37	4160544	
4	4.6	100		38.4	45	4160644	
6	5.1	100		58.0	71	4160744	
10	6.8	100		96.0	120	4160844	
16	9.0	100		154.0	187	4160944	
0.5	2.7		3,000	4.8	10	4160144K	
0.75	2.9		2,500	7.2	13	4160244K	
1	3.1		2,000	9.6	16	4160344K	
1.5	3.4		1,500	14.4	22	4160444K	
2.5	4.0		900	24.0	37	4160544K	4160546K

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.

Packaging size: Coil ≤ 30 kg, otherwise drum

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

Non-harmonised, nominal cross-sections: 0.5 mm², 0.75 mm², 1 mm², 16 mm²

*for conventional use, **for careful bending; "OD" = outer diameter

Similar products

- H07V-K refer to page 198
- Multi-Standard SC 2.2 refer to page 206

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- Conductor end sleeves XL, insulated refer to page 914
- PEW 8.87 crimping pliers refer to page 916

Multi-Standard SC 2.2

UL-listed (MTW), CSA (TEW), <HAR> H07V2-K: max. +90°C, UL (AWM): Umax = 1 kV, tinned-copper strands



Multi-Standard SC 2.2



Info

- Higher maximum conductor temperature - H07V2-K: +90 °C according to HD 21/VDE 0281
- Higher voltage range according to UL

Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Easier storage; increases the cost-effectiveness of the production process
- Works with "Conductor end sleeves XL, insulated"
- <HAR> H07V2-K type-compliant versions (not 0.5 mm², 0.75 mm² or 1 mm² or nominal conductor cross-sections exceeding 35 mm²/starting at 50 mm² according to HD 21.7/VDE 0281-7; not 16 mm² according to internal technical specification at Lapp; no two-tone core insulation except green-yellow according to HD 21.1/VDE 0281-1) <HAR>-certified with "<HAR>" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area; separate testing mark: by UL for design certifications according to the UL standards UL AWM (according to UL 758) and (UL) MTW (according to UL 1063) and by the CSA for design certification according to the CSA standard CSA TEW (according to C22.2 No. 127)

Application range

- Factory wiring
- Field wiring
- Frequency converter power supply
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according to IEC 60332.1.2
- Flame-retardant according to UL VW1/CSA FT1
- Oil-resistant

Approvals






- Compliant with NFPA 79 Edition 2007
- Multi-standard cables have conductor strands with nominal sizes in mm² or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.
- Detailed information about the approvals can be found in the "Technical data" box

Design

- Fine-wire strand made of tinned-copper wires
- Special PVC-based core insulation
- No outer sheath, no nylon jacket, no outer wrapping

Technical data

Approvals
 H07V2-K: HD 21/VDE 0281; UL AWM (according to UL 758) Style 10269 (UL AWM file number of U.I. Lapp GmbH: E63634); (UL) MTW (according to UL 1063) ((UL) MTW file number of U.I. Lapp GmbH: E198296); CSA TEW (according to C22.2 No. 127)

Specific insulation resistance
 > 10 GOhm x cm

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

Minimum bending radius
 OD ≤ 8 mm: 4 x OD* / 2 x OD**; 8 < OD ≤ 12 mm: 5 x OD* / 3 x OD**; OD > 12 mm: 6 x OD* / 4 x OD**

Nominal voltage
 HAR / IEC: U₀/U: 450/750 V; UL (AWM): U: 1000 V; UL (MTW): U: 600 V; CSA (TEW): U: 600 V

Test voltage
 IEC: 2500 V AC; UL: 4000 V AC

Temperature range
 Fixed installation: HAR/IEC: -40°C to +90°C; UL (AWM): -40°C to +105°C; UL (MTW): -40°C to +90°C; CSA (TEW): -40°C to +105°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue
0.5	2.7	100	4.8	10	4150100	4150101	4150102
0.75	2.9	100	7.2	13	4150200	4150201	4150202
1	3.1	100	9.6	16	4150300	4150301	4150302
1.5	3.4	100	14.4	22	4150400	4150401	4150402
2.5	4.0	100	24.0	37	4150500	4150501	4150502
4	4.6	100	38.4	45	4150600	4150601	4150602
6	5.1	100	58.0	71	4150700	4150701	4150702
10	6.8	100	96.0	120	4150800	4150801	4150802
16	9.0	100	154.0	187	4150900	4150901	4150902
25	10.2	100	240.0	290	4151000	4151001	4151002
35	11.7		336.0	399	4151100	4151101	4151102
50	13.9		480.0	559		4151201	
70	16.0		672.0	776		4151301	
95	18.2		912.0	1031		4151401	
120	19.8		1,152.0	1285	4151500		

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Dark blue	brown	yellow
0.5	2.7	100	4.8	10	4150114	4150103	
0.75	2.9	100	7.2	13	4150214	4150203	
1	3.1	100	9.6	16		4150303	
1.5	3.4	100	14.4	22	4150414	4150403	4150410
2.5	4.0	100	24.0	37	4150514	4150503	
4	4.6	100	38.4	45	4150614	4150603	4150610
6	5.1	100	58.0	71		4150703	
10	6.8	100	96.0	120		4150803	
25	10.2	100	240.0	290		4151003	
35	11.7		336.0	399		4151103	

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	violet	orange	red
0.5	2.7	100	4.8	10			4150104
0.5	2.7	100	4.8	10		4150109	
0.75	2.9	100	7.2	13		4150209	4150204
1	3.1	100	9.6	16	4150307	4150309	4150304
1.5	3.4	100	14.4	22		4150409	4150404
2.5	4.0	100	24.0	37		4150509	4150504
4	4.6	100	38.4	45		4150609	4150604
6	5.1	100	58.0	71		4150709	4150704
10	6.8	100	96.0	120		4150809	4150804
16	9.0	100	154.0	187		4150909	4150904

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	white	grey	blue/white
0.5	2.7	100	4.8	10	4150105	4150106	
0.75	2.9	100	7.2	13	4150205	4150206	
1	3.1	100	9.6	16	4150305	4150306	4150326
1.5	3.4	100	14.4	22	4150405	4150406	4150426
2.5	4.0	100	24.0	37	4150505	4150506	
4	4.6	100	38.4	45	4150605	4150606	
6	5.1	100	58.0	71	4150705	4150706	
10	6.8	100	96.0	120		4150806	
16	9.0	100	154.0	187		4150906	
35	11.7		336.0	399		4151106	

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	white-blue
1	3.1	100	9.6	16	4150344
1.5	3.4	100	14.4	22	4150444

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

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

Packaging size: Coil ≤ 30 kg, otherwise drum

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

Non-harmonised, nominal cross-sections: 0.5 mm², 0.75 mm², 1 mm², 16 mm², 50 mm², 70 mm², 95 mm², 120 mm²

*for conventional use, **for careful bending; "OD" = outer diameter

Similar products

- Multi-Standard SC 2.1 refer to page 204

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 913
- Conductor end sleeves XL, insulated refer to page 914
- EASY STRIP 2 stripping and cutting tool refer to page 905
- PEW 8.87 crimping pliers refer to page 916
- FLEXIMARK® Collar Snap-on refer to page 856

H05Z-K 90°C

Harmonised; halogen-free to protect human life, the environment and material assets

H05Z-K 90°C



Info

- Halogen-free
- Harmonised (HAR)

Benefits

- Protection of human life and the environment thanks to the avoidance of the formation of acid in case of fire
- Type-compliant versions <HAR>-certified with "<HAR>" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- For wiring of lamps, devices, switchgear cabinets and distribution boxes
- For installation in tubes, on, in and under plaster as well as in closed installation ducts
- In building with a high density of people or valuable assets
- For use in dry rooms

Product features

- The insulation material is halogen-free and free of other materials which could release toxic gases in the event of fire
- Low amount of corrosive gases in the event of fire
- Low smokes/low smoke density in the event of fire according to IEC 61034
- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free

Technical data

Approvals
DIN VDE HD 22.9/VDE 0282-9

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

Minimum bending radius
At a cable temperature of 20 °C ± 10 °C, according to HD 516
4 x outer diameter (OD) for normal use; 2 x OD for cautious bending

Nominal voltage
U₀/U: 300/500 V

Test voltage
2000 V AC

Current rating
VDE 0298-4
HD 516/VDE 0298-300

Temperature range
Fixed installation: -15°C to +90°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue
0.5	2.6	100		4.8	9	4725001	4725011	4725021	4725141
0.5	2.6		4,000	4.8	9	4725001K	4725011K	4725021K	4725141K
0.75	2.8	100		7.2	11	4725002	4725012	4725022	4725142
0.75	2.8		3,000	7.2	11	4725002K	4725012K	4725022K	4725142K
1	2.9	100		9.6	14	4725003	4725013	4725023	4725143
1	2.9		3,000	9.6	14	4725003K	4725013K	4725023K	4725143K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	brown	yellow	green	violet
0.5	2.6	100		4.8	9	4725031	4725111	4725121	4725071
0.5	2.6		4,000	4.8	9		4725111K	4725121K	4725071K
0.75	2.8	100		7.2	11	4725032	4725112	4725122	4725072
0.75	2.8		3,000	7.2	11	4725032K	4725112K	4725122K	4725072K
1	2.9	100		9.6	14	4725033	4725113	4725123	4725073
1	2.9		3,000	9.6	14	4725033K	4725113K	4725123K	4725073K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	Pink	orange	red	white
0.5	2.6	100		4.8	9	4725081	4725091	4725041	4725051
0.5	2.6		4,000	4.8	9	4725081K	4725091K	4725041K	4725051K
0.75	2.8	100		7.2	11	4725082	4725092	4725042	4725052
0.75	2.8		3,000	7.2	11	4725082K	4725092K	4725042K	4725052K
1	2.9	100		9.6	14	4725083	4725093	4725043	4725053
1	2.9		3,000	9.6	14	4725083K	4725093K	4725043K	4725053K

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	grey
0.5	2.6	100		4.8	9	4725061
0.5	2.6		4,000	4.8	9	4725061K
0.75	2.8	100		7.2	11	4725062
0.75	2.8		3,000	7.2	11	4725062K
1	2.9	100		9.6	14	4725063
1	2.9		3,000	9.6	14	4725063K

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
 Packaging size: Coil ≤ 30 kg, otherwise drum
 Photographs are not to scale and do not represent detailed images of the respective products.
 *for conventional use, **for careful bending; "OD" = outer diameter

ÖLFLEX®
 UNITRONIC®
 ETHERLINE®
 HITRONIC®
 EPIC®
 SKINTOP®
 SILVYN®
 FLEXIMARK®
 ACCESSORIES
 APPENDIX

H07Z-K 90°C

Harmonised; halogen-free to protect human life, the environment and material assets



Info

- Halogen-free
- Harmonised (HAR)

Benefits

- Protection of human life and the environment thanks to the avoidance of the formation of acid in case of fire
- Type-compliant versions <HAR>-certified with "<HAR>" testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

Application range

- For wiring of lamps, devices, switchgear cabinets and distribution boxes
- For installation in tubes, on, in and under plaster as well as in closed installation ducts
- In building with a high density of people or valuable assets
- For use in dry rooms

Product features

- The insulation material is halogen-free and free of other materials which could release toxic gases in the event of fire
- Low amount of corrosive gases in the event of fire
- Low smokes/low smoke density in the event of fire according to IEC 61034
- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free

Technical data

- Approvals**
DIN VDE HD 22.9/VDE 0282-9
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
At a cable temperature of 20 °C ± 10 °C, according to HD 516
OD ≤ 8 mm: 4 x OD* / 2 x OD** ; 8 < OD ≤ 12 mm: 5 x OD* / 3 x OD** ; OD > 12 mm: 6 x OD* / 4 x OD**
- Nominal voltage**
U₀/U: 450 / 750 V
- Test voltage**
2500 V
- Current rating**
VDE 0298-4
HD 516/VDE 0298-300
- Temperature range**
Fixed installation: -15°C to +90°C



Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue
1.5	3.5	100		14.4	20	4726001	4726011	4726021	4726141
1.5	3.5		2,000	14.4	20	4726001K	4726011K	4726021K	4726141K
2.5	4.3	100		24.0	32	4726002	4726012	4726022	4726142
2.5	4.3		1,500	24.0	32	4726002K	4726012K	4726022K	4726142K
4	4.9	100		38.4	45	4726003	4726013	4726023	4726143
4	4.9		1,000	38.4	45	4726003K	4726013K	4726023K	4726143K
6	5.5	100		57.6	65	4726004	4726014	4726024	4726144
6	5.5		750	57.6	65	4726004K	4726014K	4726024K	4726144K
10	7.1	100		96.0	110	4726005	4726015	4726025	4726145
16	8.4	100		153.6	170	4726006	4726016	4726026	4726146
25	10.6	100		240.0	290	4726007	4726017	4726027	4726147
35	12.1			336.0	380	4726008	4726018	4726028	4726148
50	14.4			480.0	530	4726009	4726019	4726029	4726149
70	16.6			672.0	750	4727001	4727011	4727021	4727141
95	18.8			912.0	1000	4727002	4727012	4727022	4727142

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	brown	yellow	green	violet
1.5	3.5	100		14.4	20	4726031	4726111	4726121	4726071
1.5	3.5		2,000	14.4	20	4726031K	4726111K	4726121K	4726071K
2.5	4.3	100		24.0	32	4726032	4726112	4726122	4726072
2.5	4.3		1,500	24.0	32	4726032K	4726112K	4726122K	4726072K
4	4.9	100		38.4	45	4726033	4726113	4726123	4726073
4	4.9		1,000	38.4	45	4726033K	4726113K	4726123K	4726073K
6	5.5	100		57.6	65	4726034	4726114	4726124	4726074
6	5.5		750	57.6	65	4726034K	4726114K	4726124K	4726074K
10	7.1	100		96.0	110	4726035	4726115	4726125	4726075
16	8.4	100		153.6	170	4726036	4726116	4726126	4726076
25	10.6	100		240.0	290	4726037	4726117	4726127	4726077
35	12.1			336.0	380	4726038	4726118	4726128	4726078
50	14.4			480.0	530	4726039	4726119	4726129	4726079
70	16.6			672.0	750	4727031	4727111	4727121	4727071
95	18.8			912.0	1000	4727032	4727112	4727122	4727072

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	Pink	orange	red	white
1.5	3.5	100		14.4	20	4726081	4726091	4726041	4726051
1.5	3.5		2,000	14.4	20	4726081K	4726091K	4726041K	4726051K
2.5	4.3	100		24.0	32	4726082	4726092	4726042	4726052
2.5	4.3		1,500	24.0	32	4726082K	4726092K	4726042K	4726052K
4	4.9	100		38.4	45	4726083	4726093	4726043	4726053
4	4.9		1,000	38.4	45	4726083K	4726093K	4726043K	4726053K
6	5.5	100		57.6	65	4726084	4726094	4726044	4726054
6	5.5		750	57.6	65	4726084K	4726094K	4726044K	4726054K
10	7.1	100		96.0	110	4726085	4726095	4726045	4726055
16	8.4	100		153.6	170	4726086	4726096	4726046	4726056
25	10.6	100		240.0	290	4726087	4726097	4726047	4726057
35	12.1			336.0	380	4726088	4726098	4726048	4726058
50	14.4			480.0	530	4726089	4726099	4726049	4726059
70	16.6			672.0	750	4727081	4727091	4727041	4727051
95	18.8			912.0	1000	4727082	4727092	4727042	4727052

Control Cabinet Single Cores

Halogen free

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	m/box	Copper index (kg/km)	Weight (kg/km)	grey
1.5	3.5	100		14.4	20	4726061
1.5	3.5		2,000	14.4	20	4726061K
2.5	4.3	100		24.0	32	4726062
2.5	4.3		1,500	24.0	32	4726062K
4	4.9	100		38.4	45	4726063
4	4.9		1,000	38.4	45	4726063K
6	5.5	100		57.6	65	4726064
6	5.5		750	57.6	65	4726064K
10	7.1	100		96.0	110	4726065
16	8.4	100		153.6	170	4726066
25	10.6	100		240.0	290	4726067
35	12.1			336.0	380	4726068
50	14.4			480.0	530	4726069
70	16.6			672.0	750	4727061
95	18.8			912.0	1000	4727062

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Packaging size: Coil ≤ 30 kg, otherwise drum. Photographs are not to scale and do not represent detailed images of the respective products. *for conventional use, **for careful bending; "OD" = outer diameter

X05Z-K 110°C

Halogen-free to protect human life, the environment and valuable assets; high temperature resistance



Info

- Formerly: H05Z-K 110°C
- Halogen-free
- Maximum conductor temperature: +110 °C

Benefits

- Protection of human life and the environment thanks to the avoidance of the formation of acid in case of fire

Application range

- For wiring of lamps, devices, switchgear cabinets and distribution boxes
- For installation in tubes, on, in and under plaster as well as in closed installation ducts
- In building with a high density of people or valuable assets
- For use in dry rooms

Product features

- The insulation material is halogen-free and free of other materials which could release toxic gases in the event of fire

- Low amount of corrosive gases in the event of fire
- Low smokes/low smoke density in the event of fire according to IEC 61034
- Flame-retardant according to IEC 60332.1.2
- Bundled fire test (fire propagation) according to IEC 60332-3-24/EN 50266-2-4/EN 60332-3-24/VDE 0482-266-2-4/VDE 0482-332-3-24 (category C)

Approvals



- 110°C version is not harmonised (no HAR sign), but is VDE-tested and VDE-marked

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free

Technical data

- DIN VDE** Based on HD 22.9/VDE 0282-9
- Conductor stranding** Fine wire according to VDE 0295 Class 5/IEC 60228 Class 5
- Minimum bending radius** 4 x outer diameter (OD) for normal use; 2 x OD for cautious bending
- Nominal voltage** U₀/U: 300/500 V
- Test voltage** 2000 V AC
- Current rating** VDE 0298-4 HD 516/VDE 0298-300
- Temperature range** Fixed installation: -40°C to +110°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue
0.5	2.6	100	4.8	9	4710001	4710011	4710021	4710141
0.75	2.8	100	7.2	11	4710002	4710012	4710022	4710142
1	2.9	100	9.6	14	4710003	4710013	4710023	4710143

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	brown	yellow	green	violet
0.5	2.6	100	4.8	9	4710031	4710111	4710121	4710071
0.75	2.8	100	7.2	11	4710032	4710112	4710122	4710072
1	2.9	100	9.6	14	4710033	4710113	4710123	4710073

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Pink	orange	red	white
0.5	2.6	100	4.8	9	4710081	4710091	4710041	4710051
0.75	2.8	100	7.2	11	4710082	4710092	4710042	4710052
1	2.9	100	9.6	14	4710083	4710093	4710043	4710053

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	grey
0.5	2.6	100	4.8	9	4710061
0.75	2.8	100	7.2	11	4710062
1	2.9	100	9.6	14	4710063

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Packaging size: Coil ≤ 30 kg, otherwise drum. Photographs are not to scale and do not represent detailed images of the respective products. *for conventional use, **for careful bending; "OD" = outer diameter

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

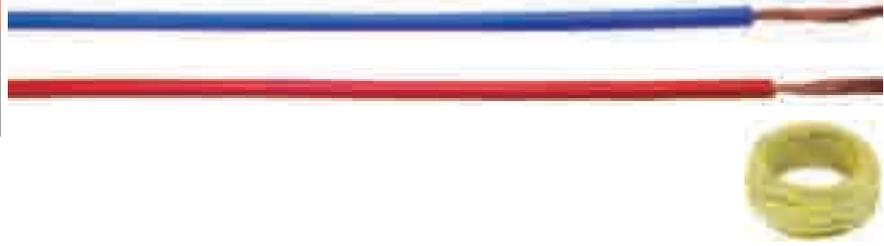
X07Z-K 110°C

Halogen-free to protect human life, the environment and valuable assets; high temperature resistance



Info

- Formerly: H07Z-K 110°C
- Halogen-free
- Maximum conductor temperature: +110 °C



Benefits

- Protection of human life and the environment thanks to the avoidance of the formation of acid in case of fire

Application range

- For wiring of lamps, devices, switchgear cabinets and distribution boxes
- For installation in tubes, on, in and under plaster as well as in closed installation ducts
- In building with a high density of people or valuable assets
- For use in dry rooms

Product features

- The insulation material is halogen-free and free of other materials which could release toxic gases in the event of fire

- Low amount of corrosive gases in the event of fire
- Low smokes/low smoke density in the event of fire according to IEC 61034
- Flame-retardant according to IEC 60332.1.2
- Bundled fire test (fire propagation) according to IEC 60332-3-24/EN 50266-2-4/EN 60332-3-24/VDE 0482-266-2-4/VDE 0482-332-3-24 (category C)

Approvals



- 110°C version is not harmonised (no HAR sign), but is VDE-tested and VDE-marked

Design

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free

Technical data

- DIN VDE** Based on HD 22.9/VDE 0282-9
- Conductor stranding** Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius** OD ≤ 8 mm: 4 x OD*/2 x OD** ; 8 < OD ≤ 12 mm: 5 x OD*/3 x OD** ; OD > 12 mm: 6 x OD*/4 x OD**
- Nominal voltage** U₀/U: 450/750 V
- Test voltage** 2500 V AC
- Current rating** VDE 0298-4 HD 516/VDE 0298-300
- Temperature range** Fixed installation: -40°C to +110°C

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Green/yellow	black	blue	Dark blue
1.5	3.5	100	14.4	20	4720001	4720011	4720021	4720141
2.5	4.3	100	24.0	30	4720002	4720012	4720022	4720142
4	4.9	100	38.4	45	4720003	4720013	4720023	4720143
6	5.5	100	58.0	65	4720004	4720014	4720024	4720144
10	7.1	100	96.0	110	4720005	4720015	4720025	4720145
16	8.4	100	154.0	170	4720006	4720016	4720026	4720146
25	10.6	100	240.0	290	4720007	4720017	4720027	
35	12.1		336.0	400	4720008	4720018	4720028	
50	14.4		480.0	550	4720009	4720019		
70	16.6		672.0	770	4721001	4721011		
95	18.8		912.0	1160		4721012		

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	brown	yellow	green	violet
1.5	3.5	100	14.4	20	4720031	4720111	4720121	4720071
2.5	4.3	100	24.0	30	4720032	4720112	4720122	4720072
4	4.9	100	38.4	45	4720033		4720123	4720073
6	5.5	100	58.0	65	4720034	4720114	4720124	
10	7.1	100	96.0	110	4720035			
16	8.4	100	154.0	170	4720036			

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	Pink	orange	red	white
1.5	3.5	100	14.4	20	4720081	4720091	4720041	4720051
2.5	4.3	100	24.0	30	4720082	4720092	4720042	4720052
4	4.9	100	38.4	45	4720083	4720093	4720043	4720053
6	5.5	100	58.0	65	4720084	4720094	4720044	4720054
10	7.1	100	96.0	110	4720085	4720095	4720045	4720055
16	8.4	100	154.0	170	4720086	4720096	4720046	4720056
25	10.6	100	240.0	290	4720087	4720097	4720047	
35	12.1		336.0	400	4720088	4720098	4720048	
50	14.4		480.0	550	4720089	4720099		
70	16.6		672.0	770	4721081	4721091		
95	18.8		912.0	1160	4721082	4721092		

Conductor cross-section (mm ²)	Outer diameter (mm)	m/coil	Copper index (kg/km)	Weight (kg/km)	grey
1.5	3.5	100	14.4	20	4720061
2.5	4.3	100	24.0	30	4720062
4	4.9	100	38.4	45	4720063
6	5.5	100	58.0	65	4720064
10	7.1	100	96.0	110	4720065
16	8.4	100	154.0	170	4720066

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
 Packaging size: Coil ≤ 30 kg, otherwise drum
 Photographs are not to scale and do not represent detailed images of the respective products.
 *for conventional use, **for careful bending; *OD* = outer diameter

LiYCY

Screened, PVC-based wiring single core

Benefits

- Prevention of electromagnetic interference to other components

Application range

- Wiring of measuring instruments, switch cabinets, electrical components, transmitters and receivers
- In EMC-sensitive environments

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Strands of tinned-copper wires
- Core insulation: Based on PVC
- Tinned-copper braiding
- PVC-based outer sheath, transparent

Technical data



Peak operating voltage
350 V (not for power transmission)



Based on
VDE 0812



Specific insulation resistance
10 GOhm x cm



Test voltage
800 V



Temperature range
Occasional flexing: -5 °C to +70 °C
Fixed installation:
-30 °C to +80 °C

Article number	Conductor cross-section (mm ²)	Number of wires x wire-Ø (mm)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4530101	0.14	18 x 0.10	2.6	7.0	13
4530102	0.25	14 x 0.15	3.1	9.0	18
4530103	0.5	16 x 0.20	3.4	15.0	20
4530104	0.75	24 x 0.20	3.7	18.0	31
4530105	1	32 x 0.20	4.5	25.0	35.92
4530106	1.5	30 x 0.25	4.9	30.0	39
4530107	2.5	50 x 0.25	5.8	35.0	55.3

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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
Photographs are not to scale and do not represent detailed images of the respective products.

Li2YCY

Low-capacitance, screened wiring single-core with PVC-based outer sheath

Benefits

- Prevention of electromagnetic interference to other components

Application range

- Wiring of measuring instruments, switch cabinets, electrical components, transmitters and receivers
- In EMC-sensitive environments

Product features

- Flame-retardant according to IEC 60332.1.2
- Low cable capacitance, short signal transmission time

Approvals



Design

- Strands of tinned-copper wires
- Core insulation: PE
- Wrapped screening made from tinned copper wire
- PVC-based outer sheath, transparent

Technical data



Peak operating voltage
500 V (not for power applications)



Based on
VDE 0812



Specific insulation resistance
2 GOhm x cm



Test voltage
1200 V



Temperature range
Occasional flexing: -5 °C to +70 °C
Fixed installation:
-30 °C to +80 °C

Article number	Conductor cross-section (mm ²)	Number of wires x wire-Ø (mm)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4550115	0.14	18 x 0.10	2.1	7.0	10
4550116	0.25	14 x 0.15	2.3	9.0	15
4550117	0.5	16 x 0.20	2.9	15.0	19.5
4550118	0.75	24 x 0.20	3.1	18.0	28
4550119	1	32 x 0.20	3.3	25.0	30

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to 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
Photographs are not to scale and do not represent detailed images of the respective products.

Li5YC5Y

Single core, silvered copper braid + screen, advanced chemical and temperature resistance (PTFE)

Benefits

- Prevention of electromagnetic interference to other components

Application range

- Wiring of measuring instruments, switch cabinets, electrical components, transmitters and receivers
- In EMC-sensitive environments

Product features

- Flame-retardant according to IEC 60332.1.2
- High chemical resistance
- High temperature resistance

Approvals



Design

- Strands of silver-plated copper wires
- PTFE core insulation
- Screening: wrapped with braided silver-plated, soft-annealed copper wires
- PTFE outer sheath, white

Technical data

- Peak operating voltage**
600 V (not for power applications)
- Based on**
VDE 0881
- Specific insulation resistance**
20 GOhm x cm
- Test voltage**
1200 V
- Temperature range**
Fixed installation: -190°C to +260°C

Article number	Conductor cross-section AWG	Number of wires x wire-Ø (mm)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4550120	24 / AWG 24 (7)	7 x 0.20	2.3	9.6	11
4550114	20 / AWG 20 (19)	19 x 0.20	2.7	14.9	22.2

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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
 Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® STATIC CY black

Closely screened, doubly insulated PVC single core for fixed installation



Info

- An alternative to single-core NYY with overall braiding used as EMC-relevant screening
- EMC-optimised

Benefits

- Cost-effective, double-insulated/sheathed single-core cable for fixed, unprotected installation indoors or outdoors, at most occasional flexing taking into account the higher minimum bending radii of 12.5 x outer cable diameter
- High degree of screening enables a very good EMC performance
- No additional protection such as a closed cable duct or protective conduit is required for installation

Application range

- Very suitable for power circuits as an external connection or for the internal wirings in electric and electronic equipment
- In dry or damp interiors with low mechanical stress conditions
- Can be used indoors as a connecting cable to the inverter in the photovoltaic sector
- Outdoor use is possible within the indicated operating temperature range

Approvals



Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Non-woven wrapping
- Tinned-copper braiding
- PVC-based outer sheath

Technical data

- Specific insulation resistance**
> 20 GΩm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Fixed installation: 6 x outer diameter
Occasional flexing: 12.5 x outer diameter
- Nominal voltage**
U_i/U: 600/1000 V
- Test voltage**
Core/screen: 2000 V
- Temperature range**
Fixed installation: -40 °C to +80 °C
Occasional flexing: -30 °C to +70 °C

Article number	Conductor cross-section (mm ²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4600023	16	10.3	177.0	275
4600024	25	12.7	267.0	396
4600025	35	14.3	384.0	542
4600026	50	16.9	537.0	752
4600027	70	18.7	763.0	1004
4600028	95	21.7	1,012.0	1368
4600029	120	24.7	1,264.0	1719

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to 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, otherwise drum
 Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
 Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- KS 20 cable shears refer to page 904

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ACCESSORIES
APPENDIX

NYM-J

Standard cable for plaster, brickwork and immovable concrete



Info

- **Standard cable for plaster and brickwork**

Application range

- For installation on or under the plaster
- In bricks and concrete, except direct embedding in vibrated or compressed concrete
- In dry, damp or wet interiors
- Also suitable for outdoor use if protected against direct sunlight

Product features

- Flame-retardant according to IEC 60332.1.2

Approvals



Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- Filling compound over the core assembly
- PVC-based outer sheath

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Approvals**
VDE 0250 Part 204
- Conductor stranding**
Single or multi-wire
- Minimum bending radius**
Fixed installation: 4 x outer diameter
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Protective conductor**
“-J” in NYM-J/Dimension with “G”: With protection earth PE conductor
“-O” in NYM-O/Dimension with “X”: No protection earth PE conductor
- Temperature range**
During installation: +5°C to +60°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600008	1 G 2.5	6.0	24.0	60
1600009	1 G 4	6.7	38.0	85
1600010	1 G 6	7.2	58.0	105
1600011	1 G 10	8.6	96.0	160
1600012	1 G 16	9.6	154.0	220
16000003	3 G 1.5	8.4	43.0	120
16000013	4 G 1.5	9.2	58.0	150
16000023	5 G 1.5	9.9	72.0	175
1600003	7 G 1.5	11.6	101.0	235
16000213	3 G 2.5	9.6	72.0	170
16000053	4 G 2.5	10.6	96.0	210
16000063	5 G 2.5	11.5	120.0	290
1600071	7 G 2.5	13.7	168.0	380
16010223	3 G 4	11.3	115.0	250
16000313	4 G 4	12.7	154.0	315
16000513	5 G 4	14.0	192.0	370
16010233	3 G 6	12.8	173.0	335
16000323	4 G 6	13.8	230.0	410
16000523	5 G 6	15.5	288.0	500
16000333	4 G 10	18.0	384.0	680
16000533	5 G 10	19.5	480.0	810
16000543	5 G 16	23.0	768.0	1200
16000353	4 G 25	26.0	960.0	1500
16000553	5 G 25	28.0	1,200.0	1800

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- NYY-J, NYY-O refer to page 217
- (N)HXMH refer to page 216

Accessories

- STAR STRIP stripping tool refer to page 906
- KS 20 cable shears refer to page 904

(N)HXMH

Halogen-free; for plaster, bricks, concrete; at high density of people and valuable assets



Info

- Halogen-free alternative to the PVC installation cable NYM

Application range

- For installation on or under the plaster
- In bricks and concrete, except direct embedding in vibrated or compressed concrete
- In dry, damp or wet interiors
- For buildings or industrial plants with a high density of people or valuable assets

Product features

- Due to the use of halogen-free materials, the formation of toxic dioxins and furanes is considerably reduced in the event of a fire
- Minimizes damages to buildings and equipments that are caused by acidic fumes produced during combustion
- Flame-retardant according to IEC 60332.1.2
- No flame-propagation according to IEC 60332-3-24

Approvals



Design

- Strands of bare copper wires
- Core insulation: PE
- Filling compound over the core assembly
- Outer sheath: halogen-free polymer

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers



Based on

VDE 0250 Part 214



Conductor stranding

Single or multi-wire



Minimum bending radius

Fixed installation: 4 x outer diameter



Nominal voltage

U₀/U: 300/500 V



Test voltage

2000 V



Protective conductor

G = with GN-YE protective conductor
X = without protective conductor



Temperature range

Maximum conductor temperature: +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
16020003	3 G 1.5	8.5	43.2	120
16020013	4 G 1.5	9.3	58.0	145
16020023	5 G 1.5	10.0	72.0	170
1602003	7 G 1.5	10.8	101.0	210
16020103	3 G 2.5	9.4	72.0	160
16020123	5 G 2.5	11.0	120.0	230

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

Copper price basis: EUR 150/100kg. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

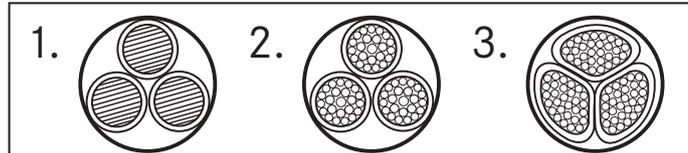
- NYM-J refer to page 215
- ÖLFLEX® CLASSIC 130 H refer to page 57

Accessories

- STAR STRIP stripping tool refer to page 906

NYY-J, NYO

Fixed installation, direct burial; PVC cable with different application areas



Info

- 1. re = round conductor, single-wire;
- 2. rm = round conductor, multi-wire;
- 3. sm = sector-shaped conductor

Application range

- Power and control cable for fixed installation in the following applications:
- For indoor and outdoor use
- Burial without additional, suitable underground protection according to VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial: normal minimum installation depth 0.6 m, but at least 0.8 m under roads
- In concrete with a temperature below the maximum cable operating temperature of +70 °C according to the VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial
- In water: no longer than 2 weeks at a time, maximum submersion depth 10 metres, only in static water/bodies of water without shipping traffic

Product features

- Flame-retardant according to IEC 60332.1.2
- Current rating according to HD 603/VDE 0276-603, Part 3-G, Table 14 (buried at +20 °C ground temperature according to HD 603/VDE 0276-603, Part 3-G, point 5) for routing underground and Table 15 (in the air at an air temperature of +30 °C according to HD 603/VDE 0276-603, Part 3-G, point 5) when used outdoors; but always taking into consideration corrections/reductions to the current rating that may be necessary according to VDE 0298-4, and VDE 0298-4 (also refer to the catalogue appendix T 12) for installation in and on buildings

Approvals



Design

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”: r = round conductor form; s = sectorial conductor form; e = single-wire conductor (wire = conductor)/braided conductor class 1 according to IEC 60228/VDE 0295 for fixed, static applications; m = multi-wire conductor/braided conductor class 2 according to IEC 60228/VDE 0295 for fixed, static applications, but with a slightly lower minimum bending factor
- Core insulation: Based on PVC
- Filling compound over the core assembly
- PVC-based outer sheath

Technical data

	Core identification code Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9 From 6 cores: black with white numbers
	Approvals HD 603/VDE 0276-603 (for 1 to 5 cores) HD 627/VDE 0276-627 (as from 7 cores)
	Conductor stranding Single or multi-wire
	Minimum bending radius Single-core: 15 x outer diameter Multi-core: 12 x outer diameter
	Nominal voltage U ₀ /U: 0.6/1.0 kV
	Test voltage 4000 V
	Temperature range During installation: -5 °C to +50 °C Fixed installation: -40 °C to +70 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NYY-J				
1550030	1 x 25rm	13.0	240.0	380
1550038	1 x 35rm	14.0	336.0	447
1550032	1 x 50rm	15.0	480.0	650
1550033	1 x 70rm	17.0	672.0	864
1550037	1 x 185rm	26.0	1,776.0	2000
15500013	3 x 1,5re	12.0	43.0	223
15500023	4 x 1,5re	13.0	58.0	256
15500033	5 x 1,5re	14.0	72.0	293
1550004	7 x 1,5re	15.0	101.0	360
1550005	10 x 1,5re	18.0	144.0	520
1550006	12 x 1,5re	19.0	173.0	560
1550084	14 x 1,5re	20.0	202.0	620
1550007	16 x 1,5re	21.0	230.0	680
1550008	19 x 1,5re	22.0	274.0	760
1550009	24 x 1,5re	24.0	346.0	900
1550086	30 x 1,5re	26.0	432.0	1100
15500103	3 x 2,5re	13.0	72.0	272
15500113	4 x 2,5re	14.0	96.0	316
15500123	5 x 2,5re	15.0	120.0	323
1550013	7 x 2,5re	16.0	168.0	450
1550090	10 x 2,5re	20.0	240.0	630
1550091	12 x 2,5re	20.0	288.0	680
1550092	14 x 2,5re	21.0	336.0	790
1550094	19 x 2,5re	23.0	456.0	990

Building Installation

Cables for direct burial

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1550096	24 x 2,5re	26.0	576.0	1300
1550097	30 x 2,5re	28.0	720.0	1400
15500583	3 x 4re	15.0	115.0	373
15500203	4 x 4re	16.0	154.0	439
15500263	5 x 4re	17.0	192.0	510
15500593	3 x 6re	16.0	173.0	466
15500213	4 x 6re	17.0	230.0	547
15500273	5 x 6re	19.0	288.0	640
15500603	3 x 10re	18.0	288.0	629
15500223	4 x 10re	19.0	384.0	743
15500823	5 x 10re	21.0	480.0	899
15500613	3 x 16re	20.0	461.0	850
15500233	4 x 16re	22.0	614.0	1039
15500833	5 x 16re	23.0	768.0	1240
15500713	3 x 25rm/16re	25.0	874.0	1595
15500243	4 x 25rm	27.0	960.0	1620
15500153	3 x 35sm/16re	27.0	1,162.0	1718
15500753	4 x 35sm	27.0	1,344.0	1916
15500163	3 x 50sm/25rm	31.0	1,680.0	2383
15500253	4 x 50sm	31.0	1,920.0	2639
15500173	3 x 70sm/35sm	33.0	2,352.0	3196
15500763	4 x 70sm	35.0	2,688.0	3576
15500183	3 x 95sm/50sm	38.0	3,216.0	4271
15500773	4 x 95sm	40.0	3,648.0	4746
15500723	3 x 120sm/70sm	41.0	4,128.0	5281
15500783	4 x 120sm	43.0	4,608.0	5813
15500733	3 x 150sm/70sm	46.0	4,992.0	6408
15500793	4 x 150sm	48.0	5,760.0	7263
15500743	3 x 185sm/95sm	50.0	6,240.0	7909
15500803	4 x 185sm	53.0	7,104.0	8905
15500193	3 x 240sm/120sm	57.0	8,064.0	10162
15500813	4 x 240sm	60.0	9,216.0	11430
NY-Y-O				
1550205	1 x 10re	10.0	96.0	176
1550206	1 x 16re	11.0	154.0	239
1550207	1 x 25rm	13.0	240.0	380
1550208	1 x 35rm	14.0	336.0	447
1550209	1 x 50rm	15.0	480.0	650
1550210	1 x 70rm	17.0	672.0	864
1550211	1 x 95rm	19.0	912.0	1132
1550212	1 x 120rm	21.0	1,152.0	1405
1550213	1 x 150rm	22.0	1,440.0	1710
1550214	1 x 185rm	24.0	1,776.0	2086
1550215	1 x 240rm	27.0	2,304.0	2669
1550216	1 x 300rm	30.0	2,880.0	3305
1550218	1 x 500rm	39.0	4,800.0	5400
15502003	2 x 1,5re	11.0	29.0	210
15502193	2 x 2,5re	12.0	48.0	250
15502203	2 x 4re	14.0	77.0	360
15502213	2 x 6re	15.0	115.0	400
15502223	2 x 10re	17.0	192.0	500
15502533	4 x 16re	22.0	614.0	1039
15502543	4 x 25rm	27.0	960.0	1620
15502563	4 x 50sm	31.0	1,920.0	2639
15502573	4 x 70sm	35.0	2,688.0	3576
15502583	4 x 95sm	40.0	3,648.0	4746

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

Copper price basis: excluding copper. Refer to 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 are not to scale and do not represent detailed images of the respective products.

■ Similar products

- NYCY refer to page 219
- NYCWY refer to page 220
- NAYY-J refer to page 221

■ Accessories

- V 1311 pressing pliers, hydraulic refer to page 930
- STAR STRIP stripping tool refer to page 906
- Cable shears KT 4 and KT 5 refer to page 904

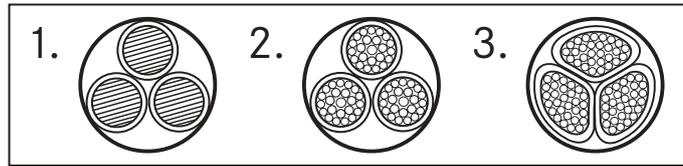
NYCY

Fixed installation, direct burial; PVC cable with concentric, helical copper conductor and cross-conductive spiral



Info

- 1. re = round conductor, single-wire;
- 2. rm = round conductor, multi-wire;
- 3. sm = sector-shaped conductor



Benefits

- Concentric conductor above all as PE

Application range

- Power and control cable for fixed installation in the following applications:
- For indoor and outdoor use
- Burial without additional, suitable underground protection according to VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial: normal minimum installation depth 0.6 m, but at least 0.8 m under roads
- In concrete with a temperature below the maximum cable operating temperature of +70 °C according to the VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial
- In water: no longer than 2 weeks at a time, maximum submersion depth 10 metres, only in static water/bodies of water without shipping traffic

Product features

- Flame-retardant according to IEC 60332.1.2
- Current rating according to HD 603/VDE 0276-603, Part 3-G, Table 14 (buried at +20 °C ground temperature according to HD 603/VDE 0276-603, Part 3-G, point 5) for routing underground and Table 15 (in the air at an air temperature of +30 °C according to HD 603/VDE 0276-603, Part 3-G, point 5) when used outdoors; but always taking into consideration corrections/reductions to the current rating that may be necessary according to VDE 0298-4, and VDE 0298-4 (also refer to the catalogue appendix T12) for installation in and on buildings

Approvals



Design

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”: r = round conductor form; s = sectorial conductor form; e = single-wire conductor (wire = conductor)/braided conductor class 1 according to IEC 60228/VDE 0295 for fixed, static applications; m = multi-wire conductor/braided conductor class 2 according to IEC 60228/VDE 0295 for fixed, static applications, but with a slightly lower minimum bending factor
- Core insulation: Based on PVC
- Filling compound over the core assembly
- Concentric, helical, outer conductor made of bare copper strands with inductance-reducing, cross-conductive copper bond counter spiral
- PVC-based outer sheath

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Approvals**
HD 603/VDE 0276-603 for NYCY with 3 or 4 cores and the relevant additional concentric protective conductor
HD 627/VDE 0276-627 for NYCY as from 7 cores and with the additional, concentric protective conductor
- Conductor stranding**
Single or multi-wire
- Minimum bending radius**
Fixed installation: 12 x outer diameter
- Nominal voltage**
U₀/U: 0.6/1.0 kV
- Test voltage**
4000 V
- Temperature range**
During installation: -5°C to +50°C
Fixed installation: -40°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
15503003	2 x 1,5re/1,5	14.0	52.0	245
15503103	3 x 1,5re/1,5	14.0	66.0	280
15503203	4 x 1,5re/1,5	15.0	81.0	302
1550330	7 x 1,5re/2,5	17.0	133.0	450
1550332	12 x 1,5re/2,5	20.0	205.0	580
1550337	24 x 1,5re/6	26.0	413.0	1100
15503113	3 x 2,5re/2,5	15.0	104.0	316
15503213	4 x 2,5re/2,5	16.0	128.0	360
1550350	7 x 2,5re/2,5	18.0	200.0	530
1550355	16 x 2,5re/6	23.0	451.0	950
15503223	4 x 4re/4	18.0	200.0	485
15503233	4 x 6re/6	19.0	297.0	616

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: excluding copper. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

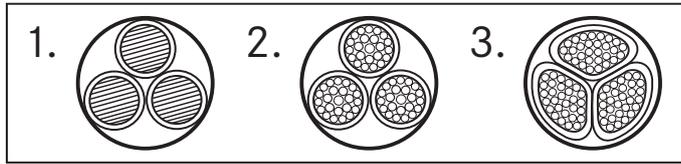
- NYJ-J, NYJ-O refer to page 217

Building Installation

Cables for direct burial

NYCWY

Fixed installation, direct burial; PVC cable with concentric, wave-like copper conductor and cross-conductive spiral



Info

- 1. re = round conductor, single-wire;
- 2. rm = round conductor, multi-wire;
- 3. sm = sector-shaped conductor

Benefits

- Concentric conductor above all as PE
- Easier connection due to the waveform of the concentric copper conductor

Application range

- Power and control cable for fixed installation in the following applications:
- For indoor and outdoor use
- Burial without additional, suitable underground protection according to VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial: normal minimum installation depth 0.6 m, but at least 0.8 m under roads
- In concrete with a temperature below the maximum cable operating temperature of +70 °C according to the VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial
- In water: no longer than 2 weeks at a time, maximum submersion depth 10 metres, only in static water/bodies of water without shipping traffic

Product features

- Flame-retardant according to IEC 60332.1.2

- Current rating according to HD 603/VDE 0276-603, Part 3-G, Table 14 (buried at +20 °C ground temperature according to HD 603/VDE 0276-603, Part 3-G, point 5) for routing underground and Table 15 (in the air at an air temperature of +30 °C according to HD 603/VDE 0276-603, Part 3-G, point 5) when used outdoors; but always taking into consideration corrections/reductions to the current rating that may be necessary according to VDE 0298-4, and VDE 0298-4 (also refer to the catalogue appendix T12) for installation in and on buildings

Approvals



Design

- Bare copper wire conductor
- Abbreviations "re", "rm", "se", "sm": r = round conductor form; s = sectorial conductor form; e = single-wire conductor (wire = conductor)/braided conductor class 1 according to IEC 60228/VDE 0295 for fixed, static applications; m = multi-wire conductor/braided conductor class 2 according to IEC 60228/VDE 0295 for fixed, static applications, but with a slightly lower minimum bending factor
- Core insulation: Based on PVC
- Filling compound over the core assembly
- Concentric, wave-like, outer conductor made of bare copper strands with inductance-reducing, cross-conductive copper bond counter spiral
- PVC-based outer sheath

Technical data



Core identification code

Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9



Approvals

HD 603/VDE 0276-603 for NYCWY with 3 or 4 cores and the relevant concentric protective conductor



Conductor stranding

Single or multi-wire



Minimum bending radius

Fixed installation: 12 x outer diameter



Nominal voltage

U_c/U: 0.6/1.0 kV



Test voltage

4000 V



Temperature range

During installation: -5 °C to +50 °C
Fixed installation: -40 °C to +70 °C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
15505003	2 x 10re/10	19.0	312.0	610
15505263	3 x 10re/10	20.0	408.0	775
15505403	4 x 10re/10	21.0	504.0	897
15505273	3 x 16re/16	22.0	643.0	1066
15505413	4 x 16re/16	24.0	796.0	1250
15505283	3 x 25rm/25	26.0	1,003.0	1584
15505423	4 x 25rm/16	28.0	1,142.0	1822
15505303	3 x 35sm/35	26.0	1,402.0	1710
15505433	4 x 35sm/16	29.0	1,526.0	2146
15505163	3 x 50sm/50	30.0	2,000.0	2368
15505443	4 x 50sm/25	33.0	2,203.0	3031
15505453	4 x 70sm/35	38.0	3,082.0	4056
15505143	3 x 95sm/50	38.0	3,296.0	4256
15505323	3 x 95sm/95	39.0	3,791.0	4600
15505463	4 x 95sm/50	43.0	4,208.0	5364
15505153	3 x 120sm/70	41.0	4,236.0	5314
15505473	4 x 120sm/70	46.0	5,388.0	6748
15505353	3 x 150sm/70	45.0	5,100.0	6344
15505483	4 x 150sm/70	51.0	6,540.0	8159
15505173	3 x 185sm/95	50.0	6,383.0	8054

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: excluding copper. Refer to 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 are not to scale and do not represent detailed images of the respective products.

Similar products

- NYJ-J, NYJ-O refer to page 217

Accessories

- V 1311 pressing pliers, hydraulic refer to page 930
- Cable shears KT 4 and KT 5 refer to page 904

NYY-J

Fixed installation, direct burial; PVC cable with solid aluminium conductors



Info

- 1. re = round conductor, single-wire;
- 2. rm = round conductor, multi-wire;
- 3. sm = sector-shaped conductor

Application range

- Power and control cable for fixed installation in the following applications:
- For indoor and outdoor use
- Burial without additional, suitable underground protection according to VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial: normal minimum installation depth 0.6 m, but at least 0.8 m under roads
- In concrete with a temperature below the maximum cable operating temperature of +70 °C according to the VDE standard HD 603/VDE 0276-603 - Part 3-G (point 4) governing PVC cables for direct burial
- In water: no longer than 2 weeks at a time, maximum submersion depth 10 metres, only in static water/bodies of water without shipping traffic

Product features

- Flame-retardant according to IEC 60332.1.2
- Maximum tensile strain for aluminium conductors during installation is 30 N/mm² according to HD 603/VDE 0276-603: Part 1 Appendix A.4.12 and Part 3-G point 4
- Current rating according to HD 603/VDE 0276-603, Part 3-G, Table 14 (buried at +20 °C ground temperature according to HD 603/VDE 0276-603, Part 3-G, point 5) for routing underground and Table 15 (in the air at an air temperature of +30 °C according to HD 603/VDE 0276-603, Part 3-G, point 5) when used outdoors; but always taking into consideration corrections/reductions to the current rating that may be necessary according to VDE 0298-4, and VDE 0298-4 (also refer to the catalogue appendix T12) for installation in and on buildings

Approvals



Design

- Aluminium conductor
- Abbreviations “re”, “rm”, “se”, “sm”: r = round conductor form; s = sectorial conductor form; e = single-wire conductor (wire = conductor)/braided conductor class 1 according to IEC 60228/VDE 0295 for fixed, static applications; m = multi-wire conductor/braided conductor class 2 according to IEC 60228/VDE 0295 for fixed, static applications, but with a slightly lower minimum bending factor
- Core insulation: Based on PVC
- Filling compound over the core assembly
- PVC-based outer sheath

Technical data

- Core identification code**
According to VDE 0293-308 (table T9)
- Approvals**
HD 603/VDE 0276-603
- Conductor stranding**
Single-wire
- Minimum bending radius**
Fixed installation: 12 x outer diameter
- Nominal voltage**
U₀/U: 0.6/1.0 kV
- Test voltage**
4000 V
- Temperature range**
During installation: -5°C to +50°C
Fixed installation: -30°C to +70°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Alu index (kg/km)	Weight (kg/km)
1552010	4 x 35re	28.2	406.0	1170
1552011	4 x 50se	29.8	580.0	1305
1552012	4 x 70se	34.2	812.0	1730
1552013	4 x 95se	38.6	1,102.0	2205
1552014	4 x 120se	41.9	1,392.0	2655
1552015	4 x 150se	45.6	1,740.0	3150
1552016	4 x 185se	50.8	2,146.0	3925
1552017	4 x 240se	59.6	2,784.0	4880

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Aluminium price basis: excludes aluminium. Refer to appendix T17 for the application and definition of “Metal price basis” and “Metal index”. Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- NYY-J, NYY-O refer to page 217

Accessories

- V 1311 pressing pliers, hydraulic refer to page 930
- STAR STRIP stripping tool refer to page 906
- Cable lugs and other connectors made of aluminium or bi-metal Al-Cu are available upon request

Assembled cables

Servo and power drive systems

Servo harnessing according to SIEMENS® 6FX5002-



Benefits

- This cable is designed according to SIEMENS® standard. 6FX5002 is the high-quality, yet more economical, version of the highly flexible 6FX8002 version.
- 100% compatible with SIEMENS® systems
- The oil-resistant PVC sheath enables usage in industrial environments
- For fixed installation.

Application range

- Plant engineering
- Servo drives and servo assemblies

Approvals



Design

- Design according to SIEMENS® standard 6FX 5002
- Outer sheath: special PVC compound, flame-retardant according to IEC 332.1,

Note

- Maximum cable length must comply with the specifications set by the manufacturer of the respective servo drives
- The technical data correspond to the cables used

Design

- Other versions and lengths can be delivered upon request.

Technical data



Approvals

Power cable:
VDE-registered
UL/CSA AWM Style 2570
Signal cables:
UL/CSA AWM style 2502



Conductor stranding

Extra-fine wire strand made of bare copper wires according to VDE 0295 class 6/IEC 60228 class 6



Minimum bending radius

Fixed installation: 5 x outer diameter
Flexible use: 12 x outer diameter



Nominal voltage

Signal cables:
- 30 V AC/DC (UL/CSA)
- 30 V AC (IEC)
Power cable:
- Power cores:
1000 V (UL/CSA)
600/1000 V (IEC)
- Control cores:
750 V (UL/CSA)
30 V AC (IEC)



Temperature range

Fixed installation: -20°C to +80°C
Flexible use: 0°C to +60°C

Article number	Length (m)	SIEMENS® assembly designation	SIEMENS® cable designation	Copper index kg/1.000 pieces	Other dimensions	PU
Assemblies for signal transmission systems						
74305559	10.0	6FX5002-2AD00-1BA0	6FX5008-1BD41	630.0	Other lengths are available upon request	1
74305659	10.0	6FX5002-2AD04-1BA0	6FX5008-1BD41	630.0	Other lengths are available upon request	1
74305759	10.0	6FX5002-2AH00-1BA0	6FX5008-1BD21	770.0	Other lengths are available upon request	1
74305859	10.0	6FX5002-2CA11-1BA0	6FX5008-1BD21	770.0	Other lengths are available upon request	1
74306059	10.0	6FX5002-2CA31-1BA0	6FX5008-1BD51	690.0	Other lengths are available upon request	1
74306159	10.0	6FX5002-2CA34-1BA0	6FX5008-1BD51	690.0	Other lengths are available upon request	1
74306659	10.0	6FX5002-2CF01-1BA0	6FX5008-1BD41	630.0	Other lengths are available upon request	1
74306759	10.0	6FX5002-2CF02-1BA0	6FX5008-1BD41	630.0	Other lengths are available upon request	1
74306859	10.0	6FX5002-2CH00-1BA0	6FX5008-1BD41	630.0	Other lengths are available upon request	1
74307059	10.0	6FX5002-2EQ10-1BA0	6FX5008-1BD51	690.0	Other lengths are available upon request	1
74307159	10.0	6FX5002-2EQ14-1BA0	6FX5008-1BD51	690.0	Other lengths are available upon request	1
70430150	10.0	6FX5002-2DC00-1BA0	6FX2008-1DC00	370.0	Other lengths are available upon request	1
70430069	10.0	6FX5002-2DC10-1BA0	6FX2008-1DC00	370.0	Other lengths are available upon request	1
70430151	10.0	6FX5002-2DC20-1BA0	6FX2008-1DC00	370.0	Other lengths are available upon request	1
Assemblies for motors without brake						
74307259	10.0	6FX5002-5CA01-1BA0	6FX5008-1BB11	880.0	Other lengths are available upon request	1
74307459	10.0	6FX5002-5CA05-1BA0	6FX5008-1BB11	880.0	Other lengths are available upon request	1
74308259	10.0	6FX5002-5CA31-1BA0	6FX5008-1BB21	1,320.0	Other lengths are available upon request	1
74308559	10.0	6FX5002-5CA41-1BA0	6FX5008-1BB31	1,950.0	Other lengths are available upon request	1
74308659	10.0	6FX5002-5CA51-1BA0	6FX5008-1BB41	2,800.0	Other lengths are available upon request	1
70430003	10.0	6FX5002-5CS01-1BA0	6FX5008-1BB11	880.0	Other lengths are available upon request	1
70430004	10.0	6FX5002-5CS11-1BA0	6FX5008-1BB21	1,940.0	Other lengths are available upon request	1
Assemblies for motors with brake						
74308959	10.0	6FX5002-5DA01-1BA0	6FX5008-1BA11	1,500.0	Other lengths are available upon request	1
74309159	10.0	6FX5002-5DA05-1BA0	6FX5008-1BA11	1,430.0	Other lengths are available upon request	1
74309960	10.0	6FX5002-5DA31-1BA0	6FX5008-1BA21	1,940.0	Other lengths are available upon request	1
74313361	10.0	6FX5002-5DA41-1BA0	6FX5008-1BA31	2,720.0	Other lengths are available upon request	1
74313661	10.0	6FX5002-5DA51-1BA0	6FX5008-1BA41	3,510.0	Other lengths are available upon request	1
70430001	10.0	6FX5002-5DS01-1BA0	6FX5008-1BA11	1,500.0	Other lengths are available upon request	1
70430002	10.0	6FX5002-5DS11-1BA0	6FX5008-1BA21	1,940.0	Other lengths are available upon request	1

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

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

Siemens part designations (6FX5002/5008, 6FX7002/7008, 6FX8002/8008) are registered trademarks of Siemens AG, and are listed for comparison purposes only. DESINA® is a registered trademark of the German Machine Tool Builders' Association.

Article numbers refer to genuine Lapp products.

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

Servo harnessing according to SIEMENS® 6FX 8002-



Benefits

- Highly flexible servomotor and sensor cables that are designed for use in power chains
- 100% compatible with SIEMENS® systems
- The oil-resistant PUR sheath enables usage in industrial environments

Application range

- Plant engineering
- Servo drives and servo assemblies

Product features

- Abrasion and cut-resistant, halogen-free, oil-resistant

Approvals



Design

- Extra-fine strand made of copper wires:
 - > Signal cables: tinned
 - > Power cables: bare
- Design according to SIEMENS® standard 6FX 8002
- PUR outer sheath
- Signal cables: green (RAL 6018)
- Servomotor cables: orange (RAL 2003)

Note

- Please comply with the assembly guidelines for cables in power chain systems.
- Maximum cable length must comply with the specifications set by the manufacturer of the respective servo drives
- The technical data correspond to the cables used

Design

- Other versions and lengths can be delivered upon request.

Technical data



Approvals

Power cable:
VDE-registered
UL AWM Style 21223
CSA AWM I/II, A/B 1000 V 80° FT 1
Sensor leads: UL/CSA AWM Style 20236



Minimum bending radius

Power cable:
Fixed: 4 x D
Dynamic:
1.5 mm² - 16 mm²: 7.5 x D
25 mm² - 50 mm²: 10 x D
Signal cable:
Fixed: 4 x D
Dynamic: 8 x D



Nominal voltage

Signal cables:
- 30 V AC/DC (UL/CSA)
- 30 V AC (IEC)
Power cable:
- Power cores:
600/1000 V (IEC)
1000 V (UL/CSA)
- Control cores:
250 V AC (IEC)
1000 V (UL/CSA)



Temperature range

Fixed installation: -50°C to +80°C
Flexing: -20°C to +60°C

Article number	Length (m)	SIEMENS® assembly designation	SIEMENS® cable designation	Copper index kg/1.000 pieces	Other dimensions	PU
Assemblies for signal transmission systems						
70301549	10.0	6FX8002-2AD00-1BA0	6FX8008-1BD41	660.0	Other lengths are available upon request	1
74303559	10.0	6FX8002-2AD04-1BA0	6FX8008-1BD41	660.0	Other lengths are available upon request	1
70389020	10.0	6FX8002-2AH00-1BA0	6FX8008-1BD41	770.0	Other lengths are available upon request	1
70301550	10.0	6FX8002-2CA11-1BA0	6FX8008-1BD21	770.0	Other lengths are available upon request	1
70301553	10.0	6FX8002-2CA31-1BA0	6FX8008-1BD51	860.0	Other lengths are available upon request	1
70301554	10.0	6FX8002-2CA34-1BA0	6FX8008-1BD51	860.0	Other lengths are available upon request	1
70301563	10.0	6FX8002-2CG00-1BA0	6FX8008-1BD21	770.0	Other lengths are available upon request	1
70301564	10.0	6FX8002-2CH00-1BA0	6FX8008-1BD41	660.0	Other lengths are available upon request	1
70301567	10.0	6FX8002-2EQ10-1BA0	6FX8008-1BD51	860.0	Other lengths are available upon request	1
70391522	10.0	6FX8002-2EQ14-1BA0	6FX8008-1BD51	860.0	Other lengths are available upon request	1
70301568	10.0	6FX8002-2CF01-1BA0	6FX8008-1BD41	660.0	Other lengths are available upon request	1
70301569	10.0	6FX8002-2CF02-1BA0	6FX8008-1BD41	660.0	Other lengths are available upon request	1
70301575	10.0	6FX8002-4AA21-1BA0	6FX8008-1BD61	540.0	Other lengths are available upon request	1
70430149	10.0	6FX8002-2DC00-1BA0	6FX8008-2DC00	410.0	Other lengths are available upon request	1
70431018	10.0	6FX8002-2DC10-1BA0	6FX8008-2DC00	410.0	Other lengths are available upon request	1
70430096	10.0	6FX8002-2DC20-1BA0	6FX8008-2DC00	410.0	Other lengths are available upon request	1
Assemblies for motors without brake						
70301578	10.0	6FX8002-5CA01-1BA0	6FX8008-1BB11	840.0	Other lengths are available upon request	1
70301601	10.0	6FX8002-5CA05-1BA0	6FX8008-1BB11	960.0	Other lengths are available upon request	1
70301583	10.0	6FX8002-5CA31-1BA0	6FX8008-1BB21	1,350.0	Other lengths are available upon request	1
70301585	10.0	6FX8002-5CA41-1BA0	6FX8008-1BB31	2,060.0	Other lengths are available upon request	1
70301586	10.0	6FX8002-5CA51-1BA0	6FX8008-1BB41	2,710.0	Other lengths are available upon request	1
70430007	10.0	6FX8002-5CS01-1BA0	6FX8008-1BB11	960.0	Other lengths are available upon request	1
70430008	10.0	6FX8002-5CS11-1BA0	6FX8008-1BB21	1,280.0	Other lengths are available upon request	1
Assemblies for motors with brake						
70301588	10.0	6FX8002-5DA01-1BA0	6FX8008-1BA11	1,430.0	Other lengths are available upon request	1
70301600	10.0	6FX8002-5DA05-1BA0	6FX8008-1BA11	1,430.0	Other lengths are available upon request	1
70301594	10.0	6FX8002-5DA31-1BA0	6FX8008-1BA21	1,860.0	Other lengths are available upon request	1
70301597	10.0	6FX8002-5DA41-1BA0	6FX8008-1BA31	2,610.0	Other lengths are available upon request	1
70301598	10.0	6FX8002-5DA51-1BA0	6FX8008-1BA41	3,300.0	Other lengths are available upon request	1
70430005	10.0	6FX8002-5DS01-1BA0	6FX8008-1BA11	1,430.0	Other lengths are available upon request	1
70430006	10.0	6FX8002-5DS11-1BA0	6FX8008-1BA21	1,860.0	Other lengths are available upon request	1

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

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

Siemens part designations (6FX5002/5008, 6FX7002/7008, 6FX8002/8008) are registered trademarks of Siemens AG, and are listed for comparison purposes only. DESINA® is a registered trademark of the German Machine Tool Builders' Association.

Article numbers refer to genuine Lapp products.

Other designs and lengths are available upon request.

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

Assembled cables

Servo and power drive systems

Servo harnessing according to INDRAMAT® IKG / RKL



Benefits

- Highly flexible servomotor cables that are designed for use in power chains.
- 100% compatible with INDRAMAT® systems
- The oil-resistant PUR sheath enables usage in industrial environments

Application range

- Plant engineering
- Servo drives and servo assemblies

Approvals



Design

- In accordance with Indramat standard IKG/ RKL

Note

- Please comply with the assembly guidelines for cables in power chain systems.
- Maximum cable length must comply with the specifications set by the manufacturer of the respective servo drives
- The technical data correspond to the cables used

Design

- Other versions and lengths can be delivered upon request.

Technical data



Approvals
UL/CSA AWM Style 20234



Minimum bending radius
Fixed installation: 6 x outer diameter
Flexible use: 10 x outer diameter



Nominal voltage
Power cores:
- 1000 V (UL/CSA)
- 600/1000 V (IEC)
Control cores:
250 V AC (IEC)
1000 V (UL/CSA)



Temperature range
Fixed installation: -50°C to +80°C
Flexible: -30°C to +60°C

Article number	Length (m)	INDRAMAT® ordering designation	Cable designation	Copper index kg/1.000 pieces	Other dimensions	PU
Assemblies to INDRAMAT standard IKG						
70345476	10.0	IKG4009-010	INK0653	1,700.0	Other lengths are available upon request	1
70345503	10.0	IKG4087-010	INK0603	3,060.0	Other lengths are available upon request	1
70345521	10.0	IKG4163-010	INK0605	5,650.0	Other lengths are available upon request	1
70345522	10.0	IKG4170-010	INK0605	5,650.0	Other lengths are available upon request	1
70345541	10.0	IKG4020-010	INK0653	1,700.0	Other lengths are available upon request	1
70345542	10.0	IKG4018-010	INK0653	1,700.0	Other lengths are available upon request	1
70345543	10.0	IKG4016-010	INK0653	1,700.0	Other lengths are available upon request	1
70345545	10.0	IKG4050-010	INK0650	1,890.0	Other lengths are available upon request	1
Assemblies to INDRAMAT standard RKL						
70410000	10.0	RKL4330-010	INK0606	6,700.0	Other lengths are available upon request	1
70392839	10.0	RKL4302-010	INK0653	1,700.0	Other lengths are available upon request	1
70410001	10.0	RKL4303-010	INK0653	1,700.0	Other lengths are available upon request	1

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

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

Indramat part designations (IKG, IKS, INK, INS, RKL and RKG) are registered trademarks of Bosch Rexroth AG, and are listed for comparison purposes only.

Article numbers refer to genuine Lapp products.

Other designs and lengths are available upon request.

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

Servo harnessing according to INDRAMAT® IKS / RKG



Benefits

- Highly flexible feedback cables that are designed for use in power chains
- 100% compatible with INDRAMAT® systems
- The oil-resistant PUR sheath enables usage in industrial environments

Application range

- Plant engineering
- Servo drives and servo assemblies

Approvals



Design

- In accordance with Indramat standard IKS/ RKG

Note

- Please comply with the assembly guidelines for cables in power chain systems.
- Maximum cable length must comply with the specifications set by the manufacturer of the respective servo drives
- The technical data correspond to the cables used

Design

- Other versions and lengths can be delivered upon request.

Technical data



Approvals
UL/CSA AWM Style 20236



Minimum bending radius
Fixed installation: 5 x outer diameter
Flexible use: 10 x outer diameter



Nominal voltage
300 V



Temperature range
Fixed installation: -30°C to +90°C
Flexible: -30°C to +80°C

Article number	Length (m)	INDRAMAT® ordering designation	Cable designation	Copper index kg/1.000 pieces	Other dimensions	PU
Assemblies to INDRAMAT standard IKS						
70335583	10.0	IKS4374-010	INK0448	600.0	Other lengths are available upon request	1
70335584	10.0	IKS4376-010	INK0448	700.0	Other lengths are available upon request	1
70335595	10.0	IKS4103-010	INK0448	700.0	Other lengths are available upon request	1
70335596	10.0	IKS4153-010	INK0448	700.0	Other lengths are available upon request	1
Assemblies to INDRAMAT standard RKG						
70392984	10.0	RKG4200-010	INK0448	600.0	Other lengths are available upon request	1
70410002	10.0	RKG4201-010	INK0448	600.0	Other lengths are available upon request	1

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

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Article numbers refer to genuine Lapp products.

Other designs and lengths are available upon request.

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Servo harnessing according to LENZE®



Benefits

- Servomotors, resolvers and encoder cables for fixed installation or application in power supply chains
- 100% compatible with specific drive systems
- Outer sheath makes them particularly suitable for use in industrial areas

Application range

- Plant engineering
- Servo drives and servo assemblies

Approvals



Design

- Design according to specific drive systems:
- Designs for fixed installation: PVC outer sheath, flame-retardant in accordance with IEC 332.1, UL/CSA-approved PVC core insulation.
- Designs for highly flexible use: oil-resistant PUR sheath in accordance with VDE472-803 Part B, flame-retardant in accordance with IEC 60332.1-2, TPE core insulation.

Note

- For the highly flexible version, please observe the assembly guidelines for cables in power chain systems.
- Maximum cable length must comply with the specifications set by the manufacturer of the respective servo drives
- The technical data correspond to the cables used

Design

- Other versions and lengths can be delivered upon request.

Technical data



Approvals

Resolver and encoder cable:
UL AWM Style 2464 for fixed installation versions, Style 21165 for highly flexible applications.
Motor cable:
UL AWM Style 2570 for fixed installation version; Style 20940 for high flexibility use.



Minimum bending radius

Fixed installation: 7.5 x outer diameter
Flexible use: 10 x outer diameter



Nominal voltage

Resolver and encoder cable:
30 V (VDE), 300 V (UL/CSA)
Resolver and encoder cable:
30 V (VDE), 300 V (UL/CSA)



Test voltage

Resolver and encoder cable:
1.5 kV
Motor cable:
- Power cores: 4 kV
- Control cores: 2 kV



Temperature range

Fixed installation: -25°C to +80°C
Flexible use: -5°C to +70°C

Article number	Length (m)	LENZE® item designation	Static	Highly flexible	Number of cores and mm² per conductor	Copper index kg/1.000 pieces	Other dimensions	PU
Servo cables								
74320320	10.0	EWLM-010GM-015	•		4 G 1,5+(2x0,5)	1,060.0	Other lengths are available upon request	1
74320499	10.0	EWLM-010GM-025	•		4 G 2,5+(2x0,5)	1,560.0	Other lengths are available upon request	1
74321272	10.0	EWLM-010GMS-015		•	4 G 1,5+(2x0,5)	1,060.0	Other lengths are available upon request	1
74321426	10.0	EWLM-010GMS-025		•	4 G 2,5+(2x0,5)	1,530.0	Other lengths are available upon request	1
70415002	10.0	EYP-0003-A-0100-M01-A00	•		4 G 1.5	1,060.0	Other lengths are available upon request	1
Fan cables								
74322480	10.0	EWLL-010GM	•		5 G 0.5	240.0	Other lengths are available upon request	1
74322629	10.0	EWLL-010GMS		•	5 G 0.5	240.0	Other lengths are available upon request	1
70415001	10.0	EYL-0001-V-0100L02-J02		•	5 G 0.75	360.0	Other lengths are available upon request	1
Resolver cables								
74320540	10.0	EWLR-010GM-T	•		3x (2x0,14) + 1x (2x0,5)	430.0	Other lengths are available upon request	1
74323073	10.0	EWLR-010GMS-T		•	3x (2x0,14) + 1x (2x0,5)	430.0	Other lengths are available upon request	1
70415005	10.0	EYF-0020-A-0100-F01-S04		•	3x (2x0,14) + 3x 0,14	370.0	Other lengths are available upon request	1
Encoder cables								
74323522	10.0	EWLE-010GM-T	•		4x (2x0,14) + 1x (2x1,0)	650.0	Other lengths are available upon request	1
74323672	10.0	EWLE-010GMS-T		•	4x (2x0,14) + 1x (2x1,0)	650.0	Other lengths are available upon request	1

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

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

Lenze® part designations (EWLM_, EWLR_, EWLE_, EWLL_, EYL and EYP) are registered trademarks of Lenze® AG, and are listed for comparison purposes only. DESINA® is a registered trademark of the German Machine Tool Builders' Association.

Article numbers refer to genuine Lapp products.

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

Assembled cables

Servo and power drive systems

Servo harnessing according to SEW®



Benefits

- Servomotors, resolvers and encoder cables for fixed installation or application in power supply chains
- Outer sheath makes them particularly suitable for use in industrial areas

Application range

- Plant engineering
- Servo drives and servo assemblies

Approvals



Design

- Design according to specific drive systems:
- Flame-retardant according to IEC 60332.1.2

Note

- For the highly flexible version, please observe the assembly guidelines for cables in power chain systems.
- Maximum cable length must comply with the specifications set by the manufacturer of the respective servo drives
- The technical data correspond to the cables used

Design

- Other versions and lengths can be delivered upon request.

Technical data



Approvals

Power cable: UL AWM Style 2587



Minimum bending radius

Power cable occasional flexing:
15 x cable diameter
Signal cable for flexible installation:
15 x outer diameter



Nominal voltage

Power cable: power cores: IEC 750 V, UL 600 V
Signal cores: IEC 350 V, UL 600 V
Signal cable: 250 V



Test voltage

Power cable: 2 KV
Signal cable: 1.5 KV



Temperature range

Flexing power cable: -10 °C to +80 °C
Signal cable flexing: -5 °C to +70 °C

Article number	Length (m)	SEW item designation	Static	Highly flexible	Number of cores and mm ² per conductor	Copper index kg/1.000 pieces	Other dimensions	PU
Motor cables								
70430251	10.0	05904544	•		4G 1,5	880.0	Other lengths are available upon request	1
70430250	10.0	13324853	•		4G 1,5+3x1	1,510.0	Other lengths are available upon request	1
Assemblies for signal transmission systems								
70430249	10.0	13324535	•		6x2x0,25	695.0	Other lengths are available upon request	1
70430252	10.0	1995405		•	6x2x0,25	718.0	Other lengths are available upon request	1

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Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
SEW® is a registered trademark of SEW Eurodrive GmbH & Co KG, Ernst-Blickle Str. 42, D-76646 Bruchsal
Article numbers refer to genuine Lapp products.
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRUCK SPIRAL ABS



ÖLFLEX® TRUCK SPIRAL EBS



Application range

- These spiral cables are used to connect the tractor and trailer or semi-trailer
- 5-pin ABS connector system according to ISO 7638
- ADR/GGVS approval - also for transporting hazardous goods

Product features

- Designed according to ISO 4141 and ISO 6722
- Highest number of cycles in the flexural fatigue test
- High restoring forces
- Protection rating: IP69k

Design

ÖLFLEX® TRUCK SPIRAL ABS

- 5-pin: 2 x 4.0 mm² + 3 x 1.5 mm²
- Working length: 2,250 mm, Extension length: max. 4,000 mm
- Insulation for Economy: PP for core, PUR for outer sheath
Insulation for Classic: PP for core, TPE-E for outer sheath

ÖLFLEX® TRUCK SPIRAL EBS

- 7-pin.: 2 x 4.0 mm² + 3 x 1.5 mm² + 1 x (2 x 1.5 mm²)
- Working length: 2,250 mm, Extension length: max. 4,000 mm
- Insulation for Economy: PP for core, PUR for outer sheath
Insulation for Classic: PP for core, TPE-E for outer sheath

Technical data

	Core identification code ISO 4141-3
	In accordance with ISO 4141 part 1-4 and ISO 6722
	Insulation resistance 10 MOhm x km
	Conductor stranding Fine wire according to DIN/ISO 6722
	Test voltage 5 kV rms for at least 5 min.
	Temperature range Area of application, Class A

Article number	Article designation	Spiral length, extended (mm)	Outer sheath colour	Copper index kg/1.000 pieces	Weight (kg/1000 pieces)	PU
ÖLFLEX® TRUCK SPIRAL ABS 5-pin: 2 x 4.0 mm² + 3 x 1.5 mm²						
70274000	ÖLFLEX TRUCK SPIRAL ABS Economy 5-pin, 4 m	4,000	black	636.0	1800	1
70274001	ÖLFLEX TRUCK SPIRAL ABS Classic 5-pin, 4 m	4,000	black	648.0	1800	1
ÖLFLEX® TRUCK SPIRAL EBS 7-pin: 2x4.0mm² + 3x1.5mm² + 1x(2x1.5mm²)						
70274002	ÖLFLEX TRUCK SPIRAL EBS Economy 7-pin, 4m	4,000	black	785.0	2000	1
70274003	ÖLFLEX TRUCK SPIRAL EBS Classic 7-pin, 4m	4,000	black	804.0	2000	1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Assembled cables

TRUCK applications

ÖLFLEX® TRUCK SPIRAL 15-pole



ÖLFLEX® TRUCK SPIRAL 7-pole



■ **Application range**

ÖLFLEX® TRUCK SPIRAL 15-pole

- These spiral cables are used to connect the tractor and trailer or semi-trailer
- 15-pin connector system according to ISO 12098
- ADR/GGVS approval - also for transporting hazardous goods

ÖLFLEX® TRUCK SPIRAL 7-pole

- These spiral cables are used to connect the tractor and trailer or semi-trailer
- 7-pin connector system according to ISO 1185 (24N), according to ISO 3731 (24S)
- ADR/GGVS approval - also for transporting hazardous goods

■ **Product features**

- Designed according to ISO 4141 and ISO 6722
- Highest number of cycles in the flexural fatigue test
- High restoring forces
- Protection rating: IP69k

■ **Design**

ÖLFLEX® TRUCK SPIRAL 15-pole

- 15-pin: 3 x 2.5 mm² + 10 x 1.5 mm² + 1 x (2 x 1.5 mm²)
or
- 13-pin: 3 x 2.5 mm² + 8 x 1.5 mm² + 4 x 1.5 mm²
- Working length: 2,250 mm, Extension length: max. 4,000 mm
- Insulation for Economy: PP for core, PUR for outer sheath
Insulation for Classic: PP for core, TPE-E for outer sheath

ÖLFLEX® TRUCK SPIRAL 7-pole

- 7-pin.: 1 x 2.5 mm² + 6 x 1.5 mm²
- Working length: 2,250 mm, Extension length: max. 4,000 mm
- Insulation: PP for core, PUR for outer sheath

■ **Technical data**

	Core identification code ÖLFLEX® TRUCK SPIRAL 15-pole 15-pin white cores with black numbers acc. to DIN 72570 ÖLFLEX® TRUCK SPIRAL 7-pole ISO 4141-3
	In accordance with ISO 4141 part 1-4 and ISO 6722
	Insulation resistance 10 MOhm x km
	Conductor stranding Fine wire according to DIN/ISO 6722
	Test voltage 5 kV rms for at least 5 min.
	Temperature range Area of application, Class A

Article number	Article designation	Spiral length, extended (mm)	Outer sheath colour	Copper index kg/1.000 pieces	Weight (kg/1000 pieces)	PU
ÖLFLEX® TRUCK SPIRAL 15-pin						
70274004	ÖLFLEX TRUCK SPIRAL Economy 15-pin, 4m	4,000	black	1,298.0	2500	1
70274005	ÖLFLEX TRUCK SPIRAL Classic 15-pin, 4m	4,000	black	1,322.0	2500	1
70274006	ÖLFLEX TRUCK SPIRAL Classic 13-pin, 4m	4,000	black	1,322.0	2500	1
ÖLFLEX® TRUCK SPIRAL 7-pin						
70274007	ÖLFLEX TRUCK SPIRAL 24N Economy 7-pin, 4m	4,000	black	583.0	1300	1
70274008	ÖLFLEX TRUCK SPIRAL 24S Economy 7-pin, 4m	4,000	black	583.0	1300	1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX®
UNITRONIC®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
SILVYN®
FLEXIMARK®
ACCESSORIES
APPENDIX

TRUCK adapters and cables



TRUCK Cables for batterie-charging



Application range

TRUCK adapters and cables

- These spiral cables are used to connect the tractor and trailer or semi-trailer
- These adapters are necessary if the trailers are equipped with different connector systems (15-pin or 17-pin)

Product features

TRUCK adapters and cables

- Designed according to ISO 6722
- Highest number of cycles in the flexural fatigue test
- High restoring forces
- Protection rating: IP69k
- Short adapter: 15-pin plug (male contacts) to 2 x 7-pin receptacle (male contacts)

TRUCK Cables for batterie-charging

- Designed according to ISO 6722
- Connectors: 2-pin cable connector (male contacts) and 2-pin socket (female contacts)

Design

TRUCK adapters and cables

- 15-pin cable coupler (female contacts) to 2 x 7-pin cable connector (female contacts) 1 x 2.5 mm² + 6 x 1.5 mm², black
- Working length: 2,250 mm, Extension length: max. 4,000 mm
- Insulation: PP for core, PUR for outer sheath

TRUCK Cables for batterie-charging

- Working length: 3,500 mm
- 2 x 35 mm², black and red
- Insulation: PVC for core, PUR for outer sheath

Note

TRUCK adapters and cables

- Other lengths and cable-ends are available upon request

Technical data

	Core identification code TRUCK adapters and cables ISO 4141-3
	TRUCK adapters and cables In accordance with ISO 4141 part 1-4 and ISO 6722
	Insulation resistance TRUCK adapters and cables 10 MOhm x km
	Conductor stranding TRUCK adapters and cables Fine wire according to DIN/ISO 6722
	Test voltage TRUCK adapters and cables 5 kV rms for at least 5 min.
	Temperature range Area of application, Class A

Article number	Article designation	Outer sheath colour	Copper index kg/1.000 pieces	Weight (kg/ 1000 pieces)	PU
ÖLFLEX® TRUCK adapter cables					
70274009	ÖLFLEX® TRUCK SPIRAL Adapterwendel,4m	black	1,166.0	2100	1
70270251	TRUCK short adapter 15/7/7 24 V S/N				1
70270603	TRUCK receptacle 24 V/2-pin 50 ²				1
ÖLFLEX® TRUCK battery charging cables					
70270026	ÖLFLEX® TRUCK SPIRAL 2x35 PUR/PVC oSt/5,0	black-red	3,495.0	3994	1
70270602	TRUCK connector 24 V/2-pin 35 mm ²				1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.

Assembled cables

Spiralised

ÖLFLEX® SPIRAL 400 P

PUR spiral cable with increased chemical resistance



Info

- High resistance to benzols, benzines and other substances listed in Appendix T1

■ Benefits

- High restoring forces and extension lengths up to 3 times the unextended spiral length

■ Application range

- As control and power cables in machines
- Mechanical engineering
- Apparatus construction

■ Product features

- Resistant to microbes, hydrolysis and almost all mineral oils
- High chemical-resistance to benzols, benzines and other agents listed in the selection table in Appendix T1

■ Approvals



■ Design

- Fine-wire strand made of bare copper wires
- Core insulation: Special PVC P8/1
- Use of talcum
- Outer sheath made of special polyurethane
- Length of straight ends: 1st end = 200 mm, 2nd end = 600 mm
- Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

■ Technical data



Core identification code
Black with white numbers acc. to VDE 0293



Based on
Core: VDE 0812/0281
Outer sheath: VDE 0250/0282



Specific insulation resistance
> 20 GOhm x cm



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



Nominal voltage
U₀/U: 300/500 V



Test voltage
3000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Flexible use: +5°C to +50°C

Article number	Number of cores and mm ² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/1.000 pieces)
70002622	2 X 0.75	1,500	500	5.4	19.5	64.8
70002623	2 X 0.75	3,000	1,000	5.4	19.5	123.8
70002624	2 X 0.75	4,500	1,500	5.4	19.5	170.6
70002625	2 X 0.75	6,000	2,000	5.4	19.5	234.7
70002628	3 G 0.75	1,500	500	5.7	20.0	101.5
70002629	3 G 0.75	3,000	1,000	5.7	20.0	172.8
70002630	3 G 0.75	4,500	1,500	5.7	20.0	261.3
70002631	3 G 0.75	6,000	2,000	5.7	20.0	326.1
70002634	4 G 0.75	1,500	500	6.2	21.0	123.8
70002635	4 G 0.75	3,000	1,000	6.2	21.0	221.7
70002636	4 G 0.75	4,500	1,500	6.2	21.0	129.6
70002637	4 G 0.75	6,000	2,000	6.2	21.0	453.6
70002640	5 G 0.75	1,500	500	6.7	24.0	154.8
70002641	5 G 0.75	3,000	1,000	6.7	24.0	306.0
70002642	5 G 0.75	4,500	1,500	6.7	24.0	439.2
70002643	5 G 0.75	6,000	2,000	6.7	24.0	594.0
70002726	7 G 0.75	1,500	500	7.3	27.0	245.0
70002727	7 G 0.75	3,000	1,000	7.3	27.0	525.0
70002728	7 G 0.75	4,500	1,500	7.3	27.0	660.0
70002729	7 G 0.75	6,000	2,000	7.3	27.0	1,025.0
70002731	12 G 0.75	1,500	500	9.9	35.0	371.5
70002732	12 G 0.75	3,000	1,000	9.9	35.0	682.5
70002734	18 G 0.75	1,500	500	11.7	40.0	699.8
70002735	18 G 0.75	3,000	1,000	11.7	40.0	1,127.5
70002646	2 X 1	1,500	500	5.7	20.0	88.3
70002647	2 X 1	3,000	1,000	5.7	20.0	161.2
70002648	2 X 1	4,500	1,500	5.7	20.0	230.4
70002649	2 X 1	6,000	2,000	5.7	20.0	272.6
70002651	3 G 1	1,500	500	6.0	21.0	129.6
70002652	3 G 1	3,000	1,000	6.0	21.0	244.8
70002653	3 G 1	4,500	1,500	6.0	21.0	350.5
70002654	3 G 1	6,000	2,000	6.0	21.0	417.6
70002656	4 G 1	1,500	500	6.5	24.0	176.6
70002657	4 G 1	3,000	1,000	6.5	24.0	322.5
70002658	4 G 1	4,500	1,500	6.5	24.0	503.0
70002659	4 G 1	6,000	2,000	6.5	24.0	587.5
70002661	5 G 1	1,500	500	7.1	25.0	220.8
70002662	5 G 1	3,000	1,000	7.1	25.0	408.0
70002663	5 G 1	4,500	1,500	7.1	25.0	600.0
70002664	5 G 1	6,000	2,000	7.1	25.0	744.0
70002666	7 G 1	1,250	500	8.0	30.0	328.3
70002667	7 G 1	2,500	1,000	8.0	30.0	562.8
70002668	7 G 1	3,750	1,500	8.0	30.0	770.5
70002669	7 G 1	5,000	2,000	8.0	30.0	1,175.1
70002670	12 G 1	1,500	500	10.5	37.0	598.0
70002671	12 G 1	3,000	1,000	10.5	37.0	1,012.0
70002672	18 G 1	1,500	500	12.7	45.0	891.0
70002673	18 G 1	3,000	1,000	12.7	45.0	1,402.5

Article number	Number of cores and mm ² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/1.000 pieces)
70002681	2 X 1.5	1,500	500	6.3	23.0	142.1
70002682	2 X 1.5	3,000	1,000	6.3	23.0	266.8
70002683	2 X 1.5	4,500	1,500	6.3	23.0	379.9
70002684	2 X 1.5	6,000	2,000	6.3	23.0	493.0
70002687	3 G 1.5	1,500	500	6.7	24.0	210.7
70002688	3 G 1.5	3,000	1,000	6.7	24.0	365.5
70002689	3 G 1.5	4,500	1,500	6.7	24.0	498.8
70002690	3 G 1.5	6,000	2,000	6.7	24.0	662.2
70002699	5 G 1.5	1,250	500	8.1	30.0	338.4
70002700	5 G 1.5	2,500	1,000	8.1	30.0	597.6
70002701	5 G 1.5	3,750	1,500	8.1	30.0	864.0
70002702	5 G 1.5	5,000	2,000	8.1	30.0	1,173.6
70002705	7 G 1.5	1,250	500	8.9	31.0	454.5
70002706	7 G 1.5	2,500	1,000	8.9	31.0	808.0
70002707	7 G 1.5	3,750	1,500	8.9	31.0	1,111.0
70002708	7 G 1.5	5,000	2,000	8.9	31.0	1,504.9
70002709	12 G 1.5	1,500	500	12.0	46.0	968.8
70002710	12 G 1.5	3,000	1,000	12.0	46.0	1,660.8
70002711	18 G 1.5	1,500	500	13.4	52.0	1,261.4
70002712	18 G 1.5	3,000	1,000	13.4	52.0	2,261.0
70002716	3 G 2.5	1,250	500	8.1	28.5	338.4
70002717	3 G 2.5	2,500	1,000	8.1	28.5	640.8
70002718	3 G 2.5	3,750	1,500	8.1	28.5	885.6
70002719	3 G 2.5	5,000	2,000	8.1	28.5	1,072.8
70002721	5 G 2.5	1,250	500	10.0	37.0	624.0
70002722	5 G 2.5	2,500	1,000	10.0	37.0	1,068.0
70002723	5 G 2.5	3,750	1,500	10.0	37.0	1,489.2
70002724	5 G 2.5	5,000	2,000	10.0	37.0	1,980.0

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

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

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

Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

Similar products

- ÖLFLEX® SPIRAL 540 P refer to page 233

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654

Assembled cables

Spiralised

SPIRAL H07BQ-F BLACK

Black, robust PUR spiral cable with high recoiling forces



Info

- Black
- Heavy construction type, well-priced
- Outer sheath: PUR, with high recoiling forces

Benefits

- Robust
- Wide application range
- Cost-effective

Application range

- Construction of engines and appliances with flexible power connections as well as at dockyards
- Construction of machinery and powered doors
- Measurement and control technology
- Any commercial/industrial/agricultural facility: connection of tools, appliances and mobile motors
- Increased tensile and abrasion requirements, can be used in damp and wet environments (but no submersion)

Product features

- Black, robust outer PUR sheath
- High tensile strength and abrasion-resistance
- High restoring forces
- Resistant to microbes, solvents and certain fuels
- Hydrolysis-resistant

Approvals



- The spiralling modifies the properties of the longish, <HAR>-certified H07BQ-F cable (sold by the metre) such that certain technical requirements stipulated by the H07BQ-F standards are no longer complied with following spiralling. As a result, the <HAR> H07BQ-F design certification of the longish H07BQ-F cable, also identifiable on the spiral cable, is no longer valid in conjunction with the spiralled piece good design of the "SPIRAL H07BQ-F BLACK". This is a completely natural, logical consequence of the spiralling processing steps.

Design

- Tinned stranded copper wire of conductor class 5 according to IEC 60228/VDE 0295
- Core insulation: EI6 rubber according to HD 22.1/VDE 0282-1 & EN 50363-1/VDE 0207-363-1; coloured according to HD 308/VDE 0293-308; VDE and HAR marking of the unspiralled H07BQ-F (sold by the metre) as the basic material for the spiralling
- Use of talcum
- Black, outer PUR sheath made of TMPU according to HD 22.10/VDE 0282-10; marking "H07BQ-F ..."
- For the 4 standard solid lengths available, please see the article table below
- Radial outflow shape at cable ends - length of ends: 200 mm at the first end/600 mm at the other end
- Versions with other solid lengths, end lengths and end forms available on request

Technical data

	Core identification code Coloured according to VDE 0293-308 (HD 308)
	Based on HD 22.10 / VDE 0282-10 H07BQ-F
	Conductor stranding Fine wire according to IEC 60228/VDE 0295, class 5 tinned strands
	Minimum bending radius Flexible use: 12.5 x outer diameter
	Nominal voltage U ₀ /U: 450/750 V
	Test voltage 3000 V
	Protective conductor G = with GN-YE protective conductor
	Temperature range -25 °C to +50 °C (spiralled)

Article number	Number of cores and mm ² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/1.000 pieces)
70002750	3 G 1.5	1,500	500	9.0	31.0	207.3
70002751	3 G 1.5	3,000	1,000	9.0	31.0	371.5
70002752	3 G 1.5	4,500	1,500	9.0	31.0	535.6
70002753	3 G 1.5	6,000	2,000	9.0	31.0	699.8
70002754	4 G 1.5	1,500	500	10.0	38.0	305.2
70002755	4 G 1.5	3,000	1,000	10.0	38.0	547.2
70002756	4 G 1.5	4,500	1,500	10.0	38.0	789.1
70002757	4 G 1.5	6,000	2,000	10.0	38.0	1,031.0
70002758	5 G 1.5	1,500	500	11.0	40.0	367.2
70002759	5 G 1.5	3,000	1,000	11.0	40.0	655.2
70002760	5 G 1.5	4,500	1,500	11.0	40.0	936.0
70002761	5 G 1.5	6,000	2,000	11.0	40.0	1,231.2

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products. Each item is packed separately in a plastic bag. Versions with other solid lengths, end lengths and end forms available on request

Similar products

- ÖLFLEX® SPIRAL 400 P refer to page 230
- ÖLFLEX® SPIRAL 540 P refer to page 233

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654
- SKINTOP® BS refer to page 716
- SKINTOP® BS-M refer to page 657
- SKINTOP® BT refer to page 716
- SKINTOP® CLICK BS refer to page 658

ÖLFLEX® SPIRAL 540 P

Robust, halogen-free, flame-retardant PUR spiral cable with high restoring forces



Info

- High restoring forces
- Halogen-free
- VDE CABLE REGISTRATION currently pending

Benefits

- Extension lengths of up to 3.5 times the unextended spiral length, high recoiling forces
- Safety colour: yellow

Application range

- Harsh conditions
- Mechanical engineering
- Construction industry
- Medical equipment
- In damp interiors or outdoors

Product features

- Halogen-free
- Good resistance of the outer sheath to cutting and abrasion
- High resistance to oil, low temperatures, microbes and hydrolysis
- Special, flame-retardant polyurethane sheath compound

Approvals



Design

- Strands of tinned-copper wires
- Core insulation: TPE
- Outer sheath made of special polyurethane
- Length of straight ends: 1st end = 200 mm, 2nd end = 600 mm
- Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

Technical data

- Core identification code**
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9
From 6 cores: black with white numbers
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
- Nominal voltage**
0.75 - 1 mm²: U0/U: 300/500 Vac
As from 1.5 mm²: U0/U = 450/750 Vac
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexible use: -30°C to +50°C

Article number	Number of cores and mm² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/1.000 pieces)
U0/U: 300/500 V						
73220107	2 X 0.75	1,000	300	6.6	23.0	46.0
73220108	2 X 0.75	2,000	600	6.6	23.0	73.4
73220109	2 X 0.75	3,500	1,000	6.6	23.0	116.6
73220110	2 X 0.75	5,000	1,500	6.6	23.0	158.4
73220111	3 G 0.75	1,000	300	7.0	24.0	60.4
73220112	3 G 0.75	2,000	600	7.0	24.0	103.6
73220113	3 G 0.75	3,500	1,000	7.0	24.0	159.8
73220114	3 G 0.75	5,000	1,500	7.0	24.0	220.3
71220115	4 G 0.75	1,000	300	7.6	29.0	100.8
71220116	4 G 0.75	2,000	600	7.6	29.0	177.1
71220117	4 G 0.75	3,500	1,000	7.6	29.0	270.7
71220118	4 G 0.75	5,000	1,500	7.6	29.0	368.6
71220119	5 G 0.75	1,000	300	8.5	31.0	118.8
71220120	5 G 0.75	2,000	600	8.5	31.0	210.9
71220121	5 G 0.75	3,500	1,000	8.5	31.0	298.8
71220122	5 G 0.75	5,000	1,500	8.5	31.0	439.2
73220123	2 X 1	1,000	300	7.0	24.0	59.5
73220124	2 X 1	2,000	600	7.0	24.0	101.9
73220125	2 X 1	3,500	1,000	7.0	24.0	156.6
73220126	2 X 1	5,000	1,500	7.0	24.0	218.8
73220127	3 G 1	1,000	300	7.4	29.0	104.4
73220128	3 G 1	2,000	600	7.4	29.0	182.7
73220129	3 G 1	3,500	1,000	7.4	29.0	275.5
73220130	3 G 1	5,000	1,500	7.4	29.0	391.5
71220131	4 G 1	1,000	300	8.2	30.0	135.9
71220132	4 G 1	2,000	600	8.2	30.0	222.7
71220133	4 G 1	3,500	1,000	8.2	30.0	349.4
71220134	4 G 1	5,000	1,500	8.2	30.0	491.5
71220135	5 G 1	1,000	300	9.0	32.0	161.2
71220136	5 G 1	2,000	600	9.0	32.0	268.8
71220137	5 G 1	3,500	1,000	9.0	32.0	419.5
71220138	5 G 1	5,000	1,500	9.0	32.0	556.8
73220139	7 G 1	1,000	350	10.9	40.0	238.0
73220140	7 G 1	2,000	700	10.9	40.0	435.2
73220141	7 G 1	3,500	1,200	10.9	40.0	700.4
73220142	7 G 1	5,000	1,700	10.9	40.0	918.0
U0/U: 300/500 V						
73220143	2 X 1.5	1,000	300	8.4	31.0	100.3
73220144	2 X 1.5	2,000	600	8.4	31.0	169.9
73220145	2 X 1.5	3,500	1,000	8.4	31.0	262.7
73220146	2 X 1.5	5,000	1,500	8.4	31.0	378.7
73220147	3 G 1.5	1,000	300	8.9	32.0	145.3
73220148	3 G 1.5	2,000	600	8.9	32.0	232.2
73220149	3 G 1.5	3,500	1,000	8.9	32.0	365.5
73220150	3 G 1.5	5,000	1,500	8.9	32.0	516.0
71220151	5 G 1.5	1,000	350	10.9	40.0	281.5
71220152	5 G 1.5	2,000	700	10.9	40.0	446.4
71220153	5 G 1.5	3,500	1,200	10.9	40.0	779.0
71220154	5 G 1.5	5,000	1,700	10.9	40.0	1,072.0
73220155	7 G 1.5	1,000	350	13.5	52.0	383.8
73220156	7 G 1.5	2,000	700	13.5	52.0	676.7

Assembled cables

Spiralised

Article number	Number of cores and mm ² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/ 1.000 pieces)
73220157	7 G 1.5	3,500	1,200	13.5	52.0	1,153.4
73220158	7 G 1.5	5,000	1,700	13.5	52.0	1,588.7
73220159	3 G 2.5	1,000	350	10.6	40.0	273.6
73220160	3 G 2.5	2,000	700	10.6	40.0	460.8
73220161	3 G 2.5	3,500	1,200	10.6	40.0	770.4
73220162	3 G 2.5	5,000	1,700	10.6	40.0	1,022.4
71220163	5 G 2.5	1,000	350	13.4	51.0	498.0
71220164	5 G 2.5	2,000	700	13.4	51.0	867.6
71220165	5 G 2.5	3,500	1,200	13.4	51.0	1,380.0
71220166	5 G 2.5	5,000	1,700	13.4	51.0	1,884.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products. Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

- Similar products**
- ÖLFLEX® SPIRAL 400 P refer to page 230
 - ÖLFLEX® SPIRAL 540 P with angular, isolated ground plug refer to page 234

- Accessories**
- SKINTOP® CLICK / CLICK-R refer to page 654

ÖLFLEX® SPIRAL 540 P with angular, isolated ground plug

Robust spiral cable with high restoring forces and earthing-type plug



Info

- Robust
- High restoring forces
- With angular earthing-type plug

- Benefits**
- Extension lengths of up to 3.5 times the unextended spiral length, high recoiling forces
 - Safety colour: yellow

- Application range**
- Harsh conditions
 - Mechanical engineering
 - Construction industry
 - Medical equipment
 - In damp interiors or outdoors

- Product features**
- Good resistance of the outer sheath to cutting and abrasion
 - High resistance to oil, low temperatures, microbes and hydrolysis
 - Special, flame-retardant polyurethane sheath compound
 - 16-A connector with protection rating IP 20

- Approvals**
- CE
- The VDE marking approval (VDE type certification) refers to the connector

- Design**
- Cable: ÖLFLEX(R) SPIRAL 540 P based on ÖLFLEX(R) 540 P
 - Strands of tinned-copper wires
 - Core insulation: TPE
 - Outer sheath made of special polyurethane
 - Length of straight ends: 1st end = 200 mm with moulded angular earthing-type plug, 2nd end = 600 mm with 30 mm stripping
 - Other solid lengths, end lengths and end forms available on request
 - 2-pin, angular plug with twin earthed contact system, extruded

Technical data

Core identification code
HD 308/VDE 0293-308: 3-core with protective conductor

Approvals
Plug: DIN VDE 620-1/standard sheet DIN 49441 R2

Specific insulation resistance
> 20 GOhm x cm

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

Nominal voltage
U₀: 250 V ac

Test voltage
2000 V

Protective conductor
G = with GN-YE protective conductor

Temperature range
Flexible use: -30°C to +50°C

Article number	Number of cores and mm ² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/1.000 pieces)
73220852	3 G 0.75	1,000	300	7.0	24.0	70.1
73220853	3 G 0.75	2,000	600	7.0	24.0	122.8
73220854	3 G 0.75	3,500	1,000	7.0	24.0	193.2
73220855	3 G 1	1,000	300	7.4	29.0	110.0
73220856	3 G 1	2,000	600	7.4	29.0	196.7
73220863	3 G 1	3,500	1,000	7.4	29.0	312.3
73220860	3 G 1.5	1,000	300	8.9	32.0	148.6
73220861	3 G 1.5	2,000	600	8.9	32.0	262.8
73220862	3 G 1.5	3,500	1,000	8.9	32.0	415.1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. 1 piece in each polyester bag. Photographs are not to scale and do not represent detailed images of the respective products.

Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms (not necessarily VDE-registered) available on request. Please observe the safety information as per DIN VDE 0620-1, Plugs and socket-outlets for household and similar purposes - Part 1: General requirements, appendix E: "Installation only by persons with the relevant electrotechnical expertise and experience!"

- Similar products**
- ÖLFLEX® SPIRAL 540 P refer to page 233

UNITRONIC® SPIRAL

Spiral cable with outer PUR sheath and overall shielding for exact impulse transmission



Info

- Secure against electrical interferences

Benefits

- Overall screening prevents high frequency interference and guarantees accurate signal transmission
- Extended lengths of up to 4 times the unextended spiral length

Application range

- In measurement and control engineering
- Wherever screened cables with smallest dimensions are required

Product features

- Abrasion and cut-resistant
- Very high flexibility

Approvals



Design

- Strands of bare copper wires
- Core insulation: Based on PVC
- Screening: wrapped with braided copper wires
- Outer sheath: PUR compound
- Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

Technical data

- Core identification code**
DIN 47100
- Peak operating voltage**
250 V (not for power transmission)
- Specific insulation resistance**
> 10 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/
IEC 60228 class 6
- Test voltage**
1200 V
- Temperature range**
Flexible use: -5°C to +50°C

Article number	Number of cores and mm² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)	Copper index (kg/1.000 pieces)
73220200	2 x 0.14	400	100	4.0	15.0	16.5
73220201	2 x 0.14	800	200	4.0	15.0	23.8
73220202	2 x 0.14	1,200	300	4.0	15.0	29.7
73220203	2 x 0.14	1,600	400	4.0	15.0	36.9
73220204	2 x 0.14	2,000	500	4.0	15.0	48.0
73220205	3 x 0.14	400	100	4.2	18.0	21.0
73220206	3 x 0.14	800	200	4.2	18.0	30.8
73220207	3 x 0.14	1,200	300	4.2	18.0	43.5
73220208	3 x 0.14	1,600	400	4.2	18.0	54.8
73220209	3 x 0.14	2,000	500	4.2	18.0	63.8
73220210	4 x 0.14	400	100	4.4	19.0	23.4
73220211	4 x 0.14	800	200	4.4	19.0	33.6
73220212	4 x 0.14	1,200	300	4.4	19.0	45.8
73220213	4 x 0.14	1,600	400	4.4	19.0	58.6
73220214	4 x 0.14	2,000	500	4.4	19.0	67.2
73220215	5 x 0.14	400	100	5.1	20.0	24.4
73220216	5 x 0.14	800	200	5.1	20.0	38.1
73220217	5 x 0.14	1,200	300	5.1	20.0	50.4
73220218	5 x 0.14	1,600	400	5.1	20.0	60.4
73220219	5 x 0.14	2,000	500	5.1	20.0	72.0
73220220	6 x 0.14	400	100	5.4	21.0	31.1
73220221	6 x 0.14	800	200	5.4	21.0	44.8
73220222	6 x 0.14	1,200	300	5.4	21.0	56.3
73220223	6 x 0.14	1,600	400	5.4	21.0	77.9
73220224	6 x 0.14	2,000	500	5.4	21.0	73.9
73220230	12 x 0.14	400	100	7.0	27.0	56.4
73220231	12 x 0.14	800	200	7.0	27.0	95.2
73220232	12 x 0.14	1,200	300	7.0	27.0	118.1
73220233	12 x 0.14	1,600	400	7.0	27.0	161.0
73220234	12 x 0.14	2,000	500	7.0	27.0	179.2
73220235	18 x 0.14	400	100	7.8	29.0	75.1
73220236	18 x 0.14	800	200	7.8	29.0	110.5
73220237	18 x 0.14	1,200	300	7.8	29.0	150.2
73220238	18 x 0.14	1,600	400	7.8	29.0	198.9
73220239	18 x 0.14	2,000	500	7.8	29.0	221.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
 Photographs are not to scale and do not represent detailed images of the respective products.
 Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654

Assembled cables

Connection and extension cables

ÖLFLEX® PLUG H03VV-F Net Connection Cable

PVC net connection cable for electrical devices and machines



ÖLFLEX® PLUG H03VV-F Net Connection Cable



Info

- Other colours and designs are available upon request

■ Application range

- Electrical devices
- Appliances and machinery

■ Product features

- For additional information regarding international plugs, please refer to our cable configurator at www.lappkabel.de
- Apart from the cable related application restrictions to be paid attention to according to the application standard HD 516/VDE 0298-300 for this PVC cable H03VV-F, the fact that brighter outer sheath colours deviating from black significantly reduce the UV resistance of the outer sheath and, thus, the outdoor usability of the entire, finished cable has to be respected, too

■ Approvals



■ Design

- 1st end: Gated, rectangular earthing-type plug with double earthing contact
- 2nd end: 30 mm dismantled, with protection sleeves for the ends of the conductor
- Alternatively, on request: 1st end with moulded angular earthing-type plug with twin earthed contact, 2nd end with moulded, straight IEC coupling (see image)

■ Technical data

	Core identification code HD 308/VDE 0293-308: 3-core with protective conductor
	Approvals refer to above
	Conductor stranding Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
	Nominal voltage U ₀ : 250 V ac
	Test voltage 2000 V
	Protective conductor G = with GN-YE protective conductor
	Temperature range Flexible use: -5°C to +70°C

Article number	Number of cores and mm ² per conductor	Colour	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
1st end: moulded angular earthing-type plug with double earthed contact					
2nd end: 30 mm stripped, with conductor end sleeves					
70261130	3 G 0.75	black	5.4 - 6.8	1.5	32.4
70261131	3 G 0.75	black	5.4 - 6.8	2.0	43.2
70261132	3 G 0.75	black	5.4 - 6.8	3.0	64.8
70261136	3 G 0.75	grey	5.4 - 6.8	1.5	32.4
70261137	3 G 0.75	grey	5.4 - 6.8	2.0	43.2
70261138	3 G 0.75	grey	5.4 - 6.8	3.0	64.8
70261133	3 G 0.75	white	5.4 - 6.8	1.5	32.4
70261134	3 G 0.75	white	5.4 - 6.8	2.0	43.2
70261135	3 G 0.75	white	5.4 - 6.8	3.0	64.8

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

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

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

Please observe the safety information as per DIN VDE 0620-1, Plugs and socket-outlets for household and similar purposes - Part 1: General requirements, appendix E: "Installation only by persons with the relevant electrotechnical expertise and experience!"

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX

ÖLFLEX® PLUG H05VV-F Net Connection Cable

PVC net connection cable for electrical devices and machines



Info

- Other colours and designs are available upon request



ÖLFLEX® PLUG H05VV-F Net Connection Cable

Application range

- Electrical devices
- Appliances and machinery

Product features

- For additional information regarding international plugs, please refer to our cable configurator at www.lappkabel.de
- Apart from the cable related application restrictions to be paid attention to according to the application standard HD 516/VDE 0298-300 for this PVC cable H05VV-F, the fact that brighter outer sheath colours deviating from black significantly reduce the UV resistance of the outer sheath and, thus, the outdoor usability of the entire, finished cable at direct sun irradiation has to be respected, too

Approvals



Design

- 1st end: Gated, rectangular earthing-type plug with double earthing contact
- 2nd end: 30 mm dismantled, with protection sleeves for the ends of the conductor
- Alternatively
- 1st end: Gated, rectangular earthing-type plug with double earthing contact
- 2nd end: straight, 3-pin IEC coupling, moulded

Technical data

- Core identification code**
According to VDE 0293-308 (table T9)
- Approvals**
refer to above
- Conductor stranding**
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
- Nominal voltage**
U₀: 250 V ac
- Test voltage**
2000 V
- Protective conductor**
G = with GN-YE protective conductor
- Temperature range**
Flexible use: -5°C to +70°C

Article number	Number of cores and mm ² per conductor	Colour	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
1st end: moulded angular earthing-type plug with double earthed contact					
2nd end: straight, 3-pin C13 IEC coupling, moulded					
73222334	3 G 1	black	6.3 - 8.0	2.5	72.5
73222336	3 G 1	grey	6.3 - 8.0	2.5	72.5
73222381	3 G 1.5	grey	7.4 - 9.4	5.0	12.9
73222335	3 G 1	white	6.3 - 8.0	2.5	72.5
2nd end: rectangular, 3-pin C13 IEC coupling, moulded					
74320106	3 G 1.5	black	7.4 - 9.4	3.5	101.5
74320092	3 G 1.5	black	7.4 - 9.4	7.5	324.0
1st end: moulded angular earthing-type plug with double earthed contact					
2nd end: 30 mm stripped, with conductor end sleeves					
70261139	3 G 1	black	6.3 - 8.0	1.5	43.5
70261140	3 G 1	black	6.3 - 8.0	2.0	58.0
70261141	3 G 1	black	6.3 - 8.0	3.0	87.0
70261166	3 G 1	black	6.3 - 8.0	5.0	145.0
70261145	3 G 1	grey	6.3 - 8.0	1.5	43.5
70261146	3 G 1	grey	6.3 - 8.0	2.0	58.0
70261147	3 G 1	grey	6.3 - 8.0	3.0	87.0
70261143	3 G 1	white	6.3 - 8.0	2.0	58.0
70261144	3 G 1	white	6.3 - 8.0	3.0	87.0
70261148	3 G 1.5	black	7.4 - 9.4	1.5	64.5
70261149	3 G 1.5	black	7.4 - 9.4	2.0	86.0
70261150	3 G 1.5	black	7.4 - 9.4	3.0	129.0
70261160	3 G 1.5	black	7.4 - 9.4	5.0	215.0
70261185	3 G 1.5	grey	7.4 - 9.4	1.0	43.2
70261154	3 G 1.5	grey	7.4 - 9.4	1.5	64.5
70261155	3 G 1.5	grey	7.4 - 9.4	2.0	86.0
70261156	3 G 1.5	grey	7.4 - 9.4	3.0	129.0
70362272	3 G 1.5	grey	7.4 - 9.4	4.0	172.0
70261151	3 G 1.5	white	7.4 - 9.4	1.5	64.5
70261152	3 G 1.5	white	7.4 - 9.4	2.0	86.0
70261153	3 G 1.5	white	7.4 - 9.4	3.0	129.0
70261163	3 G 2.5	black	9.2 - 11.4	3.0	216.0

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

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

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

Please observe the safety information as per DIN VDE 0620-1, Plugs and socket-outlets for household and similar purposes - Part 1: General requirements, appendix E: "Installation only by persons with the relevant electrotechnical expertise and experience!"

Assembled cables

Connection and extension cables

ÖLFLEX® PLUG 540 P Connection Cable

Robust, VDE-registered connecting cable with DIN/VDE or international plugs



Info

- Available with international plugs
- Safety colour: yellow
- Images are for illustration purposes only

Benefits

- VDE cable registration: LAPP ÖLFLEX(R) 540 P, sold by the metre and assembled to size
- Safety colour: yellow
- VDE marking approval/VDE type certification for the straight central plug according to DIN/VDE in the item numbers table

- The VDE type certification/marketing approval refers to moulded DIN/VDE connectors. The related certifications can be found in the grey "Technical data" box
- The VDE registration refers to the "ÖLFLEX(R) 540 P" cable from U.I. Lapp GmbH used for these piece good assemblies

Application range

- Harsh conditions
- Mechanical engineering
- Construction industry
- Medical equipment
- In damp interiors or outdoors

Design

- Strands of tinned-copper wires
- Core insulation: TPE
- Outer sheath made of special polyurethane
- 1st end: Gated, straight contour or earthing-type plug
- 1st option for DIN/VDE connector with type certification: 2-core ÖLFLEX(R) 540 P cable in conjunction with 2-pin, straight, extruded, 16 A/250 Vac-to-ground DIN/VDE central contour plug without earthed contact according to DIN VDE 0620-1/DIN 49406-R and with plug protection rating IP 20
- 2nd alternative of DIN/VDE type certified plug: 3-core ÖLFLEX(R) 540 P cable in conjunction with 2-pole, straight, moulded, splash water protected, central, 16A/250Vac-to-ground, isolated ground DIN/VDE plug with double protection/earthing contact/pin system according to DIN VDE 0620-1/DIN 49441-R2/DIN 49441-2-AR2 and with plug protection type/category IP 44
- 2nd end: 30 mm dismantled, with protection sleeves for the ends of the conductor

Product features

- Good resistance of the outer sheath to cutting and abrasion
- High resistance to oil, low temperatures, microbes and hydrolysis
- Special, flame-retardant polyurethane sheath compound
- The products shown are also available for Switzerland, Australia, Denmark, Italy and the UK without the LAPP/ÖLFLEX name or LAPP certification on request. Please refer to our cable configuration tool, available online at www.lappkabel.de, for more details

Approvals



Technical data



Core identification code

According to VDE 0293-308 (table T9)



Approvals

Cable ÖLFLEX(R) 540 P: VDE reg. no. 6583 - 300/500 VAC up to 1.0 mm²; VDE reg. no. 6584 - 450/750 VAC as from 1.5 mm²
 Harnessed 2-pole cable with straight, moulded, central contour plug without protective/earthing contact/pins: Plug type certification and marking licence DIN VDE 0620-1/DIN 49406-R; Harnessed 3-pole cable with straight, moulded, splash water protected, central isolated ground plug with double/outline protection/earthing contact by means of ground pins: Plug type certification and marking licence DIN VDE 0620-1/DIN 49441-R2/DIN 49441-2-AR2 in conjunction with plug protection type/category IP 44



Specific insulation resistance

> 20 GOhm x cm



Conductor stranding

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



Minimum bending radius

Occasional flexing: 10 x outer diameter
 Fixed installation: 4 x outer diameter



Nominal voltage

U₀: 250 V ac



Test voltage

Assembly: 2000 V
 ÖLFLEX(R) 540 P: 3000 V



Protective conductor

G = with GN-YE protective conductor
 X = without protective conductor



Temperature range

Occasional flexing and fixed installation: -40 °C to +80 °C

Article number	Number of cores and mm ² per conductor	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
1st option for DIN/VDE connector with type certification: 2-core ÖLFLEX(R) 540 P cable in conjunction with 2-pin, straight, extruded, 16 A/250 Vac-to-ground DIN/VDE central contour plug without earthed contact according to DIN VDE 0620-1/DIN 49406-R and with plug protection rating IP 20				
73220842	2 X 1	7.0	2.0	38.4
73220843	2 X 1	7.0	3.5	67.2
73220844	2 X 1	7.0	5.0	96.0
73221558	2 X 1.5	8.4	2.0	58.0
73221559	2 X 1.5	8.4	3.0	101.5
73221560	2 X 1.5	8.4	5.0	145.0
2nd alternative of DIN/VDE type certified plug: 3-core ÖLFLEX(R) 540 P cable in conjunction with 2-pole, straight, moulded, splash water protected, central, 16A/250Vac-to-ground, isolated ground DIN/VDE plug with double protection/earthing contact/pin system according to DIN VDE 0620-1/DIN 49441-R2/DIN 49441-2-AR2 and with plug protection type/category IP 44				
73220846	3 G 0.75	7.0	2.0	43.2
73220847	3 G 0.75	7.0	3.5	75.6
73220848	3 G 0.75	7.0	5.0	108.0
73221561	3 G 1	7.4	2.0	58.0
73221562	3 G 1	7.4	3.5	101.5
73221563	3 G 1	7.4	5.0	145.0
73220849	3 G 1.5	8.9	2.0	86.0
73220850	3 G 1.5	8.9	3.5	150.6
73220851	3 G 1.5	8.9	5.0	215.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.

1 piece in each polyester bag

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

Please observe the safety information as per DIN VDE 0620-1, Plugs and socket-outlets for household and similar purposes - Part 1: General requirements, appendix E: "Installation only by persons with the relevant electrotechnical expertise and experience!"

Accessories

- SKINTOP® CLICK / CLICK-R refer to page 654

ÖLFLEX® PLUG Extension Cable 540 P safety yellow

Earthing-type extension cable with straight plug and coupling

Application range

- Mechanical engineering
- Construction industry
- Agricultural equipment
- In damp interiors or outdoors

Product features

- Other lengths, customised versions, cable types and plug versions are available upon request
- Customised printing is available upon request

Approvals



Design

- Mounted, straight earthing-type plug (16 amp., 250 V, solid rubber, colour: black) in accordance with DIN 49440/441, protection rating: IP 44
- Mounted, straight earthing-type coupling with rubber cover (16 A, 250 V, solid rubber, colour: black) in accordance with DIN 49440/441, protection rating: IP 44



Technical data

Nominal voltage
U₀: 250 V ac

Article number	Number of cores and mm ² per conductor	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
73222337	3 G 1.5	8.9	5.0	215.0
73222322	3 G 1.5	8.9	10.0	430.0
73222375	3 G 1.5	8.9	15.0	645.0
73222323	3 G 1.5	8.9	25.0	1,075.0
73222324	3 G 1.5	8.9	50.0	2,150.0
73222385	3 G 2.5	10.6	5.0	360.0
73222325	3 G 2.5	10.6	10.0	720.0
73222386	3 G 2.5	10.6	15.0	1,080.0
73222326	3 G 2.5	10.6	25.0	1,800.0
73222327	3 G 2.5	10.6	50.0	3,600.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® PLUG Extension Cable H07RN-F

Earthing-type extension cable with straight plug and coupling

Application range

- Mechanical engineering
- Construction industry
- Agricultural equipment
- In damp interiors or outdoors

Product features

- Other lengths, customised versions, cable types and plug versions are available upon request
- Customised printing is available upon request

Approvals



Design

- Mounted, straight earthing-type plug (16 amp., 250 V, solid rubber, colour: black) in accordance with DIN 49440/441, protection rating: IP 44
- Mounted, straight earthing-type coupling with rubber cover (16 A, 250 V, solid rubber, colour: black) in accordance with DIN 49440/441, protection rating: IP 44



Technical data

Nominal voltage
U₀: 250 V ac

Article number	Number of cores and mm ² per conductor	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
73222383	3 G 1.5	9.6 - 12.5	5.0	216.0
73222328	3 G 1.5	9.6 - 12.5	10.0	432.0
73222329	3 G 1.5	9.6 - 12.5	25.0	1,075.0
73222330	3 G 1.5	9.6 - 12.5	50.0	2,150.0
73222384	3 G 2.5	11.5 - 14.5	5.0	360.0
73222331	3 G 2.5	11.5 - 14.5	10.0	720.0
73222332	3 G 2.5	11.5 - 14.5	25.0	1,800.0
73222333	3 G 2.5	11.5 - 14.5	50.0	3,600.0

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

Assembled cables

Connection and extension cables

ÖLFLEX® PLUG CEE Connection/ Extension Cable without phase shifter
 H07RN-F-based connecting and extension cable for three-phase current



ÖLFLEX® PLUG CEE Connection/ Extension Cable without phase shifter



Info

- Formerly: ÖLFLEX PLUG CEE (400 V) Connection / Extension Cable

Application range

- For connections to any three-phase A.C. consumers
- Machines and systems on building sites
- Dry or damp rooms as well as outdoors taking into account HD 516/VDE 0298-300

Product features

- Also available with phase shifter (engine direction can be changed)
- Other dimensions, lengths, connectors, designs and customised versions are available upon request
- Customised printing is available upon request

Approvals



Design

- Mounted 5-pin CEE plug, 400 V, red, 6 o'clock in accordance with VDE 0623/EN 60309-2, splash-proof IP 44
- 80 mm stripped, with conductor end sleeves
- Mounted 5-pin CEE coupling, 400 V, red, 6 o'clock in accordance with VDE 0623/EN 60309-2, splash-proof IP 44

Technical data

	Core identification code According to VDE 0293-308 (table T9)
	Approvals H07RN-F VDE 0282 Part 4/HD 22.4
	Based on VDE 0282
	Specific insulation resistance 1 GOhm x cm
	Conductor stranding Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
	Minimum bending radius Flexible use: 15 x cable diameter
	Nominal voltage U ₀ /U: 450/750 V
	Test voltage 2500 V
	Temperature range Flexible use: -25°C to +60°C

Article number	Plug amps	Number of cores and mm ² per conductor	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
ÖLFLEX® PLUG CEE connection cable					
71222231	16	5 G 1.5	11.2 - 14.4	2.5	180.0
71222239	16	5 G 1.5	11.2 - 14.4	5.0	360.0
71222232	16	5 G 2.5	13.3 - 17.0	2.5	300.0
71222240	16	5 G 2.5	13.3 - 17.0	5.0	600.0
71222241	32	5 G 2.5	13.3 - 17.0	5.0	600.0
71222234	32	5 G 4	15.6 - 19.9	2.5	480.0
71222242	32	5 G 4	15.6 - 19.9	5.0	960.0
71222243	32	5 G 6	17.5 - 22.2	5.0	1,440.0
ÖLFLEX® PLUG CEE extension cable					
71222292	16	5 G 1.5	11.2 - 14.4	10.0	720.0
71222295	16	5 G 2.5	13.3 - 17.0	10.0	1,200.0
71222296	16	5 G 2.5	13.3 - 17.0	25.0	3,000.0
71222298	32	5 G 2.5	13.3 - 17.0	10.0	1,200.0
71222299	32	5 G 2.5	13.3 - 17.0	25.0	3,000.0
71222301	32	5 G 4	15.6 - 19.9	10.0	1,920.0
71222302	32	5 G 4	15.6 - 19.9	25.0	4,800.0
71222304	32	5 G 6	17.5 - 22.2	10.0	2,880.0
71222305	32	5 G 6	17.5 - 22.2	25.0	7,200.0

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

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

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

Please observe the safety information as per DIN VDE 0620-1, Plugs and socket-outlets for household and similar purposes - Part 1: General requirements, appendix E: "Installation only by persons with the relevant electrotechnical expertise and experience!"

ÖLFLEX® PLUG CEE Connection/ Extension Cable with phase shifter

H07RN-F-based connecting and extension cable for three-phase current



Info

- Formerly: ÖLFLEX PLUG CEE (400 V) Connection / Extension Cable



ÖLFLEX® PLUG CEE Connection/ Extension Cable with phase shifter

Application range

- For connections to any three-phase A.C. consumers
- Machines and systems on building sites
- Dry or damp rooms as well as outdoors taking into account HD 516/VDE 0298-300

Product features

- Also available with phase shifter (engine direction can be changed)
- Other dimensions, lengths, connectors, designs and customised versions are available upon request
- Customised printing is available upon request

Approvals



Design

- Mounted 5-pin CEE plug, 400 V, red, 6 o'clock in accordance with VDE 0623/EN 60309-2, splash-proof IP 44
- 80 mm stripped, with conductor end sleeves
- Mounted 5-pin CEE coupling, 400 V, red, 6 o'clock in accordance with VDE 0623/EN 60309-2, splash-proof IP 44

Technical data

- Core identification code**
According to VDE 0293-308 (table T9)
- Approvals**
H07RN-F
VDE 0282 Part 4/HD 22.4
- Based on**
VDE 0282
- Specific insulation resistance**
1 GOhm x cm
- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Minimum bending radius**
Flexible use: 15 x cable diameter
- Nominal voltage**
U₀/U: 450/750 V
- Test voltage**
2500 V
- Temperature range**
Flexible use: -25°C to +60°C

Article number	Plug amps	Number of cores and mm ² per conductor	Cable diameter (mm)	Length (m)	Copper index (kg/1.000 pieces)
71002837	16	5 G 1.5	11.2 - 14.4	3.5	252.0
71002840	16	5 G 2.5	13.3 - 17.0	3.5	420.0
71002843	16	5 G 1.5	11.2 - 14.4	3.5	252.0
71002844	16	5 G 1.5	11.2 - 14.4	5.0	360.0
71002846	16	5 G 2.5	13.3 - 17.0	3.5	420.0
71002847	16	5 G 2.5	13.3 - 17.0	5.0	600.0

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

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

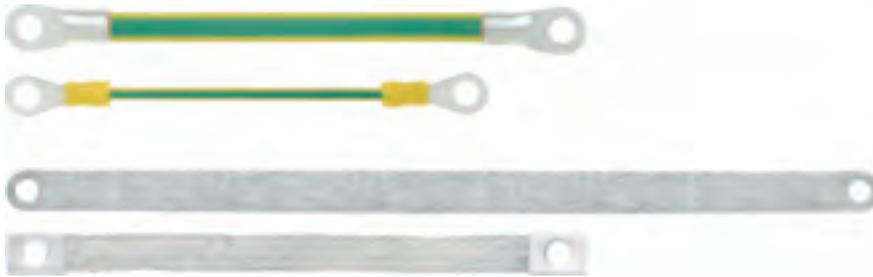
Photographs are not to scale and do not represent detailed images of the respective products.

Please observe the safety information as per DIN VDE 0620-1, Plugs and socket-outlets for household and similar purposes - Part 1: General requirements, appendix E: "Installation only by persons with the relevant electrotechnical expertise and experience!"

Assembled cables

Ground straps

Ground Straps / Flat Ground Straps



Application range

- Control cabinet manufacturing
- The protective earth safety measure is prescribed by standard
- Fixed and moving metal parts, such as doors in switch cabinet construction, must be earthed

Product features

- Fixed lengths for M6 and M8 screws

Approvals



Design

- Ground straps:
 - Strands of bare copper wires
 - PVC-based core insulation
 - Assembled with ring cable lugs
- Pressure-welded flat ground straps:
 - Strand made of tinned-copper wires
 - Welded ends
- Flat ground straps with sleeves:
 - Strands made of tinned-copper wires
 - Assembled with pressed contact sleeves

Technical data

- Core identification code**
Assembled ground straps
green/yellow
- Conductor stranding**
Assembled ground straps
IEC 60 228 Class 6
Assembled flat ground straps
IEC 60 228 Class 6, tin-plated
Extra-fine wire
- Minimum bending radius**
Assembled ground straps
7 x outer diameter
Assembled flat ground straps
5 x outer diameter
- Test voltage**
Assembled ground straps
2500 V
- Temperature range**
Assembled ground straps
-30°C to +70°C
Assembled flat ground straps
-5°C to +70°C

Artikelnummer	Cross-section (mm ²)	Article designation	For	Length (mm)	Copper index (kg/ 1.000 pieces)	PU
Ground straps						
4571120	4	Ground strap 1 x 4/M6/ 170 mm	M6	170	6.5	25
4571121	16	SZ 2565.000/EB	M6	170	26.2	25
4571122	25	SZ 2566.000/EB	M6	170	40.8	25
4571123	4	SZ 2567.000/EB	M8	300	11.4	25
4571124	16	SZ 2568.000/EB	M8	300	46.2	25
4571125	25	SZ 2569.000/EB	M8	300	72.0	25
Pressure-welded flat ground straps						
4571132	10	SZ 2412.210/FEP	M6	200	18.0	25
4571133	16	SZ 2412.216/FEP	M8	200	29.0	25
4571134	25	SZ 2412.225/FEP	M8	200	45.0	25
4571135	10	SZ 2412.310/FEP	M6	300	27.0	25
4571136	16	SZ 2412.316/FEP	M8	300	43.5	25
4571137	25	SZ 2412.325/FEP	M8	300	67.5	25
Flat ground straps with sleeves						
4571126	10	SZ 2412.210/FEH	M6	200	18.0	25
4571127	16	SZ 2412.216/FEH	M8	200	29.0	25
4571128	25	SZ 2412.225/FEH	M8	200	45.0	25
4571129	10	SZ 2412.310/FEH	M6	300	27.0	25
4571130	16	SZ 2412.316/FEH	M8	300	43.5	25
4571131	25	SZ 2412.325/FEH	M8	300	67.5	25

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.

Pre-wired front plug for PLC SIMATIC® S7-300



Info

- In addition to our standard types, other versions with different colours are also available upon request as UNITRONIC® LiYCY, or in tension spring design
- We would be glad to help you find solutions for your specific requirements



Benefits

- Pre-assembled and pre-wired front plugs for *SIMATIC® S7, the leading supplier of programmable controllers (PLCs) around the world
- Single cores used are extra-thin and allow space-saving installation

Product features

- Original Siemens-connectors are used exclusively
- The diameter is smaller than that of a H05V-K single core (0.5 mm²)

Approvals



- For more information on multi-standard single cores, see UL(MTW)-CSA-HAR Style 1015

Design

- The front plugs are in full contact with the single cores of 0.75 mm² or AWG 22 in dark blue (RAL 5010), cores numbered in white according to the allocation in the plug, spacing approx. 20 mm, opposite end cleanly cut
- Conductor end-sleeves or other contacts are available upon request

Note

- Cutting, marking, stripping, crimping and screwing used to be separate operations but the pre-wired front plug for *SIMATIC® S7 provides you with the following advantages:
- Customise the construction by simply removing the cores
- Quick wiring
- Error minimisation: Mix-up of single cores can be ruled out

Article number	Colour	mm ²	Length (m)	Copper index kg/ 1.000 pieces	Weight (kg/ 1000 pieces)
Pre-wired front plug for PLC SIMATIC® S7-300 (392-1AJ00-0AA0) 20-pin, screw-on version					
70268724	dark blue (RAL 5010)	0.75	1.0	144.0	350
70268409	dark blue (RAL 5010)	0.75	2.0	288.0	500
70267059	dark blue (RAL 5010)	0.75	3.0	432.0	700
70262618	dark blue (RAL 5010)	0.75	4.0	576.0	900
70267060	dark blue (RAL 5010)	0.75	5.0	720.0	1,150
Pre-wired front plug for PLC SIMATIC® S7-300 (392-1AM00-0AA0) 40-pin, screw-on version					
70268725	dark blue (RAL 5010)	0.75	1.0	288.0	800
70268410	dark blue (RAL 5010)	0.75	2.0	576.0	1,000
70268411	dark blue (RAL 5010)	0.75	3.0	864.0	1,400
70260001	dark blue (RAL 5010)	0.75	4.0	1,152.0	1,800
70268412	dark blue (RAL 5010)	0.75	5.0	1,440.0	2,250
70260018	dark blue (RAL 5010) - with UL(MTW) single cores	0.50 / AWG22	2.0	384.0	1,000
70260021	dark blue (RAL 5010) - with UL(MTW) single cores	0.50 / AWG22	5.0	960.0	2,250

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
 Siemens part designations (SIMATIC® etc.) are registered trademarks of Siemens AG, and are listed for comparison purposes only.
 Article numbers refer to genuine Lapp products.
 Photographs are not to scale and do not represent detailed images of the respective products.

Assembled cables

Pre-wired front-end connector

Pre-wired front plug for PLC SIMATIC® S7-400



Pre-wired front plug for PLC SIMATIC® S7-400



Info

- Crimp, screw and spring model for SIMATIC® S7-400
- We would be glad to help you find solutions for your specific requirements

■ Benefits

- Single cores used are extra-thin and allow space-saving installation

■ Product features

- Original Siemens-connectors are used exclusively
- The diameter is smaller than that of a H05V-K single core (0.5 mm²)

■ Approvals



- For more information on multi-standard single cores, see UL(MTW)-CSA-HAR Style 1015

■ Design

- The front plugs are in full contact with the single cores of 0.75 mm² or AWG 22 in dark blue (RAL 5010), cores numbered in white according to the allocation in the plug, spacing approx. 20 mm, opposite end cleanly cut
- Conductor end-sleeves or other contacts are available upon request

Article number	Colour	mm ²	Length (m)	Copper index kg/1.000 pieces	Weight (kg/1000 pieces)
Pre-wired front plug for PLC SIMATIC® S7-400 (492-1CL00-0AA0) 48-pin, crimp version					
70268421	dark blue (RAL 5010)	0.75	5.0	1,695.0	2,500
Pre-wired front plug for PLC SIMATIC® S7-400 (492-1AL00-0AA0) 48-pin, screw-on version					
70268423	dark blue (RAL 5010)	0.75	3.0	1,017.0	1,600
70268424	dark blue (RAL 5010)	0.75	5.0	1,695.0	2,500
Pre-wired front plug for PLC SIMATIC® S7-400 (492-1BL00-0AA0) 48-pin, spring version					
70260046	dark blue (RAL 5010)	0.75	4.0	1,356.0	2,000
70268427	dark blue (RAL 5010)	0.75	5.0	1,695.0	2,500
70260053	dark blue (RAL 5010) - with UL(MTW) single cores	0.50 / AWG22	2.0	442.0	1,100

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.
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 APPENDIX

New

Type 2 charging cable 7-way spiral one-sided



New

Type 2 cable 7-way spiral two-sided



RoHS ✓



Info

- Assemblies with type 2 coupling available on request

RoHS ✓



Info

- Assemblies with type 2 coupling available on request

Benefits

- Robust
- Resistant to oil, dust and water
- Special cable design for a long service life
- Flexible at low temperatures
- Fire: Low corrosive smoke emission

Application range

- Electric and hybrid cars
- Charging stations for cars

Product features

- Type 2 charging connector according to VDE-AR-E-2623-2
- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

Design

- Cable for 1-phase charging up to 16 A: Ölflex Charge 3G 2.5 mm² + 2 x 0.5 mm²
- Cable for 3-phase charging up to 16 A: Ölflex Charge 5G 2.5 mm² + 2 x 0.5 mm²
- Cable for 3-phase charging up to 32 A: Ölflex Charge 5G 6 mm² + 2 x 0.5 mm²
- 16 A charging: every connector has a built-in 680 ohm resistor
- 32 A charging: every connector has a built-in 220 ohm resistor

Technical data

- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Nominal voltage**
400 V
- Temperature range**
-25 °C to +80 °C

Article number	Spiral length, extended (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)	PU
Type 2 angled connector, orange spiral-cable, cut off cleanly					
74880039	4,000	orange	738.0	2200	1
74880043	4,000	orange	1,170.0	2900	1
74880047	4,000	orange	2,390.0	4500	1
Type 2 straight connector, yellow spiral-cable, cut off cleanly					
74880016	4,000	yellow	738.0	2200	1
74880020	4,000	yellow	1,170.0	2900	1
74880024	4,000	yellow	2,390.0	4500	1
Type 2 angled connector, orange spiralled cable, type 2 angled connector					
74880040	4,000	orange	689.0	2500	1
74880044	4,000	orange	1,090.0	3200	1
74880048	4,000	orange	2,150.0	4600	1
Type 2 straight connector, yellow spiral-cable, type 2 straight connector					
74880017	4,000	yellow	689.0	2500	1
74880021	4,000	yellow	1,090.0	3200	1
74880050	4,000	yellow	2,150.0	4600	1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

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APPENDIX

Assembled cables

eMobility - Assembled charging line, 7-pin

New

Type 2 charging cable 7-way one-sided



Info

- Assemblies with type 2 coupling available on request

New

Type 2 charging cable 7-way two-sided



Info

- Assemblies with type 2 coupling available on request

Benefits

- Robust
- Resistant to oil, dust and water
- Special cable design for a long service life
- Flexible at low temperatures
- Fire: Low corrosive smoke emission

Application range

- Electric and hybrid cars
- Charging stations for cars

Product features

- Type 2 charging connector according to VDE-AR-E-2623-2
- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

Design

- Cable for 1-phase charging up to 16 A: Ölflex Charge 3G 2.5 mm² + 2 x 0.5 mm²
- Cable for 3-phase charging up to 16 A: Ölflex Charge 5G 2.5 mm² + 2 x 0.5 mm²
- Cable for 3-phase charging up to 32 A: Ölflex Charge 5G 6 mm² + 2 x 0.5 mm²
- 16 A charging: every connector has a built-in 680 ohm resistor
- 32 A charging: every connector has a built-in 220 ohm resistor

Technical data



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



Nominal voltage
400 V



Temperature range
-25°C to +80°C

Article number	Spiral length, extended (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)	PU
Type 2 angled connector, orange cable, cut off cleanly					
74880037	4,000	orange	335.0	1300	1
74880041	4,000	orange	531.0	1600	1
74880045	4,000	orange	1,216.0	2500	1
Type 2 straight connector, yellow cable, cut off cleanly					
74880014	4,000	yellow	335.0	1300	1
74880018	4,000	yellow	531.0	1600	1
74880022	4,000	yellow	1,216.0	2500	1
Type 2 angled connector, orange cable, type 2 angled connector					
74880038	4,000	orange	342.0	1700	1
74880042	4,000	orange	541.0	2050	1
74880046	4,000	orange	1,216.0	3200	1
Type 2 straight connector, yellow cable, type 2 straight connector					
74880015	4,000	yellow	342.0	1700	1
74880019	4,000	yellow	541.0	2050	1
74880023	4,000	yellow	1,240.0	3200	1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

New

Type 2 charging cable 7-way Helix two-sided



Info

- Dimensionally stable helix design
- Lower space requirement, lightweight design
- Assemblies with type 2 coupling available on request

Benefits

- Retains the patented helix form in daily use
- Resistant to oil, dust and water
- Special cable design for a long service life
- Flexible at low temperatures
- Fire: Low corrosive smoke emission

Application range

- Electric and hybrid cars
- Charging stations for cars

Product features

- Type 2 charging connector according to VDE-AR-E-2623-2
- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

Design

- Cable for 1-phase charging up to 16 A: Ölflex Charge 3G 2.5 mm² + 2 x 0.5 mm²
- Cable for 3-phase charging up to 16 A: Ölflex Charge 5G 2.5 mm² + 2 x 0.5 mm²
- Cable for 3-phase charging up to 32 A: Ölflex Charge 5G 6 mm² + 2 x 0.5 mm²
- 16 A charging: every connector has a built-in 680 ohm resistor
- 32 A charging: every connector has a built-in 220 ohm resistor

Technical data

- Conductor stranding**
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
- Nominal voltage**
400 V
- Temperature range**
-25 °C to +80 °C



Article number	Spiral length, extended (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)	PU
74880051	4,000	orange	355.9	1957	1
74880052	4,000	orange	564.2	2026	1
74880053	4,000	orange	1,293.3	3016	1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.



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Assembled cables

eMobility - Assembled charging socket, 7-pin

New

Type 2 charging socket



New

Type 2 Accessories



Benefits

Type 2 charging socket

- Pre-assembled for fast installation
- Robust against mechanical impacts

Application range

Type 2 charging socket

- Electric and hybrid cars
- Charging stations for cars

Product features

Type 2 charging socket

- Three different versions for all installation situations
- Optional with hinged lid for increased dust and water protection
- Types for front and back wall assembly
- Type 2 charging connector according to VDE-AR-E-2623-2

Type 2 Accessories

- The electromechanical locking prevents detaching of the connector during charging

Technical data

- Conductor stranding**
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5
- Minimum bending radius**
4 x outer diameter (OD) for normal use; 2 x OD for short-term bending
- Nominal voltage**
400 V
- Temperature range**
-25°C to +80°C

Article number	Number of cores and mm ² per conductor	Länge in m	Copper index (kg/km)	PU
Type 2 charging socket, back wall assembly				
74880000	H07V-K 5G4mm ² + 2x 0,5mm ²	1.0	199.6	1
74880001	H07V-K 5G6mm ² + 2x 0,5mm ²	1.0	299.6	1
74880002	H07V-K 5G10mm ² + 2x 0,5mm ²	1.0	489.6	1
Type 2 charging socket, round cover				
74880003	H07V-K 5G4mm ² + 2x 0,5mm ²	1.0	199.6	1
74880004	H07V-K 5G6mm ² + 2x 0,5mm ²	1.0	299.6	1
74880005	H07V-K 5G10mm ² + 2x 0,5mm ²	1.0	489.6	1
Type 2 charging socket, round cover, hinged lid				
74880006	H07V-K 5G4mm ² + 2x 0,5mm ²	1.0	199.6	1
74880007	H07V-K 5G6mm ² + 2x 0,5mm ²	1.0	299.6	1
74880008	H07V-K 5G10mm ² + 2x 0,5mm ²	1.0	489.6	1
Type 2 charging socket, square cover, hinged lid				
74880009	H07V-K 5G4mm ² + 2x 0,5mm ²	1.0	199.6	1
74880010	H07V-K 5G6mm ² + 2x 0,5mm ²	1.0	299.6	1
74880011	H07V-K 5G10mm ² + 2x 0,5mm ²	1.0	489.6	1
Electromechanical lock, actuator				
74880012				1
Supply line for actuator, pigtail				
74880013	3x FLRY bl/rt/sw	1.0		1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

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New

Type F charging cable 3-way spiral



New

Type F charging cable 3-way



Benefits

- Robust
- Resistant to oil, dust and water
- Wear-resistant
- Flexible at low temperatures
- Fire: Low corrosive smoke emission

Application range

- Electric and hybrid cars
- Charging stations for cars

Product features

- Type F charging plug
- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

Design

- Cable for 1-phase charging up to 16 A: Ölflex 540P 3G 2.5 mm²

Technical data



Approvals

IEC 60309
VDE 0623



Conductor stranding

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



Nominal voltage

2+PE: 230V



Temperature range

-25 °C to +80 °C

Article number	Spiral length, extended (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)	PU
Type F straight connector, yellow spiral-cable, type F straight connector					
74880030	4,000	yellow	519.0	1350	1
Type F straight connector, yellow cable, type F straight connector					
74880029	4,000	yellow	300.0	850	1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Assembled cables

eMobility - Assembled charging line, 3-pin, 5-pin

New

CEE charging cable 3-way spiral



New

CEE Charging cable 3-way



Benefits

- Robust
- Resistant to oil, dust and water
- Wear-resistant
- Flexible at low temperatures
- Fire: Low corrosive smoke emission

Application range

- Electric and hybrid cars
- Charging stations for cars

Product features

- CEE charging plug, 3-pin
- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

Design

- Cable for 1-phase charging up to 16 A: Ölflex 540P 3G 2.5 mm²

Technical data



Approvals
IEC 60309
VDE 0623



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



Nominal voltage
2+PE: 230V



Temperature range
-25°C to +80°C

Article number	Spiral length, extended (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)	PU
CEE straight 3-pin connector, yellow spiralsed cable, CEE straight 3-pin connector					
74880032	4,000	yellow	598.0	1450	1
CEE straight 3-pin connector, yellow cable, CEE straight 3-pin connector					
74880031	4,000	yellow	300.0	950	1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

New

CEE charging cable 5-way spiral



New

CEE charging cable 5-way



Benefits

- Robust
- Resistant to oil, dust and water
- Wear-resistant
- Flexible at low temperatures
- Fire: Low corrosive smoke emission

Application range

- Electric and hybrid cars
- Charging stations for cars

Product features

CEE charging cable 5-way spiral

- CEE charging plug, 5-pin
- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

CEE charging cable 5-way

- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- PUR outer sheath
- Suitable for all weather conditions

Design

- Cable for 3-phase charging up to 16 A: Ölflex 540P 5G 2.5 mm²

Technical data



Approvals

IEC 60309
VDE 0623



Conductor stranding

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



Nominal voltage

4+PE: 400V



Temperature range

-25 °C to +80 °C

Article number	Spiral length, extended (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)	PU
CEE straight 5-pin connector, yellow spiralised cable, CEE straight 5-pin connector					
74880034	4,000	yellow	864.0	2150	1
74880036	4,000	yellow	2,132.0	4600	1
CEE straight 5-pin connector, yellow cable, CEE straight 5-pin connector					
74880033	4,000	yellow	500.0	1400	1
74880035	4,000	yellow	1,199.0	2860	1

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Assembled cables

eMobility - Assembled charging socket, 3-pin, 5-pin

New

Type F Charging socket 3-way



New

CEE charging socket 3-way



New

CEE charging socket 5-way



Benefits

- Easy to assemble
- Robust against mechanical impacts

Product features

Type F Charging socket 3-way

- Optional with hinged lid for increased dust and water protection
- IP 44
- IP 54 with hinged lid
- Flange 50 x 50 mm
- Bore hole, 38 x 38 mm
- With “normally open” auxiliary contact

CEE charging socket 3-way

- IP 44
- IP 54 with hinged lid
- Flange, 85 x 85 mm
- Bore hole, 70 x 70 mm
- With “normally open” auxiliary contact
- QUICK-CONNECT

CEE charging socket 5-way

- IP 44
- IP 54 with hinged lid
- Flange, 85 x 85 mm
- Bore hole, 70 x 70 mm
- With “normally open” auxiliary contact
- QUICK-CONNECT

Technical data



Approvals
IEC 60309
VDE 0620



Nominal voltage
230 V



Temperature range
-25°C to +80°C

Article number	Copper index (kg/km)	PU
Type F charging socket, 2+PE, 1-phase charging up to 16 A		
74880025	2,150.0	1
Type F charging socket, 2+PE, with hinged lid, 1-phase charging up to 16 A		
74880026		1
CEE charging socket, 2+PE, with hinged lid, 1-phase charging up to 16 A		
74880027		1
CEE charging socket, 4+PE, with hinged lid, 3-phase charging up to 16 A		
74880028		1
CEE charging socket, 4+PE, with hinged lid, 3-phase charging up to 32 A		
74880049		1

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

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ACCESSORIES
APPENDIX