NEW

ÖLFLEX® CLASSIC 100 300/500V

Colour-coded PVC control cable

Info

- Nominal voltage U_0/U: 300/500V
- Identical to previous ÖLFLEX CLASSIC 100 up to 1,5mm² but with extended range of cross-section
- For nominal voltage U_0/U: 450/750V or higher conductor cross-sections see ÖLFLEX® CLASSIC 100 450/750V

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
- Now available with conductor cross-section from 2,5mm² as 300/500V version

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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

- Flame-retardant according IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 300/500 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	63
00101244	5 X 0.5	6.2	24	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	116
0010008	12 G 0.5	8.9	58	133
0010009	14 G 0.5	9.5	67	151
0010010	16 G 0.5	10.0	76	169
0010011	21 G 0.5	11.7	99	223
0010012	24 G 0.5	12.4	114	254
0010016	40 G 0.5	15.4	192	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
00101264	4 X 0.75	6.2	28.8	66
00100244	5 G 0.75	6.7	36	79
00101274	5 X 0.75	6.7	36	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	123
0010028	9 G 0.75	9.4	63	144
0010029	10 G 0.75	9.6	72	153
0010030	12 G 0.75	9.9	86.4	176
0010031	15 G 0.75	10.9	108	211
0010032	18 G 0.75	11.7	129.6	268
0010033	21 G 0.75	13.0	151	293
0010034	25 G 0.75	13.8	180	374
0010036	40 G 0.75	17.3	288	571
0010037	50 G 0.75	19.2	360	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	94
00102054	5 X 1.0	7.1	48	94

ÖLFLEX® CLASSIC 100 300/500V

Colour-coded PVC control cable

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0010045	6 G 1.0	8.0	58	124
0010046	7 G 1.0	8.0	67	131
0010047	8 G 1.0	9.5	77	146
0010049	10 G 1.0	10.2	96	183
0010050	12 G 1.0	10.5	115	215
0010052	16 G 1.0	11.8	154	282
0010053	18 G 1.0	12.7	173	315
0010054	20 G 1.0	13.4	192	350
0010056	25 G 1.0	14.7	240	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
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	128
00101304	5 X 1.5	8.1	72	128
0010068	7 G 1.5	8.9	101	166
0010069	8 G 1.5	10.6	115	205
0010071	12 G 1.5	12.0	173	307
0010072	14 G 1.5	12.7	202	349
0010074	18 G 1.5	14.4	259	465
0010076	25 G 1.5	16.9	360	655
1120800	2 X 2.5	7.5	48	100
1120801	3 G 2.5	8.1	72	132
1120802	4 G 2.5	8.9	96	163
1120803	5 G 2.5	10.0	120	200

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1120804	7 G 2.5	11.1	168	267
1120805	2 X 4	9.2	77	160
1120806	3 G 4	9.9	115.2	201
1120807	4 G 4	10.8	153.6	263
1120808	5 G 4	12.1	192	315
1120809	7 G 4	13.4	269	407
1120810	3 G 6	11.7	174	289
1120811	4 G 6	13.0	230	352
1120812	5 G 6	14.5	288	470
1120813	7 G 6	16.0	403	600
1120814	3 G 10	14.6	288	466
1120815	4 G 10	16.2	384	590
1120816	5 G 10	18.1	480	722
1120817	3 G 16	17.0	460.8	720
1120818	4 G 16	18.8	614.4	1067
1120819	5 G 16	21.2	768	1370
1120820	3 G 25	21.0	720	1250
1120821	4 G 25	23.5	960	1582
1120822	5 G 25	26.4	1200	1998
1120823	3 G 35	23.7	1008	1700
1120824	4 G 35	26.4	1344	2106
1120825	5 G 35	29.6	1680	2635
1120826	3 G 50	29.1	1440	2200
1120827	4 G 50	32.4	1920	2800
1120828	5 G 50	36.5	2400	3600

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Single lengths for sizes: ≥ 5G50 max. 500 m; ≥ 5G95 max. 400; ≥ 3G120 max. 500 m; ≥ 4G120 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 276
- ÖLFLEX® CLASSIC 100 H refer to page 63
- ÖLFLEX® CLASSIC 100 BK 0,6/1 kV refer to page 32
- ÖLFLEX® CLASSIC 130 H BK 0,6/1 kV refer to page 69

Accessories

- SKINTOP® CLICK refer to page 715
- Detectable Cable ties refer to page 1059
- TY - FAST® cable ties refer to page 1058
- STAR STRIP stripping tool refer to page 1000

NEW

ÖLFLEX® CLASSIC 100 450/750V

Colour-coded PVC power and control cable

Benefits

- 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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

- Flame-retardant according IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51

Product Make-up

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

Info

- Nominal voltage U_0/U: 450/750V
- Identical to previous ÖLFLEX CLASSIC 100 starting at 2,5mm²
- For nominal voltage U_0/U: 300/500V and conductor cross-sections below 2,5mm² see ÖLFLEX® CLASSIC 100 300/500V

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 450/750 V				
0010086	2 X 2.5	8.9	48	128
0010087	3 G 2.5	9.6	72	162
00100933	3 X 2.5	9.6	72	162
00100883	4 G 2.5	10.7	96	203
00100893	5 G 2.5	11.8	120	242
0010091	7 G 2.5	13.1	168	321
0010092	8 G 2.5	15.8	192	385
0010100	2 X 4	10.4	76.8	187
0010210	3 G 4	11.2	115.2	244
00101013	4 G 4	12.5	154	297
00101023	5 G 4	13.7	192	355
0010103	7 G 4	15.2	269	471
0010105	3 G 6	12.6	173	318
00101063	4 G 6	13.8	230	394
00101073	5 G 6	15.6	288	489
0010108	7 G 6	17.3	403	651
0010301	3 G 10	15.9	288	516
00101093	4 G 10	17.6	384	650
00101103	5 G 10	19.7	480	792
0010111	7 G 10	21.7	672	1058
0010302	3 G 16	18.3	461	728

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
00101123	4 G 16	20.4	614	1087
00101133	5 G 16	22.8	768	1118
0010303	3 G 25	23.0	720	1388
00101153	4 G 25	25.4	960	1582
00101163	5 G 25	28.5	1200	1771
0010304	3 G 35	25.6	1008	1766
00101173	4 G 35	28.5	1344	2106
00101183	5 G 35	31.9	1680	2635
0010305	3 G 50	31.0	1440	2556
00101193	4 G 50	34.5	1920	2943
00103133	5 G 50	38.6	2400	3936
0010306	3 G 70	35.3	2016	3182
00101203	4 G 70	39.4	2688	4092
00103143	5 G 70	44.1	3360	4800
0010307	3 G 95	41.3	2736	4675
00101213	4 G 95	45.8	3648	5290
00103153	5 G 95	51.6	4560	5600
0010308	3 G 120	47.6	3456	5626
00103093	4 G 120	53.1	4608	6994
00103113	4 G 150	57.4	5760	7500
00103123	4 G 185	62.8	7104	8300

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Single lengths for sizes: ≥ 5G50 max. 500 m; ≥ 5G95 max. 400; ≥ 3G120 max. 500 m; ≥ 4G120 max. 300; ≥ 4G185 max. 250 m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 100 300/500V refer to page 26
- ÖLFLEX® CLASSIC 100 H refer to page 63
- ÖLFLEX® CLASSIC 100 BK 0,6/1 kV refer to page 32

Accessories

- SKINTOP® CLICK refer to page 715
- Detectable Cable ties refer to page 1059
- STAR STRIP stripping tool refer to page 1000

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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

- Flame-retardant according IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 YELLOW; U_0/U: 450/750 V				
0010400	3 G 1.5	8.1	43	95
00104023	4 G 1.5	8.9	58	117
00104033	5 G 1.5	10.0	72	144
0010401	3 G 2.5	9.6	72	152
00104043	4 G 2.5	10.7	96	205
00104053	5 G 2.5	11.8	120	225

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 450 P refer to page 84
- ÖLFLEX® 540 P refer to page 86

Accessories

- SKINTOP® CLICK refer to page 715
- STAR STRIP stripping tool refer to page 1000

ÖLFLEX® CLASSIC 100 CY

Colour-coded and screened PVC control cable

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 IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1
- High degree of screening
  low transfer impedance
  (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

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: U_0/U: 300/500 V
From 1.5 mm²: U_0/U: 450/750 V
Fixed, protected installation:
U_0/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 100 CY; U_0/U: 300/500 V				
0035001	2 X 0.5	7.0	41	75
0035002	3 G 0.5	7.3	46	83
00350033	4 G 0.5	7.9	55	99
00352013	5 G 0.5	8.4	66	112
0035202	7 G 0.5	8.9	80	132
0035004	2 X 0.75	7.4	46	86
0035005	3 G 0.75	7.9	57	100
00350063	4 G 0.75	8.4	64	115
00350163	5 G 0.75	8.9	77	130
0035203	7 G 0.75	9.7	102	161
0035220	2 X 1.0	7.9	56	98
0035221	3 G 1.0	8.2	65	111
00352223	4 G 1.0	8.7	78	130
00352233	5 G 1.0	9.5	89	153
0035204	7 G 1.0	10.2	113	185
ÖLFLEX® CLASSIC 100 CY; U_0/U: 450/750 V				
0035000	2 X 1.5	9.9	65	132
0035458	3 G 1.5	10.3	79	170
00354593	4 G 1.5	11.3	97	204
00354603	5 G 1.5	12.6	116	246
0035461	7 G 1.5	13.9	149	320
0035011	3 G 2.5	11.8	146	211
00350173	4 G 2.5	13.5	167	310
00350123	5 G 2.5	14.6	200	326

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0035289	7 G 2.5	15.9	288	444
00350183	4 G 4	15.1	237	403
00350133	5 G 4	16.5	328	478
00350193	4 G 6	16.6	318	521
00350143	5 G 6	18.2	441	624
0034953	3 G 10	18.9	414	690
00350213	4 G 10	21.1	558	843
00352903	5 G 10	23.1	714	1004
0034954	3 G 16	21.7	607	910
00350223	4 G 16	23.9	804	1164
00350153	5 G 16	26.8	1050	1812
0034955	3 G 25	26.6	936	1330
00350233	4 G 25	29.4	1289	1903
00350243	5 G 25	32.6	1446	2374
0034956	3 G 35	29.4	1258	1370
00350253	4 G 35	32.4	1693	2489
00350263	5 G 35	36.0	1975	2771
0034952	3 G 50	35.1	1748	2590
00350273	4 G 50	38.8	2342	3362
00350283	4 G 70	43.7	3035	3719
00350293	4 G 95	50.4	4055	5849
00354303	4 G 120	56.8	5225	7509
00354313	4 G 150	62.2	6300	7800
00354323	4 G 185	67.8	7753	9866

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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 104
- ÖLFLEX® SERVO 2YSLCY-JB refer to page 102

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- 3M Scotch™ 1183 screening tape refer to page 1044
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® CLASSIC 100 SY

Colour-coded PVC control cable with steel wire braiding

Info

- Steel wire braiding for extra mechanical protection

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 IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

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: U_0/U: 300/500 V
From 2.5 mm²: U_0/U: 450/750 V
From 2.5 mm², in the case of fixed and protected installations: U_0/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 100 SY; U_0/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	146
0016027	7 G 0.75	10.3	50	172
0016031	12 G 0.75	12.9	86	260
0016042	2 X 1.0	8.5	19.2	137
0016043	3 G 1.0	8.8	29	154
00160443	4 G 1.0	9.5	38.4	180
00160453	5 G 1.0	10.1	48	202
0016047	7 G 1.0	11.0	67	242
0016064	2 X 1.5	9.3	29	172
0016065	3 G 1.5	9.7	43	191
00160663	4 G 1.5	10.2	58	217
00160673	5 G 1.5	11.1	72	268
0016069	7 G 1.5	11.9	101	311
0016072	12 G 1.5	15.4	173	499
0016075	18 G 1.5	17.6	259	652
0016077	25 G 1.5	20.3	360	913

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 SY; U_0/U: 450/750 V				
0016087	2 X 2.5	12.1	48	245
0016088	3 G 2.5	12.6	72	278
00160893	4 G 2.5	13.9	96	339
00160903	5 G 2.5	15.2	120	397
0016092	7 G 2.5	16.3	168	470
0016101	2 X 4	13.6	76.8	329
00161023	4 G 4	15.7	154	457
00161033	5 G 4	17.1	192	545
0016106	3 G 6	15.8	173	544
00161073	4 G 6	17.2	230	687
00161083	5 G 6	18.8	288	798
00161103	4 G 10	21.3	384	1009
00161113	5 G 10	23.3	480	1197
00161133	4 G 16	24.1	614	1384
00161143	5 G 16	26.8	768	1740
00161163	4 G 25	29.4	960	2021
00161173	5 G 25	32.6	1200	2464
00161183	4 G 35	32.4	1344	2570
00161193	5 G 35	36.0	1680	3185
00161203	4 G 50	38.8	1920	3514

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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 41

Accessories

- KT cable shears refer to page 999

ÖLFLEX® CLASSIC 100 BK 0,6/1 kV

Info
- Good outdoor performance

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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Suitable for outdoor applications
- Suitable for direct burial

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

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

Technical data

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

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

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 BK 0,6/1 kV				
1120457	3 G 1.0	9.0	29	112
1120459	5 G 1.0	10.4	48	152
1120462	2 X 1.5	9.6	29	123
1120463	3 G 1.5	10.1	43	144
1120464	4 G 1.5	10.8	58	170
1120465	5 G 1.5	11.7	72	199
1120469	3 G 2.5	11.3	72	182
1120470	4 G 2.5	12.2	96	225
1120474	4 G 4	13.8	154	324
1120475	4 G 6	15.1	230	442

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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 0,6/1 kV refer to page 69
- ÖLFLEX® CLASSIC 110 BLACK 0,6/1 kV refer to page 42

Accessories
- FLEXIMARK® Stainless steel kit refer to page 956
- SKINTOP® MS-M refer to page 724
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

ÖLFLEX® SMART 108

Cost-effective VDE-registered PVC control cable

Info

- VDE certificate of conformity with factory surveillance
- Only available in standard lengths and standard packagings

Benefits

- SMART: good price/performance ratio the ÖLFLEX® SMART 108 has everything a flexible control cable needs
- SMART: environmentally friendly internal sheath layer made from recycled PVC with the same high quality of the TM2 model

Application range

- 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
- Main dimensions available, further dimensions see ÖLFLEX® CLASSIC 110
- For extended applications and individual lengths, see ÖLFLEX® CLASSIC 110

Product features

- Flame-retardant according IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1
- Oil resistance: see data sheet

Norm references / Approvals

- VDE reg. no. 8639

Product Make-up

- Fine-wire strand made of bare copper wires
- PVC insulation, TI2
- Two-layer PVC outer sheath, TM2; outside silvergrey

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Conductor stranding
Fine wire according to DIN EN 60228 (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_0/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 mm² per conductor	Standard length (m) and standard packaging						Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
		50 m /RG	100 m /RG	200 m /RG	200 m /DR	500 m /DR	1000 m /DR			
ÖLFLEX® SMART 108										
17520099	2 X0.5		100	200		500	1000	4.8	9.6	35
10030099	3 G0.5		100	200		500	1000	5.1	14.4	42
17530099	3 X0.5		100	200		500	1000	5.1	14.4	42
10040099	4 G0.5		100	200		500	1000	5.7	19.2	54
17540099	4 X0.5		100	200		500	1000	5.7	19.2	54
10050099	5 G0.5		100	200		500	1000	6.2	24	63
10070099	7 G0.5	50	100	200		500	1000	6.7	33.6	81
18020099	2 X0.75		100	200		500	1000	5.4	14.4	45
11030099	3 G0.75		100	200		500	1000	5.7	21.6	55
18030099	3 X0.75		100	200		500	1000	5.7	21.6	55
11040099	4 G0.75		100	200		500	1000	6.2	28.8	66
18040099	4 X0.75		100	200		500	1000	6.2	28.8	66
11050099	5 G0.75	50	100	200		500	1000	6.7	36	79
11070099	7 G0.75	50	100	200		500	1000	7.3	50	101
18520099	2 X1.0		100	200		500	1000	5.7	19.2	53
12030099	3 G1.0		100	200		500	1000	6.0	28.8	65
12040099	4 G1.0	50	100	200		500	1000	6.5	38.4	79
12050099	5 G1.0	50	100	200		500	1000	7.1	48	94
12070099	7 G1.0	50	100	200		500	1000	8.0	67	126
19020099	2 X1.5		100	200		500	1000	6.3	29	68
13030099	3 G1.5	50	100	200		500	1000	6.7	43	84
13040099	4 G1.5	50	100	200		500	1000	7.2	58	104
13050099	5 G1.5	50	100	200		500	1000	8.1	72	128
13070099	7 G1.5	50	100		200	500	1000	8.9	101	166
19520099	2 X2.5	50	100	200		500	1000	7.5	48	101
14030099	3 G2.5	50	100	200		500	1000	8.1	72	132
14040099	4 G2.5	50	100		200	500	1000	8.9	96	163
14050099	5 G2.5	50	100		200	500	1000	10.0	120	200
14070099	7 G2.5	50	100		200	500	1000	11.1	168	267

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

Similar products

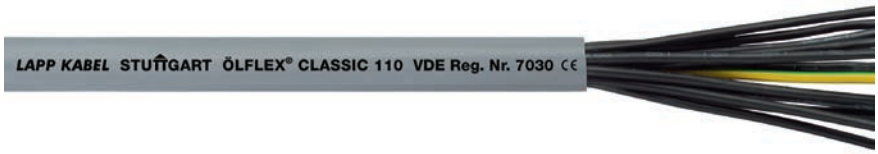
- ÖLFLEX® CLASSIC 110 refer to page 34
- ÖLFLEX® CLASSIC 110 refer to page 37

Accessories

- EPIC® Industrial connectors
- SKINTOP® ST-M refer to page 712

ÖLFLEX® CLASSIC 110

VDE-registered oil-resistant PVC control cable for a wide range of applications



Info

- VDE certificate of conformity with factory surveillance
- More than 140 items with up to 100 conductors

Benefits

- Wide choice of standardized lengths and individual cuts
- Very broad range, items with up to 100 conductors

Application range

- 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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- In power chains for a travelling distance up to 5 m and 0,2 ... 1 million bending cycles, for following dimensions: 0,5 to 2.5mm² and 2 to 7 conductors

Product features

- Flame-retardant according IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1
- Oil-resistant according to DIN EN 50290-2-22 (TM54)

Norm references / Approvals

- VDE reg. no. 7030 for the following sizes:
  up to 2.5 mm²: 2 - 65 cores
  from 4 mm²: 2 - 7 cores
  from 25 mm²: 2 - 5 cores

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Conductor stranding
Fine wire according to DIN EN 60228 (VDE 0295), class 5 / IEC 60228 class 5

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Occasional flexing: 10 x outer diameter
In power chains: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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
In power chains: -5°C to +70°C
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Standard length (m) and standard packaging							Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
		25	50	100	200	300	500	1000			
ÖLFLEX® CLASSIC 110											
1119752	2 X0.5			100	200	300	500	1000	4.8	9.6	35
1119003	3 G0.5			100	200	300	500	1000	5.1	14.4	42
1119753	3 X0.5			100	200	300	500	1000	5.1	14.4	42
1119004	4 G0.5			100	200	300	500	1000	5.7	19.2	54
1119754	4 X0.5			100	200	300	500	1000	5.7	19.2	54
1119005	5 G0.5			100	200	300	500	1000	6.2	24	63
1119755	5 X0.5			100	200	300	500	1000	6.2	24	63
1119007	7 G0.5		50	100	200	300	500	1000	6.7	33.6	81
1119757	7 X0.5		50	100	200	300	500	1000	6.7	33.6	81
1119010	10 G0.5		50	100	200	300	500	1000	8.6	48	116
1119012	12 G0.5		50	100	200	300	500	1000	8.9	58	131
1119014	14 G0.5		50	100			500	1000	9.5	67	153
1119018	18 G0.5		50	100			500	1000	10.5	86.4	188
1119021	21 G0.5		50	100			500	1000	11.7	101	221
1119025	25 G0.5		50	100			500	1000	12.4	120	261
1119030	30 G0.5		50	100			500	1000	13.3	144	304
1119035	35 G0.5		50	100			500	1000	14.5	168	356
1119040	40 G0.5		50	100			500	1000	15.4	192	400
1119052	52 G0.5		50	100			500		17.3	250	517
1119061	61 G0.5		50	100			500		18.5	293	603
1119065	65 G0.5		50	100			500		19.6	312	644

ÖLFLEX® CLASSIC 110

VDE-registered oil-resistant PVC control cable for a wide range of applications

Article number	Number of cores and mm² per conductor	Standard length (m) and standard packaging							Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
		25	50	100	200	300	500	1000			
1119080	80 G0.5		50	100			500		21.1	384	780
1119100	100 G0.5		50	100			500		23.6	480	975
1119802	2 X0.75			100	200	300	500	1000	5.4	14.4	45
1119103	3 G0.75			100	200	300	500	1000	5.7	21.6	55
1119803	3 X0.75			100	200	300	500	1000	5.7	21.6	55
1119104	4 G0.75			100	200	300	500	1000	6.2	28.8	66
1119804	4 X0.75			100	200	300	500	1000	6.2	28.8	66
1119105	5 G0.75		50	100	200	300	500	1000	6.7	36	79
1119805	5 X0.75		50	100	200	300	500	1000	6.7	36	79
1119107	7 G0.75		50	100	200	300	500	1000	7.3	50	101
1119807	7 X0.75		50	100	200	300	500	1000	7.3	50	101
1119109	9 G0.75		50	100	200	300	500	1000	9.4	65	137
1119110	10 G0.75		50	100	200	300	500	1000	9.6	72	150
1119112	12 G0.75		50	100	200	300	500	1000	9.9	86	171
1119812	12 X0.75		50	100	200	300	500	1000	9.9	86	171
1119115	15 G0.75		50	100			500	1000	10.9	108	209
1119117	15 X0.75		50	100			500	1000	10.9	108	209
1119116	16 G0.75		50	100			500	1000	11.1	115.2	220
1119118	18 G0.75		50	100			500	1000	11.7	130	244
1119121	21 G0.75		50	100			500	1000	13.0	151	286
1119125	25 G0.75		50	100			500	1000	13.8	180	337
1119126	26 G0.75		50	100			500	1000	14.2	187.2	350
1119134	34 G0.75		50	100			500	1000	15.9	245	448
1119141	41 G0.75		50	100			500	1000	17.4	296	538
1119150	50 G0.75		50	100			500		19.2	360	648
1119151	51 G0.75		50	100			500		19.2	367	646
1119161	61 G0.75		50	100			500		20.5	439	779
1119165	65 G0.75		50	100			500		21.8	468	832
1119180	80 G0.75		50	100			500		23.6	576	1019
1119200	100 G0.75		50	100			500		26.4	718	1271
1119852	2 X1.0			100	200	300	500	1000	5.7	19.2	53
1119203	3 G1.0			100	200	300	500	1000	6.0	28.8	65
1119853	3 X1.0			100	200	300	500	1000	6.0	28.8	65
1119204	4 G1.0		50	100	200	300	500	1000	6.5	38.4	79
1119854	4 X1.0		50	100	200	300	500	1000	6.5	38.4	79
1119205	5 G1.0		50	100	200	300	500	1000	7.1	48	94
1119855	5 X1.0		50	100	200	300	500	1000	7.1	48	94
1119206	6 G1.0		50	100	200	300	500	1000	8.0	58	113
1119207	7 G1.0		50	100	200	300	500	1000	8.0	67	126
1119857	7 X1.0		50	100	200	300	500	1000	8.0	67	126
1119208	8 G1.0		50	100	200	300	500	1000	9.5	77	149
1119209	9 G1.0		50	100	200	300	500	1000	10.0	86	164
1119210	10 G1.0		50	100	200	300	500	1000	10.2	96	180
1119212	12 G1.0		50	100	200	300	500	1000	10.5	115	205
1119862	12 X1.0		50	100	200	300	500	1000	10.5	115	205
1119214	14 G1.0		50	100			500	1000	11.2	134	238
1119216	16 G1.0		50	100			500	1000	11.8	153.6	266
1119218	18 G1.0		50	100			500	1000	12.7	173	320
1119868	18 X1.0		50	100			500	1000	12.7	173	320
1119220	20 G1.0		50	100			500	1000	13.4	192	330
1119870	20 X1.0		50	100			500	1000	13.4	192	330
1119225	25 G1.0		50	100			500	1000	14.7	240	408
1119226	26 G1.0		50	100			500	1000	15.1	249	424
1119234	34 G1.0		50	100			500	1000	17.1	326	551
1119236	36 G1.0		50	100			500	1000	17.4	346	578
1119241	41 G1.0		50	100			500	1000	18.8	394	661
1119250	50 G1.0		50	100			500		20.6	480	797
1119256	56 G1.0		50	100			500		21.4	538	888
1119261	61 G1.0		50	100			500		22.1	586	958
1119265	65 G1.0		50	100			500		23.6	624	1033
1119280	80 G1.0		50	100			500		25.3	768	1251
1119300	100 G1.0		50	100			500		28.3	960	1560
1119902	2 X1.5			100	200	300	500	1000	6.3	29	68
1119303	3 G1.5	25	50	100	200	300	500	1000	6.7	43	84
1119903	3 X1.5		50	100	200	300	500	1000	6.7	43	84
1119304	4 G1.5	25	50	100	200	300	500	1000	7.2	58	104
1119904	4 X1.5		50	100	200	300	500	1000	7.2	58	104
1119305	5 G1.5	25	50	100	200	300	500	1000	8.1	72	128
1119905	5 X1.5		50	100	200	300	500	1000	8.1	72	128
1119306	6 G1.5		50	100	200	300	500	1000	8.4	86.4	157
1119307	7 G1.5	25	50	100	200	300	500	1000	8.9	101	166
1119907	7 X1.5		50	100	200	300	500	1000	8.9	101	166
1119308	8 G1.5		50	100			500	1000	10.6	115	210
1119313	8 X1.5		50	100			500	1000	10.6	116	210
1119309	9 G1.5		50	100			500	1000	11.4	130	221
1119310	10 G1.5		50	100			500	1000	11.6	143	243

ÖLFLEX® CLASSIC 110

VDE-registered oil-resistant PVC control cable for a wide range of applications

Article number	Number of cores and mm² per conductor	Standard length (m) and standard packaging							Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
		25	50	100	200	300	500	1000			
1119311	11 G1.5		50	100			500	1000	11.6	158	258
1119312	12 G1.5	25	50	100			500	1000	12.0	173	279
1119912	12 X1.5		50	100			500	1000	12.0	173	279
1119314	14 G1.5		50	100			500	1000	12.7	202	323
1119316	16 G1.5		50	100			500	1000	13.4	230.4	361
1119318	18 G1.5	25	50	100			500	1000	14.4	259	407
1119321	21 G1.5		50	100			500	1000	15.7	302	469
1119325	25 G1.5	25	50	100			500	1000	16.9	360	560
1119326	26 G1.5		50	100			500	1000	17.3	374.4	582
1119332	32 G1.5		50	100			500	1000	18.7	461	704
1119334	34 G1.5		50	100			500	1000	19.4	490	746
1119341	41 G1.5		50	100			500	1000	21.3	591	895
1119350	50 G1.5		50	100			500		23.5	720	1089
1119361	61 G1.5		50	100			500		25.2	878	1309
1119365	65 G1.5		50	100			500		26.7	936	1398
1119952	2 X2.5	25	50	100	200	300	500	1000	7.5	48	101
1119403	3 G2.5	25	50	100	200	300	500	1000	8.1	72	132
1119404	4 G2.5	25	50	100	200	300	500	1000	8.9	96	163
1119405	5 G2.5	25	50	100	200	300	500	1000	10.0	120	200
1119407	7 G2.5	25	50	100			500	1000	11.1	168	267
1119412	12 G2.5	25	50	100			500	1000	14.8	288	445
1119414	14 G2.5		50	100			500	1000	15.8	336	515
1119418	18 G2.5	25	50	100			500	1000	17.8	432	648
1119425	25 G2.5	25	50	100			500	1000	20.8	600	890
1119434	34 G2.5		50	100			500	1000	24.4	816	1208
1119450	50 G2.5		50	100			500		29.4	1200	1754
1119503	3 G4	25	50	100			500	1000	9.9	115	201
1119504	4 G4	25	50	100			500	1000	10.8	154	249
1119505	5 G4	25	50	100			500	1000	12.1	192	294
1119507	7 G4	25	50	100			500	1000	13.4	269	407
1119511	11 G4		50	100			500	1000	17.6	422	634
1119512	12 G4		50	100			500	1000	18.1	461	660
1119603	3 G6	25	50	100			500	1000	11.7	172.8	289
1119604	4 G6	25	50	100			500	1000	13.0	230	365
1119605	5 G6	25	50	100			500	1000	14.5	288	447
1119607	7 G6	25	50	100			500	1000	16.0	403	600
1119613	3 G10	25	50	100			500	1000	14.6	288	466
1119614	4 G10	25	50	100			500	1000	16.2	384	590
1119615	5 G10	25	50	100			500	1000	18.1	480	722
1119617	7 G10	25	50	100			500	1000	20.0	672	968
1119624	4 G16		50	100			500		18.8	614	1087
1119625	5 G16		50	100			500		21.2	768	1370
1119627	7 G16		50	100			500		23.4	1075	1779
1119634	4 G25		50	100			500		23.5	960	1582
1119635	5 G25		50	100			500		26.4	1200	1998
1119636	7 G25		50	100			500		29.1	1680	2825
1119644	4 G35		50	100			500		26.4	1344	2106
1119645	5 G35		50	100			500		29.6	1680	2635

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue 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 52

Accessories

- SKINTOP® CLICK refer to page 715

NEW

ÖLFLEX® CLASSIC 110

VDE-registered oil-resistant PVC control cable with black outer sheath for a wide range of applications

Info

- With black outer sheath, UV-resistant
- VDE certificate of conformity with factory surveillance

Benefits

- Suitable for outdoor applications
- Wide choice of standardized lengths and individual cuts

Application range

- 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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- In power chains for a travelling distance up to 5 m and 0,2 ... 1 million bending cycles, for following dimensions: 0,5 to 2.5mm² and 2 to 7 conductors
- Suitable for outdoor applications

Product features

- Flame-retardant according IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1
- Oil-resistant according to DIN EN 50290-2-22 (TM54)
- UV and weather-resistant according to ISO 4892-2

Norm references / Approvals

- VDE reg. no. 7030 for the following sizes:
  up to 2.5 mm²: 2 - 65 cores
  from 4 mm²: 2 - 7 cores
  from 25 mm²: 2 - 5 cores

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Conductor stranding
Fine wire according to DIN EN 60228 (VDE 0295), class 5 / IEC 60228 class 5

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Occasional flexing: 10 x outer diameter
In power chains: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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
In power chains: -5°C to +70°C
Fixed installation: -40°C to +80°C

Similar products

- ÖLFLEX® CLASSIC 110 LT refer to page 38
- ÖLFLEX® CLASSIC 110 BLACK 0,6/1 kV refer to page 42

Accessories

- SKINTOP® CLICK refer to page 715

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110				
1119809	2 X0.75	5.4	14.4	45
1119871	3 G0.75	5.7	21.6	55
1119892	3 X0.75	5.7	21.6	55
1119872	4 G0.75	6.2	28.8	66
1119893	4 X0.75	6.2	28.8	66
1119873	5 G0.75	6.7	36	79
1119874	7 G0.75	7.3	50.4	101
1119875	12 G0.75	9.9	86.4	171
1119876	18 G0.75	11.7	130	244
1119877	25 G0.75	13.8	180	337
1119878	34 G0.75	15.9	245	448
1119894	2 X1.0	5.7	19.2	53
1119244	3 G1.0	6.0	28.8	65
1119895	3 X1.0	6.0	28.8	65
1119245	4 G1.0	6.5	38.4	79
1119896	4 X1.0	6.5	38.4	79
1119246	5 G1.0	7.1	48	94
1119897	5 X1.0	7.1	48	94
1119247	7 G1.0	8.0	67.2	126
1119248	12 G1.0	10.5	115	205
1119249	18 G1.0	12.7	173	290
1119251	25 G1.0	14.7	240	390
1119252	34 G1.0	17.1	326	551
1119898	2 X1.5	6.3	28.8	68
1119020	3 G1.5	6.7	43.2	84
1119899	3 X1.5	6.7	43.2	84

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1119879	4 G1.5	7.2	57.6	104
1119900	4 X1.5	7.2	57.6	104
1119880	5 G1.5	8.1	72	128
1119911	5 X1.5	8.1	72	128
1119881	7 G1.5	8.9	101	166
1119913	7 X1.5	8.9	101	166
1119882	12 G1.5	12.0	173	279
1119883	18 G1.5	14.4	259	407
1119884	25 G1.5	16.9	360	560
1119914	2 X2.5	7.5	48	100
1119885	3 G2.5	8.1	72	132
1119886	4 G2.5	8.9	96	163
1119887	5 G2.5	10.0	120	200
1119888	7 G2.5	11.1	168	267
1119889	12 G2.5	14.8	288	444
1119890	18 G2.5	17.8	432	648
1119891	25 G2.5	20.8	600	890
1119915	3 G4	9.9	115.2	201
1119916	4 G4	10.8	154	249
1119917	5 G4	12.1	192	315
1119918	4 G6	13.0	230	365
1119919	5 G6	14.5	288	447
1119920	4 G10	16.2	384	590
1119921	5 G10	18.1	480	722
1119922	4 G16	18.8	614	1087
1119923	5 G16	21.2	768	1370

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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® CLASSIC 110 LT

Cold flexible PVC control cable, suitable for low temperatures as well as outdoor use

Info

- Successor of ÖLFLEX CLASSIC 110 COLD, flexible down to -30°C
- UV and weather-resistant according to ISO 4892-2
- Torsion resistant for drip loops

Benefits

- Inexpensive control cable for flexing outdoor use
- 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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

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

Norm references / Approvals

- Based on EN 50525-2-51

Product Make-up

- Fine-wire strand made of bare copper wires
- Core insulation: PVC, cold-resistant
- Cores twisted in layers
- Outer sheath: PVC, cold-resistant, black

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 LT				
1120730	2 X0.75	5.4	14.4	45
1120731	3 X0.75	5.7	21.6	55
1120732	3 G0.75	5.7	21.6	55
1120733	4 X0.75	6.2	28.8	66
1120734	4 G0.75	6.2	28.8	66
1120735	5 G0.75	6.7	36	79
1120736	7 G0.75	7.3	50.4	101
1120737	12 G0.75	9.9	86.4	171
1120738	18 G0.75	11.7	130	244
1120739	25 G0.75	13.8	180	337
1120740	2 X1.0	5.7	19.2	53
1120741	3 X1.0	6.0	28.8	65
1120742	3 G1.0	6.0	28.8	65
1120743	4 X1.0	6.5	38.4	79
1120744	4 G1.0	6.5	38.4	79
1120745	5 G1.0	7.1	48	94
1120746	7 G1.0	8.0	67.2	126
1120747	12 G1.0	10.5	115	205
1120748	18 G1.0	12.7	173	300
1120749	25 G1.0	14.7	240	408
1120750	2 X1.5	6.3	29	68
1120751	3 X1.5	6.7	43	84

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1120752	3 G1.5	6.7	43	84
1120753	4 X1.5	7.2	58	104
1120754	4 G1.5	7.2	58	104
1120755	5 X1.5	8.1	72	128
1120756	5 G1.5	8.1	72	128
1120757	7 X1.5	8.9	101	166
1120758	7 G1.5	8.9	101	166
1120759	12 G1.5	12.0	173	279
1120760	18 G1.5	14.4	259	407
1120761	25 G1.5	16.9	360	560
1120762	2 X2.5	7.5	48	101
1120763	3 G2.5	8.1	72	132
1120764	4 G2.5	8.9	96	163
1120765	5 G2.5	10.0	120	200
1120766	7 G2.5	11.1	168	267
1120767	12 G2.5	14.8	288	445
1120768	18 G2.5	17.8	432	648
1120769	25 G2.5	20.8	600	890
1120770	4 G4	10.8	154	249
1120771	5 G4	12.1	192	305
1120772	4 G6	13.0	230	365
1120773	5 G6	14.5	288	447

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 H refer to page 64
- ÖLFLEX® ROBUST 210 refer to page 73

Accessories

- FLEXIMARK® Stainless steel kit refer to page 956
- SKINTOP® MS-M refer to page 724
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Orange cores with black numbers

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 ORANGE				
0019700	2 X1.0	5.7	19.2	53
0019701	3 G1.0	6.0	28.8	65
0019702	3 X1.0	6.0	28.8	65
0019706	4 G1.0	6.5	38.4	80
0019708	4 X1.0	6.5	38.4	80
0019709	5 G1.0	7.1	50	95
0019710	2 X1.5	6.3	29	68
0019711	3 G1.5	6.7	43	85
0019718	4 G1.5	7.2	58	105
0019720	5 G1.5	8.1	72	128

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H07V-K <HAR> refer to page 207
- Orange-coloured single cores

Accessories

- SKINTOP® CLICK refer to page 715

ÖLFLEX® CLASSIC 110 CY

Screened PVC control cable with transparent outer sheath

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 IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1
- High degree of screening
  low transfer impedance
  (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- VDE reg. no. 7030

Product Make-up

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

Info

- EMC-compliant
- VDE reg. no. 7030

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 CY				
1135752	2 X0.5	7.0	41	75
1135003	3 G0.5	7.3	45.5	83
1135753	3 X0.5	7.3	45.5	83
1135004	4 G0.5	7.9	55	99
1135754	4 X0.5	7.9	55	99
1135005	5 G0.5	8.4	66	112
1135755	5 X0.5	8.4	66	112
1135007	7 G0.5	8.9	80.5	132
1135757	7 X0.5	8.9	80.5	132
1135012	12 G0.5	11.3	138.5	202
1135762	12 X0.5	11.3	138.5	202
1135018	18 G0.5	13.3	156.4	289
1135025	25 G0.5	15.2	250	378
1135030	30 G0.5	16.1	297	429
1135040	40 G0.5	18.2	343	542
1135802	2 X0.75	7.4	46	86
1135103	3 G0.75	7.9	57.9	100
1135803	3 X0.75	7.9	57.9	100
1135104	4 G0.75	8.4	64	115
1135804	4 X0.75	8.4	64	115
1135105	5 G0.75	8.9	77.4	130
1135805	5 X0.75	8.9	77.4	130
1135107	7 G0.75	9.7	102	161
1135807	7 X0.75	9.7	102	161
1135112	12 G0.75	12.3	177	247
1135812	12 X0.75	12.3	177	247
1135118	18 G0.75	14.5	243	356
1135818	18 X0.75	14.5	243	356
1135125	25 G0.75	16.6	307.3	465
1135134	34 G0.75	18.9	323.2	601
1135840	40 X0.75	20.5	369.4	734
1135141	41 G0.75	20.6	488	728
1135852	2 X1.0	7.9	56	98
1135203	3 G1.0	8.2	65.3	111
1135853	3 X1.0	8.2	65.3	111
1135204	4 G1.0	8.7	78.1	130
1135854	4 X1.0	8.7	78.1	130
1135205	5 G1.0	9.5	89.4	153
1135207	7 G1.0	10.2	113.3	185
1135212	12 G1.0	13.3	188.1	307
1135216	16 G1.0	14.6	216	390
1135218	18 G1.0	15.5	286	418
1135225	25 G1.0	17.5	388.5	544

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1135234	34 G1.0	20.3	505	738
1135241	41 G1.0	22.0	578	864
1135250	50 G1.0	23.8	688	1011
1135902	2 X1.5	8.5	65	117
1135303	3 G1.5	8.9	83	136
1135903	3 X1.5	8.9	83	136
1135304	4 G1.5	9.6	100	163
1135904	4 X1.5	9.6	100	163
1135305	5 G1.5	10.3	125	188
1135905	5 X1.5	10.3	125	188
1135307	7 G1.5	11.3	149	237
1135907	7 X1.5	11.3	149	237
1135312	12 G1.5	14.8	280	393
1135318	18 G1.5	17.2	389	538
1135325	25 G1.5	20.1	535	745
1135334	34 G1.5	22.8	702	964
1135341	41 G1.5	24.7	844.6	1123
1135350	50 G1.5	27.1	1006	1372
1135402	2 X2.5	9.9	112	165
1135403	3 G2.5	10.3	146	192
1135404	4 G2.5	11.3	167	233
1135405	5 G2.5	12.6	200	283
1135407	7 G2.5	13.9	288	371
1135412	12 G2.5	17.6	477.3	585
1135502	2 X4	11.4	120	247
1135504	4 G4	13.4	237	347
1135505	5 G4	14.7	280	413
1135602	2 X6	13.6	180	353
1135604	4 G6	15.8	318	485
1135605	5 G6	17.3	441	702
1135607	7 G6	18.8	530	950
1135702	2 X10	16.4	256	492
1135615	3 G10	17.4	362.4	507
1135614	4 G10	19.0	518	735
1135616	5 G10	21.3	595	847
1135617	7 G10	23.2	796	1039
1135622	2 X16	18.6	390	698
1135624	4 G16	22.2	804	1395
1135623	5 G16	24.4	935	1440
1135626	4 G25	26.9	1161	1730
1135627	5 G25	30.0	1400	2090
1135625	4 G35	30.2	1543	2210
1135628	5 G35	33.2	1901	2710

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

ÖLFLEX® CLASSIC 110 SY

Steel-wire braided PVC control cable with transparent outer sheath

Info

- Steel wire braiding for extra mechanical protection
- 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 IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1

Norm references / Approvals

- VDE reg. no. 7030

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 SY				
1125752	2 X0.5	7.8	10	87
1125003	3 G0.5	8.1	15	95
1125004	4 G0.5	8.5	19.2	107
1125005	5 G0.5	9.2	24	123
1125007	7 G0.5	9.7	33.6	147
1125010	10 G0.5	11.6	48	196
1125012	12 G0.5	11.9	58	213
1125014	14 G0.5	12.5	67	237
1125018	18 G0.5	13.9	86.4	291
1125021	21 G0.5	14.9	101	332
1125025	25 G0.5	15.6	120	375
1125030	30 G0.5	16.5	144	422
1125040	40 G0.5	18.8	192	545
1125061	61 G0.5	21.9	293	773
1125802	2 X0.75	8.2	14.4	97
1125103	3 G0.75	8.5	21.6	108
1125104	4 G0.75	9.2	28.8	126
1125105	5 G0.75	9.7	36	146
1125107	7 G0.75	10.3	50	172
1125109	9 G0.75	12.4	65	224
1125112	12 G0.75	12.9	86	260
1125115	15 G0.75	14.1	108	315
1125118	18 G0.75	14.9	130	355
1125125	25 G0.75	17.0	180	465
1125134	34 G0.75	19.3	245	596
1125150	50 G0.75	22.8	360	832
1125852	2 X1.0	8.5	19.2	106
1125203	3 G1.0	8.8	28.8	119
1125204	4 G1.0	9.5	38.4	141
1125205	5 G1.0	10.1	48	164
1125207	7 G1.0	11.0	67	200
1125208	8 G1.0	12.5	77	234
1125209	9 G1.0	13.2	86	260
1125212	12 G1.0	13.9	115	309
1125214	14 G1.0	14.4	134	345
1125218	18 G1.0	15.9	173	415
1125220	20 G1.0	16.8	192	455

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1125225	25 G1.0	18.1	240	548
1125234	34 G1.0	20.5	326	714
1125241	41 G1.0	22.2	394	832
1125250	50 G1.0	24.2	480	987
1125902	2 X1.5	9.3	29	128
1125303	3 G1.5	9.7	43	151
1125304	4 G1.5	10.2	58	173
1125305	5 G1.5	11.1	72	202
1125307	7 G1.5	11.9	101	248
1125308	8 G1.5	14.0	115	301
1125312	12 G1.5	15.4	173	396
1125314	14 G1.5	15.9	202	438
1125318	18 G1.5	17.6	259	538
1125325	25 G1.5	20.3	360	713
1125332	32 G1.5	22.1	461	876
1125350	50 G1.5	27.1	720	1305
1125403	3 G2.5	11.1	72	206
1125404	4 G2.5	12.1	96	249
1125405	5 G2.5	13.2	120	295
1125407	7 G2.5	14.3	168	373
1125412	12 G2.5	18.2	288	586
1125418	18 G2.5	21.4	432	823
1125425	25 G2.5	24.4	600	1093
1125503	3 G4	12.7	115	285
1125504	4 G4	14.0	154	348
1125505	5 G4	15.1	192	410
1125507	7 G4	16.4	269	519
1125604	4 G6	16.2	230	482
1125605	5 G6	17.7	288	579
1125607	7 G6	19.2	403	740
1125614	4 G10	19.4	384	731
1125615	5 G10	21.5	480	889
1125617	7 G10	23.4	672	1146
1125624	4 G16	22.4	614	1384
1125625	5 G16	24.6	768	1740
1125626	4 G25	26.9	960	1680
1125630	5 G25	30.0	1200	2050
1125629	4 G35	30.2	1344	2170

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

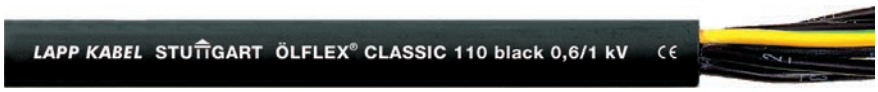
Similar products

- ÖLFLEX® CLASSIC 100 SY refer to page 31

Accessories

- SKINTOP® MS-M refer to page 724
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

ÖLFLEX® CLASSIC 110 BLACK 0,6/1 kV



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
- Enhanced suitability for direct burial in ground
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Product features

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

Norm references / Approvals

- Based on VDE 0250-1 and HD 627-1 S1

Product Make-up

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

Info

- Good outdoor performance

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 4/15xOD*

Nominal voltage
U_0/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 X0.75	8.3	14.4	81
1120233	3 G0.75	8.7	21.6	93
1120234	3 X0.75	8.7	21.6	93
1120235	4 G0.75	9.2	29	108
1120237	5 G0.75	9.9	36	126
1120241	7 G0.75	10.7	51	162
1120248	12 G0.75	13.4	86	236
1120251	18 G0.75	15.4	130	334
1120259	41 G0.75	21.6	296	713
1120266	2 X1.0	8.6	19.2	98
1120267	3 G1.0	9.0	29	112
1120268	3 X1.0	9.0	29	112
1120269	4 G1.0	9.6	38.4	131
1120270	4 X1.0	9.6	38.4	131
1120271	5 G1.0	10.4	48	152
1120274	7 G1.0	11.1	67	196
1120280	12 G1.0	14.0	116	286
1120284	18 G1.0	16.1	173	419
1120290	25 G1.0	18.6	240	572
1120294	34 G1.0	21.3	326	764
1120298	41 G1.0	23.2	394	891
1120306	2 X1.5	9.6	29	123
1120307	3 G1.5	10.1	43	144
1120308	3 X1.5	10.1	43	144
1120309	4 G1.5	10.8	58	170
1120311	5 G1.5	11.7	72	199
1120314	7 G1.5	12.6	101	261
1120320	12 G1.5	16.1	173	399
1120322	14 G1.5	17.0	202	448
1120324	18 G1.5	18.8	259	547
1120328	25 G1.5	21.7	360	770

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1120330	34 G1.5	24.9	490	996
1120333	50 G1.5	29.8	720	1427
1120339	2 X2.5	10.8	48	147
1120340	3 G2.5	11.3	72	182
1120342	4 G2.5	12.2	96	225
1120343	4 X2.5	12.2	96	225
1120344	5 G2.5	13.3	120	266
1120346	7 G2.5	14.4	168	354
1120349	12 G2.5	18.7	288	540
1120350	14 G2.5	19.8	336	542
1120351	18 G2.5	22.0	432	788
1120353	25 G2.5	25.8	600	1094
1120360	4 G4	13.8	154	324
1120361	5 G4	15.1	192	385
1120362	7 G4	16.4	269	513
1120366	4 G6	15.1	230	442
1120367	5 G6	16.8	288	526
1120368	7 G6	18.2	403	705
1120370	4 G10	18.7	384	707
1120371	5 G10	20.7	480	881
1120374	4 G16	21.3	614	1100
1120375	5 G16	23.6	768	1600
1120376	7 G16	26.2	1075	1890
1120378	4 G25	26.2	960	1600
1120379	5 G25	29.0	1200	2050
1120382	4 G35	29.1	1344	2400
1120383	5 G35	32.5	1680	2900
1120385	4 G50	35.6	1920	3400
1120387	4 G70	40.7	2688	5050
1120389	4 G95	46.8	3648	6010
1120390	4 G120	53.5	4608	7500

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

Similar products

- ÖLFLEX® CLASSIC 100 BK 0,6/1 kV refer to page 32
- ÖLFLEX® CLASSIC 130 H BK 0,6/1 kV refer to page 69

Accessories

- SKINTOP® MS-M refer to page 724
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726
- KT cable shears refer to page 999

ÖLFLEX® CLASSIC 110 CY BLACK 0,6/1 kV

Info

- Good outdoor performance
- EMC/Screened

Application range

- Plant engineering
  Industrial machinery
  Heating and air-conditioning systems
  Power stations
- For frequency converter-powered 3-phase 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
- Enhanced suitability for direct burial in ground

Product features

- Flame-retardant according 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)

Norm references / Approvals

- Based on VDE 0250-1 and HD 627-1 S1

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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

Minimum bending radius
Static/Occ. moved: 6/20xOD*

Nominal voltage
U_0/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 X0.75	10.5	46	183
1121233	3 G0.75	10.9	56	210
1121235	4 G0.75	11.4	67	238
1121236	4 X0.75	11.4	67	238
1121237	5 G0.75	12.1	78	272
1121241	7 G0.75	12.9	97	315
1121247	12 G0.75	15.8	168	464
1121251	18 G0.75	18.0	229	616
1121254	25 G0.75	20.7	296	762
1121266	2 X1.0	10.8	52	198
1121267	3 G1.0	11.2	66	228
1121268	3 X1.0	11.2	66	228
1121269	4 G1.0	11.8	79	261
1121270	4 X1.0	11.8	79	261
1121271	5 G1.0	12.6	93	300
1121274	7 G1.0	13.3	117	335
1121280	12 G1.0	16.4	204	522
1121284	18 G1.0	18.7	280	687
1121290	25 G1.0	21.6	369	884
1121306	2 X1.5	11.8	69	243
1121307	3 G1.5	12.3	87	273
1121308	3 X1.5	12.3	87	273
1121309	4 G1.5	13.0	102	290
1121310	4 X1.5	13.0	102	290

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1121311	5 G1.5	13.9	125	352
1121314	7 G1.5	15.0	180	448
1121320	12 G1.5	18.7	281	690
1121324	18 G1.5	21.8	391	938
1121328	25 G1.5	25.1	518	1180
1121340	3 G2.5	13.5	123	354
1121342	4 G2.5	14.6	168	413
1121344	5 G2.5	15.7	204	515
1121346	7 G2.5	17.0	265	619
1121349	12 G2.5	21.7	421	936
1121360	4 G4	16.2	238	587
1121361	5 G4	17.7	302	689
1121362	7 G4	19.0	396	828
1121367	4 G6	17.7	318	715
1121368	5 G6	19.2	419	862
1121372	4 G10	21.7	574	875
1121373	5 G10	23.0	612	1037
1121377	4 G16	24.3	809	1198
1121378	5 G16	26.7	935	1500
1121381	4 G25	29.8	1165	1814
1121385	4 G35	32.7	1683	2893
1121388	4 G50	39.6	2368	4094
1121391	4 G70	44.5	3261	5467
1121394	4 G95	51.0	4055	5849
1121397	4 G120	58.1	5225	7509

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

Similar products

- ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV refer to page 70

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® CLASSIC 115 CY

Screened PVC control cable with small outer diameter

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 IEC 60332-1-2
- Good chemical resistance, see catalogue appendix T1
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- Based on EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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

Similar products

- ÖLFLEX® ROBUST 215 C refer to page 74
- ÖLFLEX® CLASSIC 110 CY refer to page 40

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- 3M Scotch™ 1183 screening tape refer to page 1044
- SKINTOP® MS-M BRUSH refer to page 733

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 115 CY				
1136752	2 X0.5	5.8	36	45
1136003	3 G0.5	6.1	43	59
1136753	3 X0.5	6.1	43	59
1136004	4 G0.5	6.5	49	71
1136754	4 X0.5	6.5	49	71
1136005	5 G0.5	7.0	57	86
1136755	5 X0.5	7.0	57	86
1136007	7 G0.5	7.5	69	105
1136757	7 X0.5	7.5	69	105
1136012	12 G0.5	9.9	104	200
1136762	12 X0.5	9.9	104	200
1136018	18 G0.5	11.5	141	275
1136768	18 X0.5	11.5	141	275
1136025	25 G0.5	13.4	211	350
1136775	25 X0.5	13.4	211	350
1136802	2 X0.75	6.2	43	56
1136103	3 G0.75	6.5	52	70
1136803	3 X0.75	6.5	52	70
1136104	4 G0.75	7.0	61	95
1136804	4 X0.75	7.0	61	95
1136105	5 G0.75	7.7	72	108
1136805	5 X0.75	7.7	72	108
1136107	7 G0.75	8.3	89	127
1136807	7 X0.75	8.3	89	127
1136112	12 G0.75	10.9	138	232
1136118	18 G0.75	12.7	211	315
1136125	25 G0.75	14.8	280	435
1136825	25 X0.75	14.8	280	435
1136852	2 X1.0	6.5	51	71
1136203	3 G1.0	6.8	62	86
1136853	3 X1.0	6.8	62	86
1136204	4 G1.0	7.3	74	98
1136854	4 X1.0	7.3	74	98
1136205	5 G1.0	8.1	88	121
1136855	5 X1.0	8.1	88	121

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1136207	7 G1.0	8.8	112	147
1136857	7 X1.0	8.8	112	147
1136212	12 G1.0	11.5	185	285
1136218	18 G1.0	13.9	268	395
1136225	25 G1.0	15.9	354	486
1136902	2 X1.5	7.1	65	86
1136303	3 G1.5	7.5	82	112
1136903	3 X1.5	7.5	82	112
1136304	4 G1.5	8.2	100	135
1136904	4 X1.5	8.2	100	135
1136305	5 G1.5	8.9	119	148
1136905	5 X1.5	8.9	119	148
1136307	7 G1.5	9.9	154	192
1136907	7 X1.5	9.9	154	192
1136312	12 G1.5	13.0	268	365
1136318	18 G1.5	15.6	373	520
1136325	25 G1.5	17.9	530	734
1136334	34 G1.5	20.8	683	944
1136403	3 G2.5	8.9	118	151
1136404	4 G2.5	9.9	147	188
1136405	5 G2.5	11.0	176	270
1136407	7 G2.5	11.9	253	340
1136412	12 G2.5	16.0	355	540
1136418	18 G2.5	19.0	569	782
1136425	25 G2.5	22.2	827	1358
1136504	4 G4	11.6	248	305
1136507	7 G4	14.4	355	500
1136604	4 G6	14.2	343	440
1136607	7 G6	17.0	505	672
1136614	4 G10	17.2	495	680
1136615	5 G10	19.5	592	824
1136624	4 G16	20.2	800	1050
1136625	5 G16	22.6	895	1285
1136634	4 G25	25.1	1075	1413
1136635	5 G25	28.0	1400	1976
1136638	4 G35	28.0	1576	2070

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

LAPP KABEL STUTTGART
ÖLF
ÖLFLEX CLASSIC 110
12 G 1,5
VDE-Reg. -Nr. 7030
ÖLFLEX SERVO FD 796 CP
RDHS

ÖLFLEX® EB

Control cable for intrinsically safe circuits according to IEC 60079-14 / EN 60079-14 / VDE 0165-1

Info

- For use within intrinsically safe circuits - type of protection 'i'

Benefits

- Space-saving installation due to small cable diameters

Application range

- For intrinsically safe circuits (type of protection i - intrinsic safety) according to IEC 60079-14:2013 / EN 60079-14:2014 / VDE 0165-1:2014, section 16.2.2

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- Based on EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Mutual capacitance
Core/core approx. 140 nF/km

Inductivity
approx. 0.52 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
U_0/U: 300/500 V

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	80
0012402	3 X 1.5	6.7	43	105
0012403	4 X 1.5	7.2	58	125
0012404	5 X 1.5	8.1	72	139
ÖLFLEX® EB with protective conductor GN/YE				
0012501	3 G 1.5	6.7	43	105
0012502	4 G 1.5	7.2	58	125
0012503	5 G 1.5	8.1	72	139
0012504	7 G 1.5	8.9	101	180
0012505	12 G 1.5	12.0	173	339
0012506	18 G 1.5	14.4	259	513
0012507	25 G 1.5	16.9	360	698

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- UNITRONIC® EB CY (TP) refer to page 283

Accessories

- FLEXIMARK® Stainless steel kit refer to page 956
- SKINTOP® K-M ATEX plus blue refer to page 723

ÖLFLEX® EB CY

Control cable for intrinsically safe circuits according to IEC 60079-14 / EN 60079-14 / VDE 0165-1

Info

- For use within intrinsically safe circuits - type of protection 'i'
- 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

- For intrinsically safe circuits (type of protection i - intrinsic safety) according to IEC 60079-14:2013 / EN 60079-14:2014 / VDE 0165-1:2014, section 16.2.2
- In EMC-sensitive environments (electromagnetic compatibility)

Product features

- Flame-retardant according IEC 60332-1-2
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- Based on EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Mutual capacitance
Core/core approx. 160 nF/km
Core/screen approx. 250 nF/km

Inductivity
approx. 0.52 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
U_0/U: 300/500 V

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 mm² 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	56
0012641	3 X 0.75	6.5	52	70
0012642	4 X 0.75	7.0	61	95
0012643	5 X 0.75	7.7	72	108
0012644	7 X 0.75	8.3	89	168
0012645	12 X 0.75	10.9	138	216
0012646	18 X 0.75	12.7	211	315
0012647	25 X 0.75	14.8	280	435
0012650	2 X 1.0	6.5	51	84
0012651	3 X 1.0	6.8	62	110
0012652	5 X 1.0	8.1	88	156
0012653	7 X 1.0	8.8	112	192
0012654	12 X 1.0	11.5	185	285
0012655	18 X 1.0	13.9	268	395
0012656	25 X 1.0	15.9	354	656
0012660	2 X 1.5	7.1	65	87
0012661	3 X 1.5	7.5	82	112
0012662	5 X 1.5	8.9	119	148
0012663	7 X 1.5	9.9	154	193
0012664	12 X 1.5	13.0	268	365
0012666	25 X 1.5	17.9	530	734

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.

Similar products

- UNITRONIC® EB CY (TP) refer to page 283

Accessories

- 3M Scotch™ 1183 screening tape refer to page 1044
- SKINTOP® K-M ATEX plus blue refer to page 723

ÖLFLEX® 140*

H05VV5-F (EN 50525-2-51)

Info

- Oil-resistant according to EN 50363-4-1: TM5
- Harmonised (HAR): H05VV5-F

Benefits

- High acceptance in Europe due to Harmonisation

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 IEC 60332-1-2
- Oil-resistant according to EN 50363-4-1: TM5

Norm references / Approvals

- EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
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 +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	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	198
0011004	18 G 0.5	12.3 - 15.3	86.4	266.9
0011005	25 G 0.5	14.8 - 18.3	120	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	113.3
0011011	7 G 0.75	9.0 - 11.3	50	145
0011012	12 G 0.75	11.0 - 13.7	86	244.9
0011013	18 G 0.75	13.2 - 16.4	130	327.7
0011014	25 G 0.75	15.8 - 19.5	180	466.4
0011015	34 G 0.75	18.4 - 22.6	245	626.5
0011241	41 G 0.75	20.1 - 24.7	296	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	132.1
0011020	7 G 1.0	9.5 - 11.8	67	169.3

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0011021	12 G 1.0	11.8 - 14.6	115	285.9
0011022	18 G 1.0	14.0 - 17.2	173	405.2
0011023	25 G 1.0	16.8 - 20.7	240	569.5
0011024	34 G 1.0	19.6 - 24.0	326	741.7
0011341	41 G 1.0	21.4 - 26.2	394	886
0011027	3 G 1.5	7.4 - 9.4	43	109.8
0011404	4 G 1.5	8.2 - 10.2	58	140.7
0011028	5 G 1.5	9.1 - 11.4	72	175
0011029	7 G 1.5	11.3 - 14.1	101	224.2
0011030	12 G 1.5	13.8 - 17.0	173	361.7
0011031	18 G 1.5	16.5 - 20.3	259	518.3
0011032	25 G 1.5	19.8 - 24.3	360	729.9
0011033	34 G 1.5	23.1 - 28.2	490	946.6
0011036	3 G 2.5	9.0 - 11.2	72	162.4
0011504	4 G 2.5	10.1 - 12.5	96	203.3
0011037	5 G 2.5	11.0 - 13.7	120	251.1
0011038	7 G 2.5	13.6 - 16.8	168	326
0011039	12 G 2.5	16.8 - 20.6	288	553.3
0011045	14 G 2.5	18.3 - 22.7	336	611
0011040	18 G 2.5	20.2 - 24.8	432	795.2
0011041	25 G 2.5	24.2 - 29.6	600	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
* Trade product, no Lapp product
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 150 refer to page 50

Accessories

- SKINTOP® CLICK refer to page 715

ÖLFLEX® 140 CY*

H05VVC4V5-K (EN 50525-2-51)

Info

- Oil-resistant according to EN 50363-4-1: TM5
- Harmonised (HAR): H05VVC4V5-K and EMC compliant

Benefits

- High acceptance in Europe due to Harmonisation

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 IEC 60332-1-2
- Oil-resistant according to EN 50363-4-1: TM5
- High degree of screening
  low transfer impedance
  (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- EN 50525-2-51

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
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 +70°C

Article number	Number of cores and mm² 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	111.3
0035701	4 G 0.5	8.5 - 10.7	58	132.7
0035702	5 G 0.5	9.3 - 11.6	69	162.7
0035703	7 G 0.5	10.8 - 13.5	86	207.7
0035704	12 G 0.5	13.1 - 16.2	142	295
0035710	3 G 0.75	8.3 - 10.4	55	129.4
0035711	4 G 0.75	9.1 - 11.3	67	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	246.9
0035714	12 G 0.75	13.8 - 17.1	166	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	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	209

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0035723	7 G 1.0	12.2 - 15.1	118	273
0035724	12 G 1.0	14.5 - 17.9	198	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	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	261.8
0035733	7 G 1.5	14.1 - 17.4	218	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	241.5
0035741	4 G 2.5	12.6 - 15.5	163	298.3
0035742	5 G 2.5	13.9 - 17.2	191	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
* Trade product, no Lapp product
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 150 CY refer to page 51

Accessories

- KMK Label holders refer to page 989
- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® 150

Oil resistant multi-standard cable with H05VV5-F and AWM approval

Info

- Oil-resistant according to EN 50363-4-1: TM5
- Harmonised (HAR): H05VV5-F and UL recognized

Benefits

- Wide application range due to multiple certifications

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. 2015: 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 EN 50363-4-1: TM5

Norm references / Approvals

- H05VV5-F (EN 50525-2-51)
- UL AWM Style 21098
  CSA AWM I A/B II A/B
- 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.

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 150				
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	87.1
0015007	7 G 0.5	9.0	33.6	118.7
0015012	12 G 0.5	11.1	58	198
0015018	18 G 0.5	13.2	86.4	328
0015025	25 G 0.5	16.0	120	380.4
0015034	34 G 0.5	18.1	164	509
0015041	41 G 0.5	19.7	197	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	113.3
0015107	7 G 0.75	9.9	50	145
0015112	12 G 0.75	12.0	86	244.9
0015118	18 G 0.75	14.4	130	327.7
0015125	25 G 0.75	17.1	180	466.4
0015134	34 G 0.75	19.7	245	626.5
0015141	41 G 0.75	21.6	296	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	132.1
0015206	6 G 1.0	9.5	57.6	150

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0015207	7 G 1.0	10.4	67	169.3
0015212	12 G 1.0	12.8	115	285.9
0015218	18 G 1.0	15.1	173	405.2
0015225	25 G 1.0	18.0	240	569.5
0015234	34 G 1.0	20.9	326	741.7
0015241	41 G 1.0	22.8	394	886
0015250	50 G 1.0	25.0	480	1072.2
0015302	2 X 1.5	7.6	28.8	95
0015303	3 G 1.5	8.3	43	109.8
0015304	4 G 1.5	9.0	58	145
0015305	5 G 1.5	10.1	72	168
0015307	7 G 1.5	12.5	101	224.2
0015312	12 G 1.5	15.1	173	361.7
0015318	18 G 1.5	18.0	259	518.3
0015325	25 G 1.5	21.4	360	729.9
0015334	34 G 1.5	25.0	490	946.6
0015341	41 G 1.5	27.2	591	1136
0015402	2 X 2.5	9.2	48	159
0015403	3 G 2.5	9.9	72	170
0015404	4 G 2.5	10.8	96	210
0015405	5 G 2.5	12.1	120	257
0015407	7 G 2.5	14.7	168	340
0015412	12 G 2.5	17.9	288	580
0015418	18 G 2.5	21.6	432	850
0015425	25 G 2.5	25.6	600	1166

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 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* refer to page 48
- ÖLFLEX® 191 refer to page 52

Accessories

- SKINTOP® CLICK refer to page 715
- SKINTOP® ST-M refer to page 712

ÖLFLEX® 150 CY

Screened and oil-resistant multi-standard cable with H05VVC4V5-K and AWM approval

Info

- Oil-resistant according to EN 50363-4-1: TM5
- Harmonised (HAR): H05VVC4V5-K and UL recognized
- EMC-compliant

Benefits

- Wide application range due to multiple certifications

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. 2015: 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 EN 50363-4-1: TM5
- High degree of screening
  low transfer impedance
  (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- H05VVC4V5-K (EN 50525-2-51)
- UL AWM Style 21098
  CSA AWM I A/B II A/B
- 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.

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 150 CY				
0015602	2 X 0.75	8.5	40	109
0015603	3 G 0.75	8.9	51	125
0015604	4 G 0.75	9.6	70	157
0015605	5 G 0.75	10.3	77	180
0015607	7 G 0.75	12.3	93	226
0015612	12 G 0.75	14.8	155	325
0015702	2 X 1.0	8.8	46.4	121
0015703	3 G 1.0	9.4	76	145
0015704	4 G 1.0	10.0	80	180
0015705	5 G 1.0	11.0	95	203
0015707	7 G 1.0	13.0	118	273

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0015712	12 G 1.0	15.6	195	425
0015802	2 X 1.5	10.0	59.2	151
0015803	3 G 1.5	10.5	84	159
0015804	4 G 1.5	11.4	94.8	211
0015805	5 G 1.5	12.7	122	241
0015807	7 G 1.5	15.1	143	306
0015812	12 G 1.5	17.8	254	480
0015903	3 G 2.5	11.9	120	245
0015904	4 G 2.5	13.2	170	295
0015905	5 G 2.5	14.7	205	365
0015907	7 G 2.5	17.5	241	480

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 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 49
- ÖLFLEX® 191 CY refer to page 53

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® 191

Oil-resistant multi-standard cable with AWM approval

Info

- Conductor cross-section up to 120 mm²
- Further items with 0,5 and 0,75 mm²: see ÖLFLEX® 150
- Oil-resistant according to EN 50363-4-1: TM5

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. 2015: 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 EN 50363-4-1: TM5

Norm references / Approvals

- UL AWM Style 21098
  CSA AWM I A/B II A/B
- 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.

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 U_0/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: -5°C to +70°C
UL/CSA: -5°C to +90°C
Fixed installation: -40°C to +70°C
UL/CSA: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 191				
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
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	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	413
0011136	2 X 1.5	6.9	28.8	74
0011137	3 G 1.5	7.3	44	91
0011138	4 G 1.5	8.2	58	112
0011139	5 G 1.5	9.0	72	136
0011140	7 G 1.5	10.0	101	179
0011125	9 G 1.5	12.6	129.6	230
0011142	12 G 1.5	13.4	173	313
0011143	18 G 1.5	16.1	260	444
0011144	25 G 1.5	19.5	360	620
0011150	3 G 2.5	8.4	72	138
0011151	4 G 2.5	9.1	96	182
0011152	5 G 2.5	10.2	120	216
0011153	7 G 2.5	11.3	168	286
0011160	3 G 4	9.9	115.2	202
0011161	4 G 4	10.8	154	245
0011162	5 G 4	12.1	192	310
0011167	7 G 4	13.4	268.8	470
0011165	4 G 6	13.0	231	398
0011166	5 G 6	14.5	288	479
0011169	4 G 10	16.5	384	559
0011170	5 G 10	18.4	480	782
0011172	4 G 16	22.1	615	904
0011173	5 G 16	24.3	768	1171
0011175	4 G 25	25.2	960	1299
0011176	5 G 25	28.0	1200	1640
0011178	4 G 35	28.1	1344	2119
0011179	5 G 35	31.5	1680	2606
0011205	4 G 50	35.7	1920	2898
0011206	4 G 70	43.0	2688	4052
0011207	4 G 95	47.2	3648	5430
0011208	4 G 120	51.0	4608	6290

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 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 refer to page 50
- ÖLFLEX® CONTROL TM refer to page 54
- ÖLFLEX® TRAY II refer to page 58

Accessories

- SKINTOP® CLICK refer to page 715
- SKINTOP® ST-M refer to page 712
- KT cable shears refer to page 999

ÖLFLEX® 191 CY

Screened and oil-resistant multi-standard cable with AWM approval

Info

- Conductor cross-section up to 120 mm²
- Further items with 0,75 mm²: see ÖLFLEX® 150 CY
- Oil-resistant according to EN 50363-4-1: TM5

Benefits

- High electrical performance due to 4 kV test voltage
- Multifunctional application possibilities

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. 2015: 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 EN 50363-4-1: TM5
- High degree of screening
  low transfer impedance
  (max. 250 Ω/km at 30 MHz)

Norm references / Approvals

- UL AWM Style 21098
  CSA AWM I A/B II A/B
- 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.

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 U_0/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: -5°C to +70°C
UL/CSA: -5°C to +90°C
Fixed installation: -40°C to +70°C
UL/CSA: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 191 CY				
0011234	7 G 0.75	10.5	85.9	187
0011202	2 X 1.0	8.4	48	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	10.3	89.4	183
0011183	7 G 1.0	11.2	99.9	207
0011184	12 G 1.0	14.6	175.7	342
0011185	18 G 1.0	17.0	241.7	472
0011186	25 G 1.0	20.1	341.7	648
0011302	2 X 1.5	9.0	64.7	156
0011187	3 G 1.5	9.6	89.1	166
0011188	4 G 1.5	10.3	96.6	191
0011189	5 G 1.5	11.3	111.2	222
0011190	7 G 1.5	12.1	145.2	270
0011191	12 G 1.5	16.1	257	464
0011192	18 G 1.5	18.7	382.8	679
0011193	25 G 1.5	23.0	546.2	952
0011194	3 G 2.5	10.8	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	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	28.7	1165	1692
30010928	4 G 35	32.0	1683	2700
3026535	4 G 50	39.7	2342	3362
3025946	4 G 70	44.8	3229	4490
3025947	4 G 95	50.0	4010	5540
3026536	4 G 120	55.4	5012	6960

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 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 refer to page 51
- ÖLFLEX® CONTROL TM CY refer to page 56
- ÖLFLEX® TRAY II CY refer to page 60

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733
- KT cable shears refer to page 999

ÖLFLEX® CONTROL TM

ÖLFLEX® Control Cable PVC, 0.6/1kV, UL TC-ER/WTTC/AWM20886/WET/OIL RES, CSA AWM

Info

- Torsion resistant for drip loops
- Wide application range (NFPA 70/NEC)/ compliance with NFPA 79 for industrial machinery
- (UL) SUN. RES. approval in preparation

Benefits

- Wide application range due to multiple certifications
- 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 (WTTC)
- According to NEC/ NFPA 70 (2014), ARTICLE 501, for hazardous Class I, Division 2 locations determined in NEC ARTICLE 500

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 75°C wet rating
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Suitable for outdoor use thanks to technical UV and ozone resistance

Norm references / 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.
- UL cable type certifications for US use:
  - (UL) TC-ER per UL 1277 [UL file no.: E171371];
  - (UL) MTW per UL 1063 [UL file no.: E155920];
  - (UL) WTTC per UL 2277 [UL file no.: E323700];
  - UL AWM styles 2587 & 21098 (Oil) per UL 758 [UL file no.: E100338].

  Attributes:
  - UL OIL RES I/ II;
  - 75°C Wet, 90°C Dry;
  - Technically sunlight resistant (not SUN. RES. certified);
  - Direct burial;
  - Bus Drop Cable (2.5 mm²/ 14 AWG and larger, 3-core and 4-core versions only);
  - NFPA 79 2015 Edition;
  - FT4 flame retardance.

  NEC (NFPA 70):
  - Class 1, Division 2 per NEC Article 501.

  UL and CSA cable type certifications for use in Canada:
  - c(UL) CIC/ TC FT4 [UL file no.: E171371];
  - CSA AWM I/II A/B FT1;
  - CSA C22.2 210.2.

  Additionally:
  - Impact and Crush test per UL 1277 (excluding 0.75 mm²)

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Outer jacket: Specially Formulated Thermoplastic Polymer
- Color of the outer jacket: Gray

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine-wire, bare copper strand

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/15xOD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL/CSA: 1000 V (AWM)
VDE U_0/U: 600/1000 V

Test voltage
2000 V

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

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² 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	112
281807	7 G 1.0	9.3	67	144
281812	12 G 1.0	12.0	115	247
281818	18 G 1.0	14.7	173	365
281825	25 G 1.0	16.7	240	464
281602	2 X 1.5	7.3	28.8	74
281603	3 G 1.5	8.1	43	100
281604	4 G 1.5	8.8	58	119
281605	5 G 1.5	9.5	72	141

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
281607	7 G 1.5	10.3	101	183
281609	9 G 1.5	11.9	129.6	247
281612	12 G 1.5	14.1	172.8	328
281618	18 G 1.5	16.4	259	403
281625	25 G 1.5	18.6	360	596
281403	3 G 2.5	8.9	72	125
281404	4 G 2.5	9.8	96	155
281405	5 G 2.5	10.7	120	185
281407	7 G 2.5	11.6	168	244
281203	3 G 4	10.6	115	165
281204	4 G 4	11.5	154	220
281205	5 G 4	12.6	192	269
281207	7 G 4	14.6	269	482
281004	4 G 6	14.5	231	382
281005	5 G 6	15.8	288	457
280804	4 G 10	17.7	384	615
280805	5 G 10	19.4	480	771
280604	4 G 16	22.5	615	864

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

Similar products

- ÖLFLEX® TRAY II refer to page 58

Accessories

- SKINTOP® MS-M refer to page 724
- SKINTOP® ST-M refer to page 712
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

ÖLFLEX® CONTROL TM CY

ÖLFLEX® Control Cable PVC 0.6/1kV, UL TC-ER/WTTC/AWM/OIL RES, CSA AWM, Screened

Info

- Torsion resistant for drip loops
- Wide application range (NFPA 70/NEC)/ compliance with NFPA 79 for industrial machinery
- EMC/Screened

Benefits

- Wide application range due to multiple certifications
- 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 (WTTC)
- According to NEC/ NFPA 70 (2014), ARTICLE 501, for hazardous Class I, Division 2 locations determined in NEC ARTICLE 500

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 75°C wet rating
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / 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.
- UL cable type certifications for US use:
  - (UL) TC-ER per UL 1277 [UL file no.: E171371];
  - (UL) MTW per UL 1063 [UL file no.: E155920];
  - (UL) WTTC per UL 2277 [UL file no.: E323700];
  - UL AWM styles 2587 & 21098 (Oil) per UL 758 [UL file no.: E100338].

  Attributes:
  - UL OIL RES I/ II;
  - 75°C Wet, 90°C Dry;
  - Technically sunlight resistant (not SUN. RES. certified);
  - Direct burial;
  - Bus Drop Cable (2.5 mm²/ 14 AWG and larger, 3-core and 4-core versions only);
  - NFPA 79 2015 Edition;
  - FT4 flame retardance.

  NEC (NFPA 70):
  - Class 1, Division 2 per NEC Article 501.

  UL and CSA cable type certifications for use in Canada:
  - c(UL) CIC/ TC FT4 [UL file no.: E171371];
  - CSA AWM I/II A/B FT1;
  - CSA C22.2 210.2.

  Additionally:
  - Impact and Crush test per UL 1277 (excluding 0.75 mm²)

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Aluminum-coated foil
- Tinned-copper braiding
- Outer jacket: Specially Formulated Thermoplastic Polymer
- Color of the outer jacket: Gray

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine-wire, bare copper strand

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/20 x OD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL/CSA: 1000 V (AWM)
VDE U_0/U: 600/1000 V

Test voltage
2000 V

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

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² 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
281603CY	3 G 1.5	8.8	65	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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	327
281204CY	4 G 4	12.3	198.5	315
281205CY	5 G 4	14.2	242.7	388
281004CY	4 G 6	15.3	284.236	552
280804CY	4 G 10	18.5	458.4	857

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

Similar products

- ÖLFLEX® TRAY II CY refer to page 60

Accessories

- SKINTOP® MS-SC-M refer to page 732

ÖLFLEX® TRAY II

ÖLFLEX® Control Cable 0.6/1kV, UL TC-ER/WTTC/AWM/WET/OIL RES/SUN RES, CSA AWM

Info

- Torsion resistant for drip loops
- Broad application range (NFPA 70/NEC), NFPA 79 compliance, Outdoor use

Benefits

- Wide application range due to multiple certifications
- 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)
- According to NEC/ NFPA 70 (2014), ARTICLE 501, for hazardous Class I, Division 2 locations determined in NEC ARTICLE 500
- 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 75°C wet rating
- UV-resistant UL SUN RES
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / 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.
- UL certifications for US use:
  - (UL) TC-ER per UL 1277 [UL file no.: E171371];
  - (UL) MTW per UL 1063 [UL file no.: E155920];
  - (UL) WTTC per UL 2277 [UL file no.: E323700];
  - Submersible Pump (2.5 mm²/ 14 AWG & larger, only up to 7 cores);
  - (UL) PLTC-ER per UL 13 (4 mm²/ 12 AWG to and incl. 10 mm²/ 8 AWG) [E216027];
  - (UL) ITC-ER per UL 2250 (1 mm²/ 18 AWG to and incl. 4 mm²/ 12 AWG) [UL file no.: E196134];
  - DP-1 per UL 1690 [UL file no.: E233406];
  - UL AWM style 20886 per UL 758 [UL file no.: E100338].

  Attributes:
  - UL OIL RES I/ II;
  - 75°C Wet, 90°C Dry;
  - Sunlight resistant;
  - Direct burial;
  - NFPA 79 2012+ 2015 Edition;
  - FT4 flame retardance.

  NEC (NFPA 70):
  - Class 1 Division 2 per NEC Article 501.

  UL/ CSA certifications for use in Canada:
  - cUL CIC/ TC FT4 [UL file no.: E171371];
  - CSA AWM I/II A/B FT4.

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC+nylon sheath (PA skin)
- Outer jacket: Specially Formulated Thermoplastic Polymer
- Color of the outer jacket: Black

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine copper wire strands

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/15 x OD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL/CSA: 1000 V (AWM)
VDE U_0/U: 600/1000 V

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

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² 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	115
221807	7 G 1.0		9.5	67	149
221812	12 G 1.0		12.1	115	255
221818	18 G 1.0		14.9	173	365
221825	25 G 1.0		16.9	240	479
221603	3 G 1.5		8.3	43	103
221604	4 G 1.5		8.9	58	124
221605	5 G 1.5		9.7	72	146
221607	7 G 1.5		10.5	101	189
221609	9 G 1.5		12.1	130	255
221612	12 G 1.5		14.4	173	328

Article number	Number of cores and mm² per conductor	AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
221618	18 G 1.5		16.6	259	431
221625	25 G 1.5		18.8	360	592
221641	41 G 1.5		25.0	591	931
221403	3 G 2.5		9.2	72	130
221404	4 G 2.5		10.0	96	159
221405	5 G 2.5		10.8	120	191
221407	7 G 2.5		11.8	168	252
221412	12 G 2.5		16.2	288	459
221418	18 G 2.5		18.7	432	654
221425	25 G 2.5		22.5	600	874
221204	4 G 4		11.7	153	226
221205	5 G 4		12.8	192	279
221004	4 G 6		14.7	231	394
221005	5 G 6		16.0	288	472
221007	7 G 6		17.4	405	661
220804	4 G 10		17.9	384	615
220805	5 G 10		19.6	480	771
220604	4 G 16		22.8	615	864
220605	5 G 16		24.9	768	1080
220404	4 G	4	27.8	960	1418
220204	4 G	2	32.3	1344	2077

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

Similar products

- ÖLFLEX® CONTROL TM refer to page 54

Accessories

- SKINTOP® MS-M refer to page 724
- SKINTOP® ST-M refer to page 712
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

ÖLFLEX® TRAY II CY

ÖLFLEX® Control Cable 0.6/1kV, UL TC-ER/WTTC/AWM/WET/OIL RES/SUN RES, Screened

Info

- Torsion resistant for drip loops
- Broad application range (NFPA 70/NEC), NFPA 79 compliance, Outdoor use
- EMC/Screened

Benefits

- Wide application range due to multiple certifications
- 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)
- According to NEC/ NFPA 70 (2014), ARTICLE 501, for hazardous Class I, Division 2 locations determined in NEC ARTICLE 500
- 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 75°C wet rating
- UV-resistant UL SUN RES
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / 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.

- UL certifications for US use:
  - (UL) TC-ER per UL 1277 [UL file no.: E171371];
  - (UL) MTW per UL 1063 [UL file no.: E155920];
  - (UL) WTTC per UL 2277 [UL file no.: E323700];
  - Submersible Pump (2.5 mm²/ 14 AWG & larger, only up to 7 cores);
  - (UL) PLTC-ER per UL 13 (4 mm²/ 12 AWG to and incl. 10 mm²/ 8 AWG) [E216027];
  - (UL) ITC-ER per UL 2250 (1 mm²/ 18 AWG to and incl. 4 mm²/ 12 AWG) [UL file no.: E196134];
  - DP-1 per UL 1690 [UL file no.: E233406];
  - UL AWM style 20886 per UL 758 [UL file no.: E100338].

  Attributes:
  - UL OIL RES I/ II;
  - 75°C Wet, 90°C Dry;
  - Sunlight resistant;
  - Direct burial;
  - NFPA 79 2012+ 2015 Edition;
  - FT4 flame retardance.

  NEC (NFPA 70):
  - Class 1 Division 2 per NEC Article 501.

  UL/ CSA certifications for use in Canada:
  - cUL CIC/ TC FT4 [UL file no.: E171371];
  - CSA AWM I/II A/B FT4.

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC+nylon sheath (PA skin)
- Aluminum-coated foil
- Tinned-copper braiding
- Outer jacket: Specially Formulated Thermoplastic Polymer
- Color of the outer jacket: Black

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine copper wire strands

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/20 x OD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL/CSA: 1000 V (AWM)
VDE U_0/U: 600/1000 V

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

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² 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

Article number	Number of cores and mm² per conductor	AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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
2212070	7 G 4		15.5	310.2	499
2210040	4 G 6		15.5	271.7	552
2208040	4 G 10		18.7	438.6	857
2206040	4 G 16		23.3	699	1208
2204040	4 G	4	28.6	1296.8	1982
2202040	4 G	2	33.2	1899.5	2903

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 610 m drum or 8 x 76 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
*OD = Outer diameter

Similar products

- ÖLFLEX® CONTROL TM CY refer to page 56

Accessories

- SKINTOP® MS-SC-M refer to page 732

ÖLFLEX® SF

Super-flexible H05VV-F power cable

Info

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

Benefits

- High acceptance in Europe due to Harmonisation

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 IEC 60332-1-2
- Highly flexible at cold temperatures
- Design and geometry in compliance with harmonisation document
- Ozone-resistant according to EN 50396

Norm references / Approvals

- H05VV-F acc. to EN 50525-2-11, from 6 cores: based on EN 50525-2-11

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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

Article number	Number of cores and mm² 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	7.0	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	166
00277033	5 G 1.5	11.1	72	184

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 500 P refer to page 85
- ÖLFLEX® 550 P* refer to page 88

Accessories

- SKINTOP® ST-M refer to page 712
- STAR STRIP stripping tool refer to page 1000

ÖLFLEX® CLASSIC 100 H

Halogen-free power and control cable, oil resistant and very flexible

Info

- High flexibility and oil-resistance
- Nominal voltage 450/750V
- Torsion resistant for drip loops

Benefits

- Easy handling and installation due to very flexible cable type
- Wide application range due to excellent product features

Application range

- Public buildings like airports or railway stations
- 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
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

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 61034-2
- Oil-resistant according to EN 50363-4-1 (TM5) and UL OIL RES I and UL OIL RES II
- Ozone-resistant according to EN 50396

Norm references / Approvals

- Based on IEC 60227-5 and EN 50525-2-51
- Based on EN 50525-3-11

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 100 H				
0014150	2 X 1.5	7.6	28.8	91
0014151	3 G 1.5	8.3	43.2	114
0014152	4 G 1.5	9.0	57.6	140
0014153	5 G 1.5	10.1	72	176
0014156	2 X 2.5	9.0	48	133
0014157	3 G 2.5	9.7	72	167
0014158	4 G 2.5	10.8	96	207
0014159	5 G 2.5	11.9	120	260
0014162	3 G 4	11.4	115.2	240
0014163	4 G 4	12.7	153.6	303
0014164	5 G 4	13.9	192	372
0014166	3 G 6	12.7	172.8	320
0014167	4 G 6	13.9	230.4	400
0014168	5 G 6	15.8	288	510
0014170	4 G 10	17.9	384	662
0014171	5 G 10	19.9	480	826
0014173	4 G 16	20.7	614.4	957
0014174	5 G 16	23.0	768	1193
0014176	4 G 25	25.4	960	1480
0014177	5 G 25	28.5	1200	1860
0014179	4 G 35	28.8	1344	1985
0014180	5 G 35	32.3	1680	2490
0014182	4 G 50	35.0	1920	2830
0014184	4 G 70	40.0	2688	3890
0014186	4 G 95	46.0	3648	5110
0014188	4 G 120	51.0	4608	6315

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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 0,6/1 kV refer to page 69

Accessories

- SKINTOP® ST-HF-M refer to page 718

ÖLFLEX® CLASSIC 110 H

Halogen-free control cable, oil resistant and very flexible

Benefits

- Easy handling and installation due to very flexible cable type
- Wide application range due to excellent product features
- Certified for maritime applications

Application range

- Public buildings like airports or railway stations
- 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
- Intended for use under the European Construction Product Regulation (CPR), refer to catalogue appendix T14
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2015: please see the catalogue appendix table T29

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-22 and 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 61034-2
- Oil-resistant according to EN 50363-4-1 (TM5) 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

Norm references / Approvals

- UL AWM style 21089
- Based on EN 50525-3-11
- Based on EN 50525-2-51
- Germanischer Lloyd (GL) certificate no. 11 119-14 HH

Product Make-up

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

Info

- New: Extended application range due to GL certification
- High flexibility and oil-resistance
- VDE-certified

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V
UL: 600 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 (UL: +75°C)
Fixed installation: -40°C to +80°C (UL: +75°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 H U_0/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	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	87
10019916	5 X 0.75	6.9	36	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	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	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	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	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	617
10019927	34 G 1.5	19.8	489.6	821
10019944	2 X 2.5	7.6	48	113
10019945	3 G 2.5	8.3	72	146
10019946	4 G 2.5	9.0	96	180
10019947	5 G 2.5	10.1	120	221
10019948	7 G 2.5	11.2	168	295
10019949	12 G 2.5	15.1	288	491
10019950	4 G 4	10.8	153.6	268
10019951	5 G 4	12.1	192	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	478
10019975	7 G 6	16.0	403.2	638
10019851	4 G 10	16.2	384	635
10019852	5 G 10	18.1	480	775
10019849	4 G 16	18.8	614.4	930
10019853	5 G 16	21.2	768	1147
10019854	4 G 25	23.5	960	1442
10019855	5 G 25	26.4	1200	1773
10019856	4 G 35	26.6	1344	1917

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® CLASSIC 110 CH

Screened halogen-free control cable, oil resistant and very flexible

Info

- New: Extended application range due to GL certification
- High flexibility and oil-resistance
- Items with higher cross-sections on request

Benefits

- Easy handling and installation due to very flexible cable type
- Wide application range due to excellent product features
- Certified for maritime applications

Application range

- Public buildings like airports or railway stations
- 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
- Intended for use under the European Construction Product Regulation (CPR), refer to catalogue appendix T14
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2015: please see the catalogue appendix table T29

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-22 and 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 61034-2
- Oil-resistant according to EN 50363-4-1 (TM5)
  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

Norm references / Approvals

- UL AWM style 21089
- Based on EN 50525-3-11
- Based on EN 50525-2-51
- Germanischer Lloyd (GL)
  certificate no. 11 119-14 HH

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V
UL: 600 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 (UL: +75°C)
Fixed installation: -40°C to +80°C (UL: +75°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 110 CH U_0/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	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
10035063	18 G 1.0	15.7	235.4	474
10035064	25 G 1.0	17.8	312	611
10035065	41 G 1.0	22.4	508	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	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	1123.9	1807
10035386	4 G 35	30.4	1529.2	2321

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Single lengths for sizes: ≥ 4G50 max. 500 m
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® CLASSIC 130 H

Halogen-free control cable with improved fire characteristics

Info

- VDE-certified
- For use within public buildings and industrial plants
- **New**: Extended application range GL certified and cold flexible down to -25°C

Benefits

- Easy installation due to flexible design
- Certified for maritime applications
- Substitutes ÖLFLEX® 120 H

Application range

- Public buildings like airports or railway stations
- 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
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2015: please see the catalogue appendix table T29

Product features

- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-22 and 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 61034-2

Norm references / Approvals

- UL AWM style 21089
- Based on EN 50525-3-11
- Based on EN 50525-2-51
- Germanischer Lloyd (GL) certificate no. 11 120-14 HH

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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_0/U: 300/500 V
UL: 600 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 (UL: +75°C)
Fixed installation: -40°C to +80°C (UL: +75°C)

Article number	Number of cores and mm² 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	65
1123006	5 X 0.5	6.3	24	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	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	260
1123021	30 G 0.5	13.6	144	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	83
1123038	5 X 0.75	6.9	36	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	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	352

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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	100
1123072	5 X 1.0	7.3	48	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	183
1123080	12 G 1.0	10.7	115.2	212
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	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	135
1123112	5 X 1.5	8.3	72	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	250
1123120	12 G 1.5	12.2	172.8	289

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123124	18 G 1.5	14.6	259.2	433
1123128	25 G 1.5	17.2	360	596
1123130	34 G 1.5	19.8	489.6	786
1123139	2 X 2.5	7.6	48	110
1123140	3 G 2.5	8.3	72	137
1123142	4 G 2.5	9.0	96	174
1123144	5 G 2.5	10.1	120	217
1123146	7 G 2.5	11.2	168	283
1123149	12 G 2.5	15.1	288	467
1123151	18 G 2.5	18.0	432	696
1123153	25 G 2.5	21.1	600	969
1123159	3 G 4	9.8	115.2	213
1123160	4 G 4	10.8	153.6	267

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123161	5 G 4	12.1	192	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	480
1123169	7 G 6	16.0	403.2	626
1123172	4 G 10	16.2	384	601
1123173	5 G 10	18.1	480	735
1123177	4 G 16	18.8	614.4	917
1123178	5 G 16	21.2	768	1148
1123181	4 G 25	23.5	960	1418
1123182	5 G 25	26.4	1200	1769
1123185	4 G 35	26.6	1344	1905

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products
- ÖLFLEX® CLASSIC 130 H BK 0,6/1 kV refer to page 69

Accessories
- SKINTOP® ST-HF-M refer to page 718

ÖLFLEX® CLASSIC 135 CH

Screened halogen-free control cable with improved fire characteristics

Info
- VDE-certified
- For use within public buildings and industrial plants
- **New**: Extended application range GL certified and cold flexible down to -25°C

Benefits
- Easy installation due to flexible design
- Space-saving installation due to small cable diameters
- Certified for maritime applications
- Substitutes ÖLFLEX® 120 CH

Application range
- Public buildings like airports or railway stations
- 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)
- Note: for the use of AWM (Appliance Wiring Material) cables in industrial machinery (USA) according to NFPA 79 Ed. 2015: please see the catalogue appendix table T29

Product features
- Flame-retardant according to IEC 60332-1-2 (flame spread on a single cable)
- No flame-propagation according to IEC 60332-3-22 and 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 61034-2

Norm references / Approvals
- UL AWM style 21089
- Based on EN 50525-3-11
- Based on EN 50525-2-51
- Germanischer Lloyd (GL) certificate no. 11 120-14 HH

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V
UL: 600 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: -25°C to +70°C (UL: +75°C)
Fixed installation: -40°C to +80°C (UL: +75°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 135 CH				
1123200	2 X 0.5	5.9	36	51
1123201	3 G 0.5	6.2	43	61
1123202	3 X 0.5	6.2	43	61
1123203	4 G 0.5	6.6	49	72
1123204	4 X 0.5	6.6	49	72
1123205	5 G 0.5	7.1	57	85
1123206	5 X 0.5	7.1	57	85
1123208	7 G 0.5	7.7	69	103
1123209	7 X 0.5	7.7	69	103
1123213	12 G 0.5	10.1	104	165
1123217	18 G 0.5	11.8	141	236
1123220	25 G 0.5	13.7	224	324
1123232	2 X 0.75	6.3	43	60
1123233	3 G 0.75	6.6	52	77
1123234	3 X 0.75	6.6	52	77
1123235	4 G 0.75	7.1	61	87
1123236	4 X 0.75	7.1	61	87
1123237	5 G 0.75	7.9	72	106
1123238	5 X 0.75	7.9	72	106
1123241	7 G 0.75	8.5	89	129
1123242	7 X 0.75	8.5	89	129
1123247	12 G 0.75	11.1	138	211
1123248	12 X 0.75	11.1	138	211
1123251	18 G 0.75	13.0	211	307
1123254	25 G 0.75	15.1	280	413
1123266	2 X 1.0	6.6	51	79
1123267	3 G 1.0	6.9	62	88
1123268	3 X 1.0	6.9	62	88
1123269	4 G 1.0	7.4	74	106
1123270	4 X 1.0	7.4	74	106
1123271	5 G 1.0	8.3	88	124
1123272	5 X 1.0	8.3	88	124
1123274	7 G 1.0	8.9	112	155
1123275	7 X 1.0	8.9	112	155
1123280	12 G 1.0	11.7	185	250
1123281	12 X 1.0	11.7	185	250
1123284	18 G 1.0	14.1	268	368
1123290	25 G 1.0	16.2	354	493
1123291	25 X 1.0	16.2	354	493
1123306	2 X 1.5	7.2	65	91
1123307	3 G 1.5	7.6	82	112
1123308	3 X 1.5	7.6	82	112
1123309	4 G 1.5	8.4	100	141
1123310	4 X 1.5	8.4	100	141
1123311	5 G 1.5	9.1	119	161
1123312	5 X 1.5	9.1	119	161
1123314	7 G 1.5	10.0	154	206
1123315	7 X 1.5	10.0	154	206
1123320	12 G 1.5	13.4	268	355
1123324	18 G 1.5	15.8	373	517
1123328	25 G 1.5	18.2	530	705
1123339	2 X 2.5	8.6	96	128
1123340	3 G 2.5	9.1	118	157
1123342	4 G 2.5	10.0	147	201
1123344	5 G 2.5	11.1	176	248
1123346	7 G 2.5	12.0	253	313
1123349	12 G 2.5	16.3	385	524
1123359	3 G 4	10.6	178	231
1123360	4 G 4	11.8	248	291
1123361	5 G 4	13.3	269	361
1123362	7 G 4	14.6	371	468
1123366	3 G 6	12.7	240	318
1123367	4 G 6	14.2	343	437
1123368	5 G 6	15.5	441	510
1123369	7 G 6	17.0	510	662
1123372	4 G 10	17.2	495	685
1123373	5 G 10	19.5	592	824
1123374	7 G 10	21.4	820	1067
1123377	4 G 16	20.2	736	1036
1123378	5 G 16	22.6	895	1285
1123381	4 G 25	25.1	1129	1663
1123382	5 G 25	28.0	1400	1976
1123385	4 G 35	28.2	1546	2052

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 CH refer to page 65
- ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV refer to page 70

Accessories

- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® ST-HF-M refer to page 718

ÖLFLEX® CLASSIC 130 H BK 0,6/1 kV

0.6/1kVAC, Halogen-free, Flexible, IEC 60332-3, IEC 61034-2, UV/ ozone resistance, UL AWM 1000V

Info

- Outdoors
- Public buildings
- UL AWM recognized

Benefits

- Easy installation due to flexible design

Application range

- Public buildings
- 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
- According to NFPA 79, 2015 Edition, subchapter 12.9.2: Use for industrial machinery operated in the USA on the basis of UL AWM (recognized) certification

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 61034-2
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396
- UL Cable Flame Test

Norm references / Approvals

- Based on EN 50525-3-11
- UL AWM (recognized) Style 21156 (outer jacket) with max. conductor temperature of +75 °C acc. to UL

Product Make-up

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

Technical data

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

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

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_0/U: 600/1000 V
UL: 1000 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 +80°C
UL: +75°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 130 H BK 0,6/1 kV				
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	167
1123414	7 G 1.0	11.1	67.2	206
1123415	12 G 1.0	14.0	115.2	314
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	221
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	799
1123427	3 G 2.5	11.3	72	219

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123428	4 G 2.5	12.2	96	262
1123429	5 G 2.5	13.3	120	307
1123430	7 G 2.5	14.4	168	390
1123431	12 G 2.5	18.7	288	624
1123432	18 G 2.5	22.0	432	879
1123433	25 G 2.5	25.8	600	1212
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	416
1123438	4 G 6	15.1	230.4	463
1123439	5 G 6	16.8	288	559
1123440	4 G 10	18.7	384	757
1123441	5 G 10	20.7	480	915
1123443	5 G 16	23.6	768	1296
1123444	4 G 25	26.2	960	1631

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 H refer to page 64
- ÖLFLEX® CLASSIC 130 H refer to page 66

Accessories

- SKINTOP® ST-HF-M refer to page 718

ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV

0.6/1kVAC, Halogen-free, Flexible, IEC 60332-3, IEC 61034-2, UV/ ozone resistance, UL AWM 1000V

Info

- Outdoors
- Public buildings
- EMC/Screened

Benefits

- Easy installation due to flexible design
- Space-saving installation due to small cable diameters

Application range

- Public buildings
- 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
- According to NFPA 79, 2015 Edition, subchapter 12.9.2: Use for industrial machinery operated in the USA on the basis of UL AWM (recognized) certification

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 61034-2
- UV and weather-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396
- UL Cable Flame Test

Norm references / Approvals

- Based on EN 50525-3-11
- UL AWM (recognized) Style 21156 (outer jacket) with max. conductor temperature of +75 °C acc. to UL

Product Make-up

- 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 coumpound, black (RAL 9005)

Technical data

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

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

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
U_0/U: 600/1000 V
UL: 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: -25°C to +70°C
Fixed installation: -40°C to +80°C
UL: +75°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV				
1123460	2 X 1.0	9.4	39.5	120
1123461	3 G 1.0	9.8	51	140
1123462	4 G 1.0	10.4	62.8	165
1123463	5 G 1.0	11.2	76	191
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
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
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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1123476	2 X 2.5	11.6	79.4	197
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
1123480	7 G 2.5	15.4	225	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
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
1123492	4 G 16	22.5	735.1	1157
1123493	5 G 16	25.0	888.7	1407
1123494	4 G 25	27.8	1126.6	1683

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 110 CH refer to page 65
- ÖLFLEX® CLASSIC 135 CH refer to page 67

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® PETRO C HFFR

Chemically and mechanically robust cable for harsh environmental conditions - certified

Info

- Resistant to oil and drilling fluids acc. to NEK TS 606:2009 (Oil & Mud)
- Highly flame retardant
- UL/cUL certified for North America

Benefits

- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Reduced flame spreading increase the protection against damage to persons and property in the event of a fire
- Copper braiding screens the cable against electromagnetic interference
- Can be used in many applications from different industries due to its mechanical, thermal and chemical properties

Application range

- Onshore and offshore applications
- For electrical connection of drilling units, pumping stations, compressors or generators in harsh environmental conditions
- Particularly in wet areas of machine tools and transfer lines

Product features

- Resistant against oil and drilling fluids according NEK TS 606:2009 and IEC 61892-4
- Fire behaviour:
  - Halogen-free (VDE 0472-815)
  - Flame-retardant (IEC 60332-1-2)
  - No flame 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

Norm references / Approvals

- Single-core versions:
  USA: UL AWM Style 11624
  Canada: cUL AWM II A/B
- Multi-core versions:
  USA: UL AWM Style 20234
  Canada: cUL AWM II A/B

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

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

Fire test
Flame-retardant acc. 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 acc. 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 U_0/U: 600/1000 V
Up to 1.0mm² 300/500 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 mm² 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	948
0023250	1 X 95	21.6	1002	1155
0023251	1 X 120	24.5	1254	1463
0023248	1 X 150	26.1	1553	1767
0023233	1 X 185	28.4	1912	2349
0023234	1 X 240	32.6	2475	2869
0023279	1 X 300	34.7	3075	3817
ÖLFLEX® PETRO C HFFR black - multi-core				
0023275	3 G 0.5	10.1	36	140
0023274	2 X 1.0	10.5	41	149
0023252	2 X 1.5	11.5	57	183
0023253	3 G 1.5	12.0	72	212
0023254	4 G 1.5	12.8	90	249
0023255	5 G 1.5	14.0	115	307
0023256	7 G 1.5	15.9	151	401
0023239	12 G 1.5	18.8	238	573
0023257	18 G 1.5	22.3	350	846
0023240	25 G 1.5	26.6	490	1183
0023278	3 G 2.5	13.5	105	276
0023242	4 G 2.5	14.6	147	347
0023244	5 G 2.5	15.7	171	401
0023245	7 G 2.5	18.3	233	547
0023258	12 G 2.5	22.3	378	840

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0023260	4 G 4	16.2	212	457
0023266	5 G 4	17.6	250	540
0023261	4 G 6	17.7	288	558
0023268	5 G 6	19.9	367	710
0023280	4 G 10	22.3	474	882
0023272	5 G 10	24.3	582	1069
0023281	4 G 16	24.9	716	1208
0023269	5 G 16	27.6	881	1483
0023267	4 G 25	30.2	1096	1785
0023270	5 G 25	33.4	1371	2206
0023262	4 G 35	33.6	1515	2314
0023282	5 G 35	37.1	1875	2847
0023246	4 G 50	39.3	2140	3264
0023271	5 G 50	43.4	2620	4002
ÖLFLEX® PETRO C HFFR blue - multi-core				
0023276	3 G 0.5	10.1	36	140
0023273	2 X 1.0	10.5	41	147
0023263	2 X 1.5	11.5	57	183
0023283	3 G 1.5	12.0	72	212
0023237	4 G 1.5	12.8	90	249
0023284	5 G 1.5	14.0	115	307
0023238	7 G 1.5	15.9	151	401
0023264	12 G 1.5	18.8	238	573
0023265	25 G 1.5	26.6	490	1183

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® ROBUST 200

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

Info

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

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for 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
- Agricultural equipment
- For indoor and outdoor use

Product features

- 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
- Low-capacitance design
- Colour-coded up to 5 cores

Norm references / Approvals

- Based on EN 50525-2-51
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation made of modified PP
- Cores twisted in layers
- Outer sheath made of special TPE
- Sheath colour: black

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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 mm² 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	79
0021802	4 G 1.0	9.2	38.4	96
0021803	5 G 1.0	10.0	48	113
0021805	2 X 1.5	8.6	29	78
0021806	3 G 1.5	9.1	43	97
0021807	4 G 1.5	9.9	58	122
0021808	5 G 1.5	10.8	72	146
0021809	7 G 1.5	13.5	101	208
0021810	2 X 2.5	9.8	48	114
0021811	3 G 2.5	10.4	72	144
0021812	4 G 2.5	11.5	96	181
0021813	5 G 2.5	13.1	120	222

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0021814	7 G 2.5	15.9	168	312
0021816	3 G 4	12.4	115.2	215
0021817	4 G 4	14.0	154	273
0021818	5 G 4	15.8	192	333
0021822	4 G 6	15.7	230	378
0021823	5 G 6	17.2	288	463
0021825	4 G 10	19.4	384	570
0021826	5 G 10	21.4	480	770
0021828	4 G 16	22.4	614	885
0021829	5 G 16	24.6	768	1100
0021831	4 G 25	27.0	960	1365
0021833	4 G 35	29.7	1344	1773
0021836	4 G 50	36.2	1920	3454

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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

- H07RN-F, enhanced version refer to page 92
- ÖLFLEX® ROBUST 210 refer to page 73
- ÖLFLEX® ROBUST 215 C refer to page 74

Accessories

- FLEXIMARK® Stainless steel kit refer to page 956
- SKINTOP® MS-M refer to page 724
- SKINTOP® ST-HF-M refer to page 718
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

ÖLFLEX® ROBUST 210

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

Info

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

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for 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
- Agricultural equipment
- For indoor and outdoor use

Product features

- 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
- Low-capacitance design
- Number-coded cores

Norm references / Approvals

- Based on VDE 0250 / 0285
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation made of modified PP
- Cores twisted in layers
- Outer sheath made of special TPE
- Sheath colour: black

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBUST 210				
0021880	2 X 0.5	4.9	10	27
0021881	3 G 0.5	5.2	15	33
0021882	3 X 0.5	5.2	15	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	49
0021886	5 X 0.5	6.3	24	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	92
0021891	12 G 0.5	9.1	58	106
0021892	18 G 0.5	10.8	86.4	151
0021893	25 G 0.5	12.7	120	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	66
0021903	5 X 0.75	6.9	36	66
0021904	7 G 0.75	7.5	50	85
0021905	7 X 0.75	7.5	50	85
0021907	12 G 0.75	10.1	86	144
0021908	18 G 0.75	12.0	130	208
0021909	25 G 0.75	14.1	180	288
0021910	34 G 0.75	16.3	245	386
0021911	41 G 0.75	17.8	296	464
0021912	50 G 0.75	19.6	360	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	78
0021919	5 X 1.0	7.3	48	78
0021920	7 G 1.0	8.1	67	107
0021921	10 G 1.0	10.4	96	154

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0021922	12 G 1.0	10.7	115	178
0021923	18 G 1.0	12.9	173	262
0021924	25 G 1.0	15.0	240	357
0021925	34 G 1.0	17.5	326	484
0021926	41 G 1.0	19.2	394	582
0021927	50 G 1.0	21.0	480	703
0021928	2 X 1.5	6.4	29	56
0021929	3 G 1.5	6.8	43	72
0021930	3 X 1.5	6.8	43	72
0021931	4 G 1.5	7.4	58	91
0021932	4 X 1.5	7.4	58	91
0021933	5 G 1.5	8.3	72	108
0021934	5 X 1.5	8.3	72	108
0021936	7 G 1.5	9.0	101	149
0021937	7 X 1.5	9.0	101	149
0021938	10 G 1.5	11.8	143	215
0021940	12 G 1.5	12.2	173	234
0021941	18 G 1.5	14.6	259	369
0021942	25 G 1.5	17.2	360	510
0021943	34 G 1.5	19.8	490	683
0021945	50 G 1.5	24.0	720	999
0021946	2 X 2.5	7.6	48	86
0021947	3 G 2.5	8.3	72	115
0021949	4 G 2.5	9.0	96	131
0021951	5 G 2.5	10.1	120	178
0021953	7 G 2.5	11.2	168	241
0021954	12 G 2.5	15.1	288	405
0021963	3 G 4	10.1	115	180
0021964	4 G 4	11.1	157	228
0021965	5 G 4	12.4	192	280
0021966	7 G 4	13.6	269	377
0021967	4 G 6	13.3	230	332
0021968	5 G 6	14.8	288	407
0021969	4 G 10	16.5	384	541
0021970	5 G 10	18.4	480	620
0021971	4 G 16	18.8	614.4	806
0021972	4 G 25	23.5	960	1218
0021973	4 G 35	26.4	1344	1658

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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.

ÖLFLEX® ROBUST 215 C

Proven all-weather control cable - screened and resistant to a wide range of chemical media

Info

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

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for 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
- Agricultural equipment
- For indoor and outdoor use
- In EMC-sensitive environments (electromagnetic compatibility)

Product features

- 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
- Low-capacitance design
- Number-coded cores

Norm references / Approvals

- Based on VDE 0250 / 0285
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry

Product Make-up

- Fine-wire, bare copper conductor
- 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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBUST 215 C				
0022700	2 X 0.5	5.9	36	42
0022701	3 G 0.5	6.2	43	52
0022702	3 X 0.5	6.2	43	52
0022703	4 G 0.5	6.6	49	59
0022704	4 X 0.5	6.6	49	59
0022705	5 G 0.5	7.1	57	68
0022706	5 X 0.5	7.1	57	68
0022708	7 G 0.5	7.7	69	85
0022709	7 X 0.5	7.7	69	85
0022711	12 G 0.5	10.1	104	136
0022712	18 G 0.5	11.8	141	189
0022713	25 G 0.5	13.7	211	265
0022717	2 X 0.75	6.3	43	50
0022718	3 G 0.75	6.6	52	60
0022719	3 X 0.75	6.6	52	60
0022720	4 G 0.75	7.1	61	72
0022721	4 X 0.75	7.1	61	72
0022722	5 G 0.75	7.9	72	88
0022723	5 X 0.75	7.9	72	88
0022724	7 G 0.75	8.5	89	110
0022725	7 X 0.75	8.5	89	110
0022727	12 G 0.75	11.1	138	177
0022728	18 G 0.75	13.0	211	247
0022729	25 G 0.75	15.1	280	347
0022730	34 G 0.75	17.5	380	460
0022733	2 X 1.0	6.6	51	60
0022734	3 G 1.0	6.9	62	70
0022735	3 X 1.0	6.9	62	70
0022736	4 G 1.0	7.4	74	85

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0022737	4 X 1.0	7.4	74	85
0022738	5 G 1.0	8.3	88	103
0022739	5 X 1.0	8.3	88	103
0022740	7 G 1.0	8.9	112	131
0022742	12 G 1.0	11.7	185	213
0022743	18 G 1.0	14.1	268	321
0022744	25 G 1.0	16.2	354	425
0022748	2 X 1.5	7.2	65	71
0022749	3 G 1.5	7.6	82	90
0022750	3 X 1.5	7.6	82	90
0022751	4 G 1.5	8.4	100	114
0022752	4 X 1.5	8.4	100	114
0022753	5 G 1.5	9.1	119	136
0022754	5 X 1.5	9.1	119	136
0022756	7 G 1.5	10.0	154	177
0022757	7 X 1.5	10.0	154	177
0022760	12 G 1.5	13.4	268	290
0022761	18 G 1.5	15.8	373	435
0022762	25 G 1.5	18.2	530	579
0022763	34 G 1.5	21.2	683	797
0022767	3 G 2.5	9.1	118	134
0022768	4 G 2.5	10.0	147	169
0022769	5 G 2.5	11.1	176	207
0022770	7 G 2.5	12.0	253	270
0022774	4 G 4	11.9	190	258
0022776	4 G 6	14.5	290	392
0022777	4 G 10	17.5	458	602
0022778	4 G 16	20.2	736.6	928
0022771	4 G 25	25.1	1126.7	1411
0022780	4 G 35	28.0	1540	1883

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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.

ÖLFLEX® CLASSIC 400 P

Abrasion- and oil-resistant control cable with PUR sheath for increased application requirements

Info

- High mechanical strength
- Good oil resistance
- The classic for multi-functional use

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
- Compatible with a multitude of acidic cleaning and disinfection solutions
- Also available as DESINA® compliant power cable with black outer sheath colour

Application range

- Industrial machinery and machine tools
- Measurement, control and electrical applications
- Food production and packaging machinery
- 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
- Resistant to hydrolysis and microbes

Norm references / Approvals

- Based on VDE 0285
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry

Product Make-up

- Fine-wire, bare copper conductor
- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 mm² 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	32
1312003	3 G 0.5	5.1	15	43
1312803	3 X 0.5	5.1	15	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	59
1312805	5 X 0.5	6.2	24	59
1312007	7 G 0.5	6.7	34	73
1312807	7 X 0.5	6.7	34	73
1312010	10 G 0.5	8.6	48	109
1312012	12 G 0.5	8.9	57.6	125
1312018	18 G 0.5	10.5	87	180
1312025	25 G 0.5	12.4	120	250
1312034	34 G 0.5	14.3	164	333
1312041	41 G 0.5	15.7	197	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	74
1312855	5 X 0.75	6.7	36	74
1312107	7 G 0.75	7.3	50	97
1312857	7 X 0.75	7.3	50	97
1312110	10 G 0.75	9.6	72	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	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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	89
1312905	5 X 1.0	7.1	48	89
1312207	7 G 1.0	8.0	67	116
1312210	10 G 1.0	10.2	96	171
1312212	12 G 1.0	10.5	115	197
1312218	18 G 1.0	12.7	173	289
1312225	25 G 1.0	14.7	240	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	63
1312303	3 G 1.5	6.7	43	79
1312953	3 X 1.5	6.7	43	79
1312304	4 G 1.5	7.2	58	98
1312954	4 X 1.5	7.2	58	98
1312305	5 G 1.5	8.1	72	121
1312955	5 X 1.5	8.1	72	121
1312307	7 G 1.5	8.9	101	159
1312957	7 X 1.5	8.9	101	159
1312312	12 G 1.5	12.0	173	268
1312318	18 G 1.5	13.4	259.5	392
1312325	25 G 1.5	16.9	360	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	132
1312404	4 G 2.5	8.9	96	163
1312405	5 G 2.5	10.0	120	186
1312407	7 G 2.5	11.1	168	267
1312412	12 G 2.5	14.8	288	445

Power and control cables

LAPP GROUP

Harsh conditions • High mechanical and chemical resistance

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1312504	4 G 4	10.8	154	237
1312505	5 G 4	12.1	192	291
1312507	7 G 4	13.4	269	391
1312604	4 G 6	13.0	230.4	327
1312605	5 G 6	14.5	288	424
1312607	7 G 6	16.0	403	580
1312614	4 G 10	16.2	384	567
1312615	5 G 10	18.1	480	695
1312617	7 G 10	20.0	672	937
1312624	4 G 16	18.8	614.4	1064

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 400 P DESINA - sheath colour: black				
1312970	4 G 1.5	7.2	58	98
1312981	7 G 1.5	8.8	101	159
1312983	11 G 1.5	11.6	158	228
1312973	4 G 2.5	8.9	96	163
1312974	4 G 4	10.8	154	237
1312975	4 G 6	13.0	230.4	350
1312976	4 G 10	16.2	384	567
1312978	4 G 25	23.5	960	1582

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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® 408 P refer to page 79
- ÖLFLEX® 409 P refer to page 80
- ÖLFLEX® 440 P refer to page 81

Accessories

- SKINTOP® metric plastic cable glands

ÖLFLEX® CLASSIC 400 CP

Screened, abrasion- and oil-resistant control cable 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
- Compatible with a multitude of acidic cleaning and disinfection solutions
- Additional robustness thanks to inner sheath
- Copper braiding screens the cable against electromagnetic interference

Application range

- Industrial machinery and machine tools
- Measurement, control and electrical applications
- Food production and packaging machinery
- 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

Norm references / Approvals

- Based on VDE 0285
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry

Product Make-up

- Fine-wire, bare copper conductor
- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLASSIC 400 CP				
1313852	2 X 0.75	7.4	45	85
1313103	3 G 0.75	7.9	52	99
1313853	3 X 0.75	7.9	52	99
1313104	4 G 0.75	8.4	77	114
1313854	4 X 0.75	8.4	77	114
1313105	5 G 0.75	8.9	84	130
1313855	5 X 0.75	8.9	84	130
1313107	7 G 0.75	9.7	92	161
1313857	7 X 0.75	9.7	92	161
1313112	12 G 0.75	12.3	138	245
1313118	18 G 0.75	14.5	219	354
1313125	25 G 0.75	16.6	277	463
1313134	34 G 0.75	18.9	420	598
1313141	41 G 0.75	20.6	500	725
1313902	2 X 1.0	7.9	50	97
1313203	3 G 1.0	8.2	77	111
1313903	3 X 1.0	8.2	77	111
1313204	4 G 1.0	8.7	87	129
1313904	4 X 1.0	8.7	87	129
1313205	5 G 1.0	9.5	90	152
1313207	7 G 1.0	10.2	110	184
1313212	12 G 1.0	13.3	194	306
1313218	18 G 1.0	15.5	267	417
1313225	25 G 1.0	17.5	379	541
1313234	34 G 1.0	20.3	516	735

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1313241	41 G 1.0	22.0	610	860
1313952	2 X 1.5	8.5	77	116
1313303	3 G 1.5	8.9	85	135
1313953	3 X 1.5	8.9	85	135
1313304	4 G 1.5	9.6	100	162
1313954	4 X 1.5	9.6	100	162
1313305	5 G 1.5	10.3	120	187
1313955	5 X 1.5	10.3	120	187
1313307	7 G 1.5	11.3	152	236
1313957	7 X 1.5	11.3	152	236
1313312	12 G 1.5	14.8	267	392
1313318	18 G 1.5	17.2	400	536
1313325	25 G 1.5	20.1	572	742
1313334	34 G 1.5	21.9	754	960
1313341	41 G 1.5	24.7	874	1118
1313403	3 G 2.5	10.3	121	191
1313404	4 G 2.5	11.3	163	232
1313405	5 G 2.5	12.6	199	282
1313407	7 G 2.5	13.9	261	370
1313412	12 G 2.5	17.2	470	580
1313504	4 G 4	13.4	238	345
1313505	5 G 4	14.7	279	412
1313604	4 G 6	15.8	318	483
1313605	5 G 6	17.3	370	576
1313614	4 G 10	19.0	558	733
1313624	4 G 16	22.2	804	1340

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 415 CP refer to page 78
- ÖLFLEX® 440 CP refer to page 82
- ÖLFLEX® CLASSIC 415 CP
- ÖLFLEX® 440 CP

Accessories

- Conductor end sleeves
- SKINTOP® MS-SC-M refer to page 732

ÖLFLEX® CLASSIC 415 CP

Screened, abrasion- and oil-resistante PUR control cable with reduced outer diameter

Benefits

- Space and weight-saving installations due to small 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

- Industrial machinery and machine tools
- 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

Norm references / Approvals

- Core based on VDE 0812/0285
- Outer sheath based on VDE 0250/0285

Product Make-up

- Fine-wire, bare copper conductor
- 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)

Info

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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	45
1314001	3 G 0.5	6.1	43	59
1314002	3 X 0.5	6.1	43	59
1314003	4 G 0.5	6.5	49	83
1314004	4 X 0.5	6.5	49	83
1314005	5 G 0.5	7.0	57	96
1314006	5 X 0.5	7.0	57	96
1314007	7 G 0.5	7.5	69	136
1314008	7 X 0.5	7.5	69	136
1314010	12 G 0.5	9.9	104	200
1314011	12 X 0.5	9.9	104	200
1314012	18 G 0.5	11.5	141	275
1314013	18 X 0.5	11.5	141	275
1314014	25 G 0.5	13.4	211	350
1314015	25 X 0.5	13.4	211	350
1314017	2 X 0.75	6.2	43	56
1314018	3 G 0.75	6.5	52	70
1314019	3 X 0.75	6.5	52	70
1314020	4 G 0.75	7.0	61	95
1314021	4 X 0.75	7.0	61	95
1314022	5 G 0.75	7.7	72	130
1314023	5 X 0.75	7.7	72	130
1314024	7 G 0.75	8.3	89	168
1314025	7 X 0.75	8.3	89	168
1314026	12 G 0.75	10.9	138	232
1314027	18 G 0.75	12.7	211	315
1314028	25 G 0.75	14.8	280	435
1314029	25 X 0.75	14.8	280	435
1314032	2 X 1.0	6.5	51	84
1314033	3 G 1.0	6.8	62	110
1314034	3 X 1.0	6.8	62	110
1314035	4 G 1.0	7.3	74	130
1314036	4 X 1.0	7.3	74	130
1314037	5 G 1.0	8.1	88	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	156
1314039	7 G 1.0	8.8	112	192
1314040	7 X 1.0	8.8	112	192
1314041	12 G 1.0	11.5	185	285
1314042	18 G 1.0	13.9	268	395
1314043	25 G 1.0	15.9	354	656
1314046	2 X 1.5	7.1	65	97
1314047	3 G 1.5	7.5	82	125
1314048	3 X 1.5	7.5	82	125
1314049	4 G 1.5	8.2	100	165
1314050	4 X 1.5	8.2	100	165
1314051	5 G 1.5	8.9	119	193
1314052	5 X 1.5	8.9	119	193
1314053	7 G 1.5	9.9	154	245
1314054	7 X 1.5	9.9	154	245
1314055	12 G 1.5	13.0	268	365
1314056	18 G 1.5	15.6	373	553
1314057	25 G 1.5	17.9	530	734
1314058	34 G 1.5	20.8	683	944
1314061	3 G 2.5	8.9	118	188
1314062	4 G 2.5	9.9	147	236
1314063	5 G 2.5	11.0	176	270
1314064	7 G 2.5	11.9	253	340
1314065	12 G 2.5	16.0	355	589
1314066	18 G 2.5	19.0	569	978
1314067	25 G 2.5	22.2	827	1358
1314068	4 G 4	11.6	248	305
1314070	7 G 4	14.4	355	500
1314071	4 G 6	14.2	343	440
1314073	7 G 6	17.0	505	672
1314074	4 G 10	17.2	535	710
1314075	4 G 16	20.2	800	1050
1314076	4 G 25	25.1	1075	1570
1314077	4 G 35	28.0	1576	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 215 C refer to page 74
- ÖLFLEX® CLASSIC 400 CP refer to page 77

Accessories

- Conductor end sleeves
- SKINTOP® MS-SC-M refer to page 732

ÖLFLEX® 408 P

Abrasion- and oil-resistant control cable with PUR sheath for increased application requirements - VDE certified

Info

- High mechanical strength
- Good oil resistance
- Interstice-filling functional layer

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
- Interstice-filling functional layer ensures more saftey and efficiency during industrial jacket stripping
- VDE-tested characteristics

Application range

- Appliance and apparatus construction
- Industrial machinery and machine tools
- 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

Norm references / Approvals

- VDE Reg.No. 8744

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: special PVC
- Cores twisted in layers
- Special outer sheath of polyurethane with interstice-filling functional layer
- Sheath colour: silver grey (RAL 7001)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 +80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 408 P				
1308802	2 X 0,5	4,8	9.6	32
1308003	3 G 0,5	5,1	14.4	39
1308803	3 X 0,5	5,1	14.4	39
1308004	4 G 0,5	5,7	19.2	49
1308804	4 X 0,5	5,7	19.2	49
1308005	5 G 0,5	6,2	24	59
1308805	5 X 0,5	6,2	24	59
1308007	7 G 0,5	6,7	33.6	73
1308807	7 X 0,5	6,7	33.6	73
1308010	10 G 0,5	8,6	48	116
1308012	12 G 0,5	8,9	57.6	129
1308018	18 G 0,5	10,5	86.4	184
1308025	25 G 0,5	12,4	120	256
1308852	2 X 0,75	5,4	14.4	42
1308103	3 G 0,75	5,7	21.6	51
1308853	3 X 0,75	5,7	21.6	51
1308104	4 G 0,75	6,2	28.8	62
1308854	4 X 0,75	6,2	28.8	62
1308105	5 G 0,75	6,7	36	75
1308855	5 X 0,75	6,7	36	75
1308107	7 G 0,75	7,3	50.4	95
1308857	7 X 0,75	7,3	50.4	95
1308110	10 G 0,75	9,6	72	153
1308112	12 G 0,75	9,9	86.4	170
1308118	18 G 0,75	11,7	129.6	245
1308125	25 G 0,75	13,8	180	340
1308902	2 X 1.0	5,7	19.2	49
1308203	3 G 1.0	6.0	28.8	60
1308903	3 X 1.0	6.0	28.8	60
1308204	4 G 1.0	6,5	38.4	74
1308904	4 X 1.0	6,5	38.4	74
1308205	5 G 1.0	7,1	48	90
1308905	5 X 1.0	7,1	48	90

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1308207	7 G 1.0	8.0	67.2	118
1308907	7 X 1.0	8.0	67.2	118
1308210	10 G 1.0	10,2	86	184
1308212	12 G 1.0	10,5	115.2	204
1308218	18 G 1.0	12,7	172.8	303
1308225	25 G 1.0	14,7	240	412
1308952	2 X 1,5	6,3	28.8	64
1308303	3 G 1,5	6,7	43.2	81
1308953	3 X 1,5	6,7	43.2	81
1308304	4 G 1,5	7,2	57.6	99
1308954	4 X 1,5	7,2	57.6	99
1308305	5 G 1,5	8,1	72	125
1308955	5 X 1,5	8,1	72	125
1308307	7 G 1,5	8,9	100.8	161
1308957	7 X 1,5	8,9	100.8	161
1308312	12 G 1,5	12.0	172.8	286
1308318	18 G 1,5	14,4	259.2	419
1308325	25 G 1,5	16,9	360	580
1308403	3 G 2,5	8,1	72	125
1308404	4 G 2,5	8,9	96	158
1308405	5 G 2,5	10.0	120	198
1308407	7 G 2,5	11,1	168	259
1308412	12 G 2,5	14,8	288	454
1308504	4 G 4	10,8	153.6	241
1308505	5 G 4	12,1	192	302
1308507	7 G 4	13,4	268.8	394
1308604	4 G 6	13.0	230.4	356
1308605	5 G 6	14,5	288	443
1308607	7 G 6	16.0	403.2	579
1308514	4 G 10	16,2	384	571
1308615	5 G 10	18,1	480	714
1308617	7 G 10	20.0	672	935
1308624	4 G 16	18,8	614.4	843

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® 409 P

Abrasion- and oil-resistant PUR control cable for increased application requirements - certified for North America

Info

- Substitudes previous ÖLFLEX® 491 P
- UL/cUL certified for North America
- Interstice-filling functional layer

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
- Interstice-filling functional layer ensures more saftey and efficiency during industrial jacket stripping
- Certified for the USA and Canada for export-oriented appliance and apparatus manufacturers

Application range

- Appliance and apparatus construction
- Industrial machinery and machine tools
- Measurement, control and electrical applications
- Under consideration of the temperature range also suitable for outdoor use
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress

Product features

- High oil-resistance
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Abrasion and notch-resistant
- Low-adhesive surface
- Resistant to hydrolysis and microbes

Norm references / Approvals

- UL AWM Style 20234
- CUL AWM II A/B FT1

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: special PVC
- Cores twisted in layers
- Special outer sheath of polyurethane with interstice-filling functional layer
- Sheath colour: black (RAL 9005)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V
UL/CSA: 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 (UL: +80°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® 409 P				
1311852	2 X 0,75	6,9	14.4	61
1311103	3 G 0,75	7,2	21.6	71
1311104	4 G 0,75	7,7	28.8	84
1311105	5 G 0,75	8,3	36	100
1311107	7 G 0,75	8,9	50.4	122
1311110	10 G 0,75	10,8	72	180
1311112	12 G 0,75	11,1	86.4	198
1311118	18 G 0,75	12,8	129.6	275
1311125	25 G 0,75	14,5	180	364
1311902	2 X 1.0	7,2	19.2	69
1311203	3 G 1.0	7,5	28.8	81
1311204	4 G 1.0	8.0	38.4	97
1311205	5 G 1.0	8,7	48	117
1311207	7 G 1.0	9,3	67.2	142
1311210	10 G 1.0	11,4	96	212
1311212	12 G 1.0	11,7	115.2	234
1311218	18 G 1.0	13,5	172.8	327
1311225	25 G 1.0	15,4	240	437
1311952	2 X 1,5	7,8	28.8	87

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1311303	3 G 1,5	8,2	43.2	104
1311304	4 G 1,5	8,8	57.6	126
1311305	5 G 1,5	9,5	72	151
1311307	7 G 1,5	10,2	100.8	188
1311312	12 G 1,5	13.0	172.8	314
1311318	18 G 1,5	15.0	259.2	441
1311325	25 G 1,5	17,2	360	596
1311403	3 G 2,5	9,5	72	151
1311404	4 G 2,5	10,2	96	184
1311405	5 G 2,5	11,1	120	224
1311407	7 G 2,5	12.0	168	282
1311412	12 G 2,5	15,5	288	480
1311504	4 G 4	11,8	153.6	266
1311505	5 G 4	12,9	192	325
1311604	4 G 6	13,1	230.4	359
1311605	5 G 6	14,3	288	438
1311704	4 G 10	16,5	384	585
1311705	5 G 10	18,2	480	722
1311804	4 G 16	19,1	614.4	861
1311805	5 G 16	22,1	768	1107

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® 440 P

Abrasion- and oil-resistant all-weather control cable with TPE core insulation and PUR sheath - VDE certified

Info

- Flexible down to -40°C
- Halogen-free and flame-retardant
- 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
- VDE-tested characteristics

Application range

- Industrial machinery and machine tools
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Construction machinery
- Agricultural equipment
- 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

Norm references / Approvals

- VDE reg. no. 6582

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 440 P				
0012800	2 X 0.5	5.8	10	39
0012801	3 G 0.5	6.1	14	46
0012802	4 G 0.5	6.6	19	53
0012803	5 G 0.5	7.3	24	65
0012804	7 G 0.5	8.8	34	92
0012805	12 G 0.5	10.9	58	149
0012806	18 G 0.5	12.9	86	207
0012807	25 G 0.5	15.7	120	274
0012813	2 X 0.75	6.2	14	48
0012814	3 G 0.75	6.5	22	53
0012815	4 G 0.75	7.1	29	67
0012816	5 G 0.75	8.0	36	81
0012817	7 G 0.75	9.7	50	119
0012818	12 G 0.75	11.7	86	193
0012819	18 G 0.75	14.1	130	269
0012820	25 G 0.75	17.1	180	378
0012825	2 X 1.0	6.5	19	57
0012826	3 G 1.0	6.9	29	61
0012827	4 G 1.0	7.7	38	82
0012828	5 G 1.0	8.4	48	107

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0012829	7 G 1.0	10.2	67	138
0012830	12 G 1.0	12.6	115	215
0012831	18 G 1.0	14.9	173	328
0012832	25 G 1.0	18.1	240	479
0012833	34 G 1.0	20.6	326	616
0012834	41 G 1.0	22.4	394	727
0012837	2 X 1.5	7.1	29	73
0012838	3 G 1.5	7.5	43	96
0012839	4 G 1.5	8.4	58	105
0012840	5 G 1.5	9.4	72	133
0012841	7 G 1.5	11.4	101	175
0012842	12 G 1.5	14.0	173	309
0012843	18 G 1.5	16.6	259	458
0012844	25 G 1.5	20.1	360	635
0012846	41 G 1.5	25.1	590	1003
0012850	3 G 2.5	9.2	72	142
0012851	4 G 2.5	10.0	96	184
0012852	5 G 2.5	11.2	120	220
0012853	7 G 2.5	13.8	168	294
0012854	12 G 2.5	16.9	288	489

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 210 refer to page 73
- ÖLFLEX® CLASSIC 400 P refer to page 75

Accessories

- Conductor end sleeves
- SKINTOP® ST-M refer to page 712

ÖLFLEX® 440 CP

Screened, abrasion- and oil-resistant all-weather control cable with TPE insulation and PUR sheath - VDE certified

Info

- Halogen-free and flame-retardant
- 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
- Additional robustness thanks to inner sheath
- Copper braiding screens the cable against electromagnetic interference

Application range

- Industrial machinery and machine tools
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Construction machinery
- Agricultural equipment
- 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

Norm references / Approvals

- VDE reg. no. 6582

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 440 CP				
0012901	3 G 0.5	8.3	44	100
0012902	4 G 0.5	8.8	52	120
0012903	5 G 0.5	9.7	61	139
0012904	7 G 0.5	11.2	75	175
0012906	12 G 0.5	13.7	131	276
0012907	18 G 0.5	15.7	168	376
0012908	25 G 0.5	18.5	212	485
0012911	2 X 0.75	8.4	45	104
0012912	3 G 0.75	8.7	52	119
0012913	4 G 0.75	9.5	67	126
0012914	5 G 0.75	10.2	75	165
0012915	7 G 0.75	11.9	96	210
0012917	12 G 0.75	14.5	160	331
0012919	25 G 0.75	20.3	283	596
0012925	2 X 1.0	8.7	49	117
0012926	3 G 1.0	9.3	60	132
0012927	4 G 1.0	9.9	78	163
0012928	5 G 1.0	10.8	88	187

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0012929	7 G 1.0	12.8	115	255
0012931	12 G 1.0	15.4	201	419
0012932	18 G 1.0	17.7	267	546
0012933	25 G 1.0	21.5	351	738
0012934	34 G 1.0	23.8	498	972
0012940	2 X 1.5	9.5	68	122
0012941	3 G 1.5	9.9	83	140
0012942	4 G 1.5	10.8	102	170
0012943	5 G 1.5	11.6	119	200
0012944	7 G 1.5	14.2	186	290
0012945	12 G 1.5	16.8	264	423
0012946	18 G 1.5	20.0	379	616
0012947	25 G 1.5	23.5	534	804
0012949	41 G 1.5	28.9	803	1360
0012950	3 G 2.5	11.4	121	194
0012951	4 G 2.5	12.6	145	307
0012952	5 G 2.5	14.0	205	413
0012953	7 G 2.5	16.4	259	533
0012954	12 G 2.5	20.1	407	795

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC 400 CP refer to page 77

Accessories

- Conductor end sleeves
- SKINTOP® MS-SC-M refer to page 732

ÖLFLEX® 491 P

Abrasion- and oil-resistant PUR control cable for increased application requirements - certified for North America

Info

- For the North American market
- High oil-resistance
- Discontinued product - Will be substituted of ÖLFLEX® 409 P

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

Norm references / Approvals

- In accordance with UL AWM Style 20234
- CUL AWM II A/B FT1
- 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.

Product Make-up

- Fine-wire, bare copper conductor
- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 U_0/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
Flexible use: -5°C to 80°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® 491 P - sheath colour: black				
0013009	3 G 1.0	7.7	27	73
0013017	3 G 1.5	8.3	44	100
0013018	4 G 1.5	9.0	58	123
0013019	5 G 1.5	9.8	72	150
0013020	7 G 1.5	10.7	101	197
0013021	12 G 1.5	13.8	173.4	344
0013023	25 G 1.5	20.0	360	682
0013024	3 G 2.5	9.2	72	152
0013025	4 G 2.5	9.9	96	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	89
0013212	7 G 1.0	9.7	61	138
0013213	12 G 1.0	12.5	105	232
0013214	18 G 1.0	14.8	157	340
0013215	25 G 1.0	17.8	218	454
0013223	3 G 1.5	8.3	44	100
0013220	4 G 1.5	9.0	57.6	123
0013222	7 G 1.5	10.7	101	197
0013225	12 G 1.5	13.8	173	344
0013226	18 G 1.5	16.6	260	488
0013227	25 G 1.5	20.0	360	682

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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® 409 P refer to page 80

Accessories

- Marking systems
- SKINTOP® Standard

ÖLFLEX® 450 P

Abrasion- and oil-resistant cable for handheld equipment with 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

- Portable handheld electrical devices such as drills, sanders, jig saws or grinders
- Power or extension cord
- 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 IEC 60332-1-2
- Low-adhesive surface
- Resistant to hydrolysis and microbes

Norm references / Approvals

- Based on VDE 0250 / 0285

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: Based on PVC
- Cores twisted together
- Inner sheath: PVC - colour red
- Outer sheath: PUR colour yellow

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

Nominal voltage
U_0/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 mm² 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	89
0012202	3 G 1.5	9.3	43	120
00122033	4 G 1.5	10.1	58	160
00122043	5 G 1.5	10.9	72	179
0012302	3 G 2.5	10.8	72	186
00123043	5 G 2.5	13.6	120	283

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 540 P refer to page 86
- ÖLFLEX® 550 P* refer to page 88

Accessories

- SKINTOP® BS-M refer to page 719
- SKINTOP® ST-M refer to page 712

ÖLFLEX® 500 P

Flexible, abrasion-, oil- and cold-resistant workshop cable with PUR outer sheath

Info

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

Benefits

- Increased durability under harsh conditions thanks to robust PUR 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

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

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

Norm references / Approvals

- Based on VDE 0285

Product Make-up

- Extra-fine wire strand made of bare copper
- Core insulation: TPE compound
- Cores twisted together
- PUR outer sheath
- Sheath colour: orange

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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 mm² 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	77
00123473	4 G 1.0	8.5	38.4	96
00123483	5 G 1.0	9.2	48	120
0012351	2 X 1.5	8.0	29	81
0012352	3 G 1.5	8.7	43	105.3
00123543	4 G 1.5	9.6	58	135
00123533	5 G 1.5	10.8	72	158.9
0012365	3 G 2.5	10.9	72	173.2
00123553	4 G 2.5	11.9	96	204
00123663	5 G 2.5	13.2	120	254

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 540 P refer to page 86
- ÖLFLEX® 550 P* refer to page 88

Accessories

- Marking systems
- Conductor end sleeves
- SKINTOP® CLICK refer to page 715
- SKINTOP® ST-M refer to page 712

ÖLFLEX® 540 P

Cold-flexible, abrasion- and oil-resistant TPE/PUR connection cable for harsh conditions - VDE-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

- Connection and extension cables
- Construction machinery
- Building sites, camp sites, stage applications
- Agricultural equipment
- 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

Norm references / Approvals

- VDE reg. no. 6583 up to 1.0 mm²
- VDE reg. no. 6584 from 1.5 mm²

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation: TPE
- Cores twisted together
- Outer sheath: PUR colour yellow
- DESIGN: Other sheath colours on request
- PRINT: Other sheath marking on request

Info

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

Core identification code
Colours according to VDE 0293-308, refer to Appendix T9
(7-cored version number-coded)

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 1.0 mm²: U_0/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
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50 °C to +90 °C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 540 P U_0/U: 300/500 V				
0012452	2 X 0.75	6.2	14.4	52
0012453	3 G 0.75	6.7	21.6	63
00124543	4 G 0.75	7.3	28.8	80
00124553	5 G 0.75	8.2	36	98
0012456	7 G 0.75	9.9	51	126
0012457	2 X 1.0	6.7	19.2	53
0012458	3 G 1.0	7.1	29	72
00124593	4 G 1.0	7.7	38.4	96
00124603	5 G 1.0	8.6	48	117
0012461	7 G 1.0	10.4	68	147
ÖLFLEX® 540 P U_0/U: 450/750 V				
0012462	2 X 1.5	8.3	29	82
0012463	3 G 1.5	8.8	43	108
00124643	4 G 1.5	9.8	58	147
00124653	5 G 1.5	10.7	72	164
0012466	7 G 1.5	13.4	101	267
0012467	2 X 2.5	9.7	48	142
0012468	3 G 2.5	10.3	72	161
00124693	4 G 2.5	11.4	96	220
00124703	5 G 2.5	12.7	120	245
0012471	7 G 2.5	15.8	168	321
0012474	3 G 4	12.3	115.2	262
00124753	4 G 4	13.6	154	284
00124763	5 G 4	15.2	192	355
00124783	4 G 6	15.4	230	440
00124793	5 G 6	17.1	288	530
00124813	4 G 10	20.1	384	615
00124823	5 G 10	22.3	480	735

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 200 refer to page 72
- H07RN-F, enhanced version refer to page 92
- ÖLFLEX® 550 P* refer to page 88

Accessories

- SKINTOP® BS-M refer to page 719
- SKINTOP® MS-M refer to page 724
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

ÖLFLEX® 540 CP

Screened, cold-flexible, abrasion- and oil-resistant PUR connection cable for harsh conditions - VDE-registered

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
- Additional robustness thanks to inner sheath
- The signal colour of the outer sheath increases safety and visual perception

Application range

- Connection and extension cables
- Construction machinery
- Building sites, camp sites, stage applications
- Agricultural equipment
- 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

Norm references / Approvals

- VDE reg. no. 6583 up to 1.0 mm²
- VDE reg. no. 6584 from 1.5 mm²

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

Core identification code
Colours according to VDE 0293-308, refer to Appendix T9
(7-cored version number-coded)

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 1.0 mm²: U_0/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
Occasional flexing: -40°C to +90°C
Fixed installation: -50°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 540 CP U_0/U: 300/500 V				
0012752	2 X 0.75	8.2	43.9	103
0012753	3 G 0.75	8.5	67.6	140
00127553	5 G 0.75	10.2	75	164
0012757	2 X 1.0	8.5	65.2	138
0012758	3 G 1.0	9.3	74.9	153
00127603	5 G 1.0	10.8	87.2	184
0012761	7 G 1.0	12.6	138.5	281
ÖLFLEX® 540 CP U_0/U: 450/750 V				
0012762	2 X 1.5	10.5	67.7	159
0012763	3 G 1.5	11.0	82.3	181
00127643	4 G 1.5	12.0	101.8	218
00127653	5 G 1.5	13.7	143.3	287
0012766	7 G 1.5	16.6	195.7	394
0012767	2 X 2.5	11.9	92.4	213
0012768	3 G 2.5	12.5	119	263
00127693	4 G 2.5	14.2	168.2	334
00127703	5 G 2.5	15.7	204.7	416
00127753	4 G 4	17.0	240.1	476
00127783	4 G 6	18.4	355.5	634
00127793	5 G 6	20.5	452.9	770
00127813	4 G 10	22.3	577.8	993
00127823	5 G 10	25.3	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® 440 CP refer to page 82

Accessories

- SKINTOP® MS-SC-M refer to page 732
- SKINDICHT® SM-PE-M refer to page 763

ÖLFLEX® 550 P*

Power cord with PUR outer sheath and European harmonisation (HAR)

Info

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

Benefits

- Harmonised use in Europe
- 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

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

Product features

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

Norm references / Approvals

- EN 50525-2-21
- H05BQ-F/H07BQ-F design standard

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: rubber compound
- Cores twisted together
- PUR outer sheath
- Sheath colour: orange

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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
For flexible use:
12.5 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
Up to 1.0 mm²: U_0/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
Occasional flexing: -40 °C to +90 °C
Fixed installation: -50 °C to +90 °C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 550 P U_0/U: 300/500 V				
0013600	2 X 0.75	5.7 - 7.4	14.4	50
0013601	3 G 0.75	6.2 - 8.1	21.6	64
00136023	4 G 0.75	6.8 - 8.8	28.8	78
00136033	5 G 0.75	7.6 - 9.9	36	98
0013610	2 X 1.0	6.1 - 8.0	19.2	60
0013611	3 G 1.0	6.5 - 8.5	29	74
00136123	4 G 1.0	7.1 - 9.3	38.4	92
00136133	5 G 1.0	8.0 - 10.3	48	114
ÖLFLEX® 550 P U_0/U: 450/750 V				
0013620	2 X 1.5	7.6 - 9.8	29	87
0013621	3 G 1.5	8.0 - 10.4	43	108
00136223	4 G 1.5	9.0 - 11.6	58	137
00136233	5 G 1.5	9.8 - 12.7	72	165
0013630	2 X 2.5	9.0 - 11.6	48	90
0013631	3 G 2.5	9.6 - 12.4	72	161
00136323	4 G 2.5	10.7 - 13.8	96	206
00136333	5 G 2.5	11.9 - 16.3	120	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
* Trade product, no Lapp product
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBUST 200 refer to page 72
- H05RN-F refer to page 90
- H07RN-F refer to page 91
- H07RN-F, enhanced version refer to page 92
- ÖLFLEX® 500 P refer to page 85
- ÖLFLEX® 540 P refer to page 86

Accessories

- Cutting tools for various applications
- Stripping tools
- SKINTOP® MS-M refer to page 724
- SKINTOP® ST-M refer to page 712
- SKINTOP® BS-M METAL / SKINTOP® BSR-M METAL refer to page 726

H05RR-F

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

Info

- Light mechanical stress

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 EN 50565-2
- For lightweight workshop tools that are subject to light loads
- According to EN 50565-2: 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

Norm references / Approvals

- <HAR> cable type approval according to EN 50525-2-21

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

Core identification code
Coloured according to HD 308

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

Minimum bending radius
4 to 8 x outer diameter (EN 50565-1)

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

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

Current rating
According to IEC 60364-5-52/
VDE 0298-4
EN 50565-1/ VDE 0298-565-1

Temperature range
Flexible use: -25°C to +60°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H05RR-F				
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	19.2	73
1600208	3 G 1.0	6.5 - 8.5	28.8	86
16002113	4 G 1.0	7.1 - 9.3	38.4	105
1600205	2 X 1.5	7.6 - 9.8	28.8	115
1600200	3 G 1.5	8.0 - 10.4	43.2	135
16002013	4 G 1.5	9.0 - 11.6	57.6	165
16002023	5 G 1.5	9.8 - 12.7	72	190
1600206	2 X 2.5	9.0 - 11.6	48	160
1600209	3 G 2.5	9.6 - 12.4	72	190
16002123	4 G 2.5	10.7 - 13.8	96	235
16002133	5 G 2.5	11.9 - 15.3	120	285

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H05RN-F refer to page 90

H05RN-F

Rubber cable for handheld devices and chains of decorative lights

Info

- Oil-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

- According to EN 50565-2: for supplying devices in households, kitchens or offices under light mechanical stress; handheld inspection lamps
- According to EN 50565-2: 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 IEC 60332-1-2
- Oil-resistant according to EN 60811-404

Norm references / Approvals

- <HAR> cable type approval according to EN 50525-2-21

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

Core identification code
Coloured according to HD 308

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

Minimum bending radius
4 to 8 x outer diameter (EN 50565-1)

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

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

Current rating
According to IEC 60364-5-52/
VDE 0298-4
EN 50565-1/ VDE 0298-565-1

Temperature range
Flexible use: -25°C to +60°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H05RN-F				
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	28.8	105
1600251	2 X 1.0	6.1 - 8.0	19.2	95
1600253	3 G 1.0	6.5 - 8.5	28.8	115

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.

Similar products

- H07RN-F refer to page 91

H07RN-F

Heavy standard construction

Info

- Medium mechanical stress
- Oil-resistant

Benefits

- For mechanically more demanding applications
- 1000 V AC at protected + static laying
- 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 IEC 60364-5-52/ HD 60364-5-52/ VDE 0100 Part 520

Application range

- Handheld and power supply devices according to EN 50565-2
- Medium, mechanical stress
- Industrial, agricultural use
- According to EN 50565-2: In dry, damp and wet rooms as well as for fixed installation e.g. on the plaster

Product features

- Flame-retardant according IEC 60332-1-2
- Oil-resistant according to EN 60811-404

Norm references / Approvals

- <HAR> H07RN-F cable type approval according to EN 50525-2-21

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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

Minimum bending radius
4 to 8 x outer diameter (EN 50565-1)

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

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

Current rating
According to IEC 60364-5-52/ VDE 0298-4
EN 50565-1/ VDE 0298-565-1

Temperature range
-25 °C to +60 °C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H07RN-F				
1600096	1 X 1.5	5.7 - 7.1	14.4	59
1600099	1 X 2.5	6.3 - 7.9	24	72
1600097	1 X 4	7.2 - 9.0	38.4	99
1600098	1 X 6	7.9 - 9.8	57.6	130
1600194	1 X 10	9.5 - 11.9	96	230
1600195	1 X 16	10.8 - 13.4	153.6	320
1600196	1 X 25	12.7 - 15.8	240	450
1600193	1 X 35	14.3 - 17.9	336	605
1600197	1 X 50	16.5 - 20.6	480	825
1600189	1 X 70	18.6 - 23.3	672	1090
1600190	1 X 95	20.8 - 26.0	912	1405
1600198	1 X 120	22.8 - 28.6	1152	1745
1600191	1 X 150	25.2 - 31.4	1440	1887
1600175	1 X 185	27.6 - 34.4	1776	2274
1600177	1 X 240	30.6 - 38.3	2304	2955
30015435	1 X 300	33.5 - 41.9	2880	3479
1600117	3 G 1.0	8.3 - 10.7	28.8	130
1600199	2 X 1.5	8.5 - 11.0	28.8	135
1600103	3 G 1.5	9.2 - 11.9	43.2	165
16001233	4 G 1.5	10.2 - 13.1	57.6	200
16001043	5 G 1.5	11.2 - 14.4	72	240
1600151	7 G 1.5	14.7 - 18.7	100.8	385
1600148	12 G 1.5	17.6 - 22.4	172.8	516
1600259	19 G 1.5	20.7 - 26.3	273.6	800
1600166	24 G 1.5	24.3 - 30.7	345.6	882
1600263	25 G 1.5	25.1 - 25.9	360	920
1600187	2 X 2.5	10.2 - 13.1	48	195
1600118	3 G 2.5	10.9 - 14.0	72	235
16001053	4 G 2.5	12.1 - 15.5	96	290
16001293	5 G 2.5	13.3 - 17.0	120	294

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1600152	7 G 2.5	17.1 - 21.8	168	520
1600154	12 G 2.5	20.6 - 26.2	288	810
1600156	19 G 2.5	25.5 - 31.0	456	1200
1600157	24 G 2.5	28.8 - 36.4	576	1650
1600186	2 X 4	11.8 - 15.1	76.8	270
1600119	3 G 4	12.7 - 16.2	115.2	320
16001063	4 G 4	14.0 - 17.9	153.6	395
16001303	5 G 4	15.6 - 19.9	192	485
1600161	7 G 4	20.1 - 25.5	268.8	681
1600120	3 G 6	14.1 - 18.0	172.8	360
16001073	4 G 6	15.7 - 20.0	230.4	475
16001313	5 G 6	17.5 - 22.2	288	760
1600121	3 G 10	19.1 - 24.2	288	880
16001083	4 G 10	20.9 - 26.5	384	1060
16001093	5 G 10	22.9 - 29.1	480	1300
1600122	3 G 16	21.8 - 27.6	460.8	1090
16001103	4 G 16	23.8 - 30.1	614.4	1345
16001113	5 G 16	26.4 - 33.3	768	1680
16001123	4 G 25	28.9 - 36.6	960	1995
16001133	5 G 25	32.0 - 40.4	1200	2470
1600124	3 G 35	29.3 - 37.1	1008	1910
16001143	4 G 35	32.5 - 41.4	1344	2645
16001363	5 G 35	35.7 - 45.1	1680	2810
16001153	4 G 50	37.7 - 47.5	1920	3635
1600126	5 G 50	41.8 - 53.0	2400	4050
16001163	4 G 70	42.7 - 54.0	2688	4830
16001283	4 G 95	48.4 - 61.0	3648	6320
16001323	4 G 120	53.0 - 66.0	4608	6830
16000883	4 G 150	58.0 - 73.0	5760	8320
1600141	4 G 185	64.0 - 80.0	7104	9800
1600183	4 G 240	72.0 - 91.0	9216	12800

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H07RN-F, enhanced version refer to page 92

Accessories

- SKINTOP® CLICK System
- EASY STRIP stripping and cutting tool refer to page 1004

H07RN-F, enhanced version

Halogen-free; Long-run submersion; Bending/Loop Torsion (WTG): -40°C to +90°C; UV/Ozone resistant

Info

- Halogen-free & Low Smoke density
- Loop Torsion/Flexible: -40°C to +90°C
- 100m long-run submersion, UV/ Ozone resistant

Benefits

- 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 IEC 60364-5-52/ HD 60364-5-52/ VDE 0100 Part 520
- More water-resistant than H07RN-F and H07RN8-F
- Conductor temperature range more suitable for outdoor installation and wider than H07RN-F, H07ZZ-F, H07BN4-F und NSSHÖU

Application range

- Medium, mechanical stress and industrial and agricultural use as well as for handheld and power supply devices (H07RN-F according to EN 50565-2)
- Drip loop torsion between the nacelle and the tower of wind turbine generators/ windmills
- Outdoors acc. EN 50565-2
- For buildings or industrial plants with a high density of people or valuable assets

Product features

- Oil resistant according to EN 60811-404; Good resistance to abrasion, atmospheric agents, grease and mineral oils
- UV-, Ozone- (acc. EN 60811), Cold- (-40 °C flexible at the conductor) and Heat-resistant (+90 °C at the conductor)
- Drip loop torsion resistant (wind turbine) ==>TW-0, TW-1 and TW-2: -40 °C to +90 °C / 2,000 cycles (5,000 cycles from +5 °C)/ torsion angle of +/-150 ° per metre at one revolution per minute
- Long-time water submersion (AD8) down to 100 m without interruption (no drinking water, minimum water temperature of +5 °C, standing water only, no areas with boat/ ship/ submarine traffic)
- Halogen-free acc. EN 50267-2 (sub-parts -1 and -2), flame-retardant according to IEC 60332-1-2 and low smoke density (LS) acc. EN 61034-2

Norm references / Approvals

- <HAR> H07RN-F cable type approval according to EN 50525-2-21

Product Make-up

- Strands of bare copper wires
- Core insulation: special rubber
- Outer sheath: special rubber compound

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Moved: 6 x Outer diameter
Fixed installation: 4 x Outer diameter

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V AC

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

Current rating
According to IEC 60364-5-52/ VDE 0298-4
EN 50565-1/ VDE 0298-565-1

Temperature range
Moved: -40°C to +90°C
Fixed installation: -50°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H07RN-F, enhanced version				
4533027	3 G 1.0	8.3 - 10.7	28.8	140
4533061	4 G 1.0	9.2 - 11.9	38.4	160
4533062	4 X 1.0	9.2 - 11.9	38.4	160
4533091	5 G 1.0	10.2 - 13.1	48	200
4533000	1 X 1.5	5.7 - 7.1	14.4	55
4533020	2 X 1.5	8.5 - 11.0	28.8	125
4533029	3 G 1.5	9.2 - 11.9	43.2	172
4533063	4 G 1.5	10.2 - 13.1	57.6	200
4533064	4 X 1.5	10.2 - 13.1	57.6	200
4533093	5 G 1.5	11.2 - 14.4	72	250
4533111	7 G 1.5	14,7 - 18,7	100.8	430
4533113	12 G 1.5	17.6 - 22.4	172.8	620
4533001	1 X 2.5	6.3 - 7.9	24	72
4533021	2 X 2.5	10.2 - 13.1	48	173
4533031	3 G 2.5	10.9 - 14.0	72	225
4533065	4 G 2.5	12.1 - 15.5	96	285
4533066	4 X 2.5	12.1 - 15.5	96	285
4533095	5 G 2.5	13.3 - 17.0	120	345
4533115	12 G 2.5	20.6 - 26.2	288	850
4533002	1 X 4	7.2 - 9.0	38.4	98
4533022	2 X 4	11.8 - 15.1	76.8	239
4533033	3 G 4	12.7 - 16.2	115.2	325
4533067	4 G 4	14.0 - 17.9	153.6	395
4533097	5 G 4	15.6 - 19.9	192	485
4533003	1 X 6	7.9 - 9.8	57.6	127
4533023	2 X 6	13.1 - 16.8	115.2	330

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
4533035	3 G 6	14.1 - 18.0	172.8	415
4533069	4 G 6	15.7 - 20.0	230.4	535
4533099	5 G 6	17.5 - 22.2	288	648
4533004	1 X 10	9.5 - 11.9	96	192
4533024	2 X 10	17,7 - 22,6	192	590
4533037	3 G 10	19.1 - 24.2	288	712
4533071	4 G 10	20.9 - 26.5	384	920
4533005	1 X 16	10.8 - 13.4	153.6	262
4533039	3 G 16	21.8 - 27.6	460.8	990
4533073	4 G 16	23.8 - 30.1	614.4	1290
4533006	1 X 25	12.7 - 15.8	240	375
4533041	3 G 25	26.1 - 33.0	720	1395
4533075	4 G 25	28.9 - 36.6	960	1930
4533101	5 G 25	32.0 - 40.4	1200	2500
4533007	1 X 35	14.3 - 17.9	336	493
4533043	3 G 35	29.3 - 37.1	1008	1815
4533077	4 G 35	32.5 - 41.4	1344	2470
4533103	5 G 35	35.7 - 45.1	1680	3250
4533008	1 X 50	16.5 - 20.6	480	675
4533045	3 G 50	34.1 - 42.9	1440	2470
4533079	4 G 50	37.7 - 47.5	1920	3320
4533105	5 G 50	41.8 - 53.0	2400	4408
4533009	1 X 70	18.6 - 23.3	672	914
4533081	4 G 70	42.7 - 54.0	2688	4420
4533107	5 G 70	47.5 - 60.0	3360	5863
4533010	1 X 95	20.8 - 26.0	912	1200
4533083	4 G 95	48.4 - 61.0	3648	5750
4533109	5 G 95	54.0 - 67.0	4560	7537
4533011	1 X 120	22.8 - 28.6	1152	1481
4533085	4 G 120	53.0 - 66.0	4608	6990
4533012	1 X 150	25.2 - 31.4	1440	1833
4533087	4 G 150	58.0 - 73.0	5760	8650
4533013	1 X 185	27.6 - 34.4	1776	2190
4533089	4 G 185	64.0 - 80.0	7104	9785
4533014	1 X 240	30.6 - 38.3	2304	2780
4533015	1 X 300	33.5 - 41.9	2880	3310
4533016	1 X 400	37.4 - 46.8	3840	4320
4533017	1 X 500	41.3 - 52.0	4800	5342

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- V 1311-A pressing pliers, hydraulic refer to page 1030
- STAR STRIP stripping tool refer to page 1000
- KT cable shears refer to page 999
- PVL 1300 pressing pliers battery-operated refer to page 1031

H07ZZ-F

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

Info

- Public buildings

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
- According to EN 50565-2: In dry, damp and wet rooms as well as for fixed installation e.g. on the plaster
- 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
- Low smokes/low smoke density in the event of fire according to IEC 61034
- Ozone-resistant acc. to EN 50363-6, EN 60811-403, EN 50396-8.1.3

Norm references / Approvals

- <HAR> H07ZZ-F cable type approval according to EN 50525-3-21

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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

Minimum bending radius
4 to 8 x outer diameter (EN 50565-1)

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
EN 50565-1/ VDE 0298-565-1

Temperature range
Static/Moved: -40°C/-5°C ...to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H07ZZ-F				
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	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	185
1600821	4 G 2.5	12.1 - 15.5	96	235
1600822	5 G 2.5	13.3 - 17.0	120	290
1600823	7 G 2.5	17,1 - 21,8	168	520
1600825	14 G 2.5	22.2 - 25.0	336	860
1600836	4 G 4	14.0 - 17.9	153.6	325
1600837	5 G 4	15.6 - 19.9	192	410
1600841	4 G 6	15.7 - 20.0	230.4	440
1600842	5 G 6	17.5 - 22.2	288	550
1600844	4 G 10	20.9 - 26.5	384	770
1600845	5 G 10	22.9 - 29.1	480	950
1600847	4 G 16	23.8 - 30.1	614.4	1070
1600849	4 G 25	28.9 - 36.6	960	1570
1600851	4 G 35	32.5 - 41.1	1344	2040
1600852	4 G 50	37.7 - 47.5	1920	2810

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H07RN-F refer to page 91
- H07RN-F, enhanced version refer to page 92

Accessories

- SKINTOP® CLICK System
- EASY STRIP stripping and cutting tool refer to page 1004
- PEW 8.87 crimping pliers refer to page 1016
- KS 20 cable shears refer to page 999

H01N2-D

Normative arc-welding cable

Info

- Arc welding cable according to EN 50525-2-81
- Formerly, VDE type NSLFFÖU

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

- Use the welding cable only under consideration of EN 50565-2
- For use on handheld electrode holder up to 100 V
- Can be used in dry or damp rooms
- For transmitting high currents from the electric welding device to the welding tool

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- <HAR> H01N2-D cable type approval according to EN 50525-2-81

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000824
ETIM 5.0 Class-Description: Welding cable

Conductor stranding
H01N2-D according to EN 50525-2-81

Minimum bending radius
Flexible use: 12 x outer diameter

Nominal voltage
U_0/U: 100/100 V

Test voltage
1000 V

Current rating
According to VDE 0298 Part 4, table 16
EN 50565-1/ VDE 0298-565-1

Temperature range
Flexible use: -25°C to +85°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H01N2-D				
2310026	10	7.7 - 9.7	96	171
2210700	16	8.8 - 11.0	153.6	198
2210701	25	10.1 - 12.7	240	305
2210702	35	11.4 - 14.2	336	415
2210703	50	13.2 - 16.5	480	555
2210704	70	15.3 - 19.2	672	765
2210705	95	17.1 - 21.4	912	1010
2210706	120	19.2 - 24.0	1152	1262
2210707	150	21,1 - 26,4	1440	1610
2210708	240	25,8 - 32,1	2304	2520

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- KS 20 cable shears refer to page 999

NSSHÖU

Mechanically robust rubber cable for mining and surface mining

Benefits

- For use at very high mechanical stress
- Single-core design suitable for robust connection cables for welding equipment
- Not antistatic

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 IEC 60332-1-2
- Oil-resistant according to EN 60811-404
- High notch resistance
- Abrasion-resistant
- The outer diameters stated in the part number table are maximum values

Norm references / Approvals

- <VDE> NSSHÖU cable type approval according to VDE 0250-812

Product Make-up

- 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

Info

- Mining
- Outdoors
- Oil-resistant

Technical data

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

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

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
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NSSHÖU-O				
1600500	1 X 16	10.9	153.6	260
1600501	1 X 25	13.3	240	390
1600502	1 X 35	14.4	336	500
1600503	1 X 50	16.7	480	680
1600504	1 X 70	18.9	672	900
1600505	1 X 95	21.0	912	1150
1600506	1 X 120	23.3	1152	1440
1600507	1 X 150	25.2	1440	1750
1600508	1 X 185	28.4	1776	2180
1600509	1 X 240	31.4	2304	2790
NSSHÖU-J				
1600516	3 G 1.5	11.8	43.2	200
16005243	4 G 1.5	12.7	57.6	230
16005333	5 G 1.5	13.6	72	280
1600517	3 G 2.5	13.2	72	260
16005253	4 G 2.5	15.4	96	360
16005343	5 G 2.5	16.5	120	420
1600541	7 G 2.5	20.0	168	600
1600544	12 G 2.5	26.0	288	860
16005263	4 G 4	16.9	153.6	470
16005353	5 G 4	18.2	192	550
16005273	4 G 6	18.3	230.4	580
16005363	5 G 6	20.6	288	740
16005283	4 G 10	22.3	384	950
16005373	5 G 10	24.1	480	1100
16005293	4 G 16	26.1	614	1400
16005383	5 G 16	28.3	768	1720
16005303	4 G 25	31.2	960	2000
16005313	4 G 35	34.1	1344	2700
16005323	4 G 50	41.0	1920	3700

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- H07RN-F, enhanced version refer to page 92
- ÖLFLEX® CRANE VS (N)SHTÖU refer to page 163
- ÖLFLEX® CRANE PUR refer to page 164

Accessories

- STAR STRIP stripping tool refer to page 1000
- KT cable shears refer to page 999

NSGAFÖU 1,8/3 kV

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

Info

- Public transport
- Control panel internal wiring

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; short-circuit-proof up to 1000 V in switching stations and power distributors
- 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 IEC 60332-1-2
- Oil-resistant according to EN 60811-404
- Normative rated voltage classes U_0/U 0.6/1 kVac and 3.6/6 kVac available on request
- The outer diameters stated in the part number table are maximum values

Norm references / Approvals

- <VDE> NSGAFÖU 1,8/3 kV cable type approval according to VDE 0250-602

Product Make-up

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

Technical data

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

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
U_0/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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NSGAFÖU 1,8/3 kV				
1600300	1.5	7.0	14.4	60
1600301	2.5	7.5	24	70
1600302	4	9.0	38.4	90
1600303	6	9.5	57.6	120
1600304	10	11.0	96	180
1600305	16	13.0	153.6	250
1600306	25	15.0	240	390
1600307	35	16.5	336	470
1600308	50	18.0	480	625
1600309	70	20.5	672	880
1600310	95	24.0	912	1190
1600311	120	26.0	1152	1430
1600312	150	28.0	1440	1750
1600313	185	31.0	1776	2160
1600314	240	34.5	2304	2640
3026826	300	38.0	2880	3545

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- V 1311-A pressing pliers, hydraulic refer to page 1030
- KS 20 cable shears refer to page 999
- PVL 1300 pressing pliers battery-operated refer to page 1031

NSHXAFÖ 1,8/3 kV

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

Info

- Public transport
- Control panel internal wiring
- Halogen-free

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; short-circuit-proof up to 1000 V in switching stations and power distributors
- 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

- The outer diameters stated in the part number table are maximum values
- 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 IEC 60332-1-2
- Normative rated voltage classes U_0/U 0.6/1 kVac and 3.6/6 kVac available on request

Norm references / Approvals

- <VDE> NSHXAFÖ 1,8/3 kV cable type approval according to VDE 0250-606

Product Make-up

- Fine copper wire strands
- Core insulation: halogen-free rubber compound, type 3GI3
- Outer coating: halogen-free polymer compound, type HM3
- No outer sheath

Technical data

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

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
U_0/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)
NSHXAFÖ 1,8/3 kV				
3022673	1.5	7.0	14.4	60
3022674	2.5	7.5	24	70
3022675	4	9.0	38.4	90
3022676	6	9.5	57.6	120
3022677	10	11.0	96	180
3022678	16	13.0	153.6	250
3022679	25	15.0	240	390
3022680	35	16.5	336	470
3022681	50	18.0	480	625
3022682	70	20.5	672	880
3022683	95	24.0	912	1190
3022684	120	26.0	1152	1430
3022685	150	28.0	1440	1750
3022686	185	31.0	1776	2160
3022687	240	34.5	2304	2718
3022688	300	38.0	2880	3470

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- V 1311-A pressing pliers, hydraulic refer to page 1030
- KS 20 cable shears refer to page 999
- PVL 1300 pressing pliers battery-operated refer to page 1031

H07RN8-F

Submersible pump cable; Formerly: “ÖLFLEX® AQUA RN8”

Info

- Use down to 10 m depth
- Submersible pump cable
- Oil-resistant

Benefits

- Submersion, considering application standards, e.g. EN 50565-2
- According to EN 50565, 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

- According to EN 50565-2: Dry or damp rooms, as well as outdoors and in industrial water
- For connecting mobile, electrical equipment in industrial water
- For use with submersible pumps
- Submersion acc. AD8 standard down to 10 m depth

Product features

- Flame-retardant according IEC 60332-1-2
- Oil-resistant according to EN 60811-404
- Flexible

Norm references / Approvals

- <HAR> cable type approval according to EN 50525-2-21

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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

Minimum bending radius
4 to 8 x outer diameter (EN 50565-1)

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

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

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Conductor:Fix/Moved:
-40/-25°C to+60°C
Max. water temperature: +40°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
H07RN8-F				
1600600	1 X 4	7.2 - 9.0	38.4	100
1600601	1 X 6	7.9 - 9.8	57.6	120
1600602	1 X 10	9.5 - 11.9	96	200
1600604	1 X 25	12.7 - 15.8	240	400
1600606	3 G 1.5	9.2 - 11.9	43.2	170
1600609	4 G 1.5	10.2 - 13.1	57.6	205
1600620	7 G 1.5	14.0 - 17.5	100.8	385
1600607	3 G 2.5	10.9 - 14.0	72	210
1600610	4 G 2.5	12.1 - 15.5	96	260
1600621	7 G 2.5	16.5 - 20.0	168	520
1600611	4 G 4	14.0 - 17.9	153.6	356
1600612	4 G 6	15.7 - 20.0	230.4	475
1600613	4 G 10	20.9 - 26.5	384	837
1600614	4 G 16	23.8 - 30.1	614.4	1220
1600615	4 G 25	28.9 - 36.6	960	1770
1600616	4 G 35	32.5 - 41.1	1344	2304

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

- H07RN-F refer to page 91
- H07RN-F, enhanced version refer to page 92

Accessories

- SKINTOP® CLICK System
- EASY STRIP stripping and cutting tool refer to page 1004
- PEW 8.87 crimping pliers refer to page 1016
- KS 20 cable shears refer to page 999

ÖLFLEX® SERVO 700

Servo cable with shielded control pairs and PVC outer sheath for static use

Info

- Power, brake, temperature
- Fits to servo drive systems from various manufacturers
- Without overall screening

Benefits

- One common cable for multiple circuits

Application range

- Connecting cable between servo controller and motor
- For static and occasionally flexible use
- Industrial machinery and plant engineering
- Only for outdoor use within the indicated operating temperature range, with UV-protection
- In dry, damp or wet interiors with normal mechanical stress conditions

Product features

- Flame retardant acc. to IEC 60332-1-2

Norm references / Approvals

- Core based on VDE 0812/0250/0285
- Outer sheath based on VDE 0245/0285

Product Make-up

- Fine-wire, bare copper conductor
- 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).
- Core and pairs are twisted together
- PVC outer sheath, grey (RAL 7001)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Versions with 2 pairs or 1 star quad:
Power cores: black with white numbers 1-3 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
Versions with 1 control pair:
Power cores: (4+7 cored): black with white numbers 3-5 or 3-8 and GN/YE protective conductor;
Power cores (5 cored): coloured according to VDE 0293-1
Control cores: black with white numbers 1-2

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
Power cores: U_0/U 600/1000 V
Control core pairs: 250 V/AC

Test voltage
Power cores:
C/C: 4000 V; C/S: 2000V
Control cores:
C/C: 1500 V; C/S: 750 V

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

Temperature range
Occasional flexing: -5°C to +80°C
Fixed installation: -40°C to +80°C

Accessories

- EPIC® POWER LS1
- SKINTOP® ST-M refer to page 712

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 700				
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	149
0036001	5 G 1,5 + (2 x 0,75)	12.7	110	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® SERVO 720 CY

Screened encoder cable with PVC outer sheath for static use

Info

- Feedback signalling
- Fits to various encoder systems
- In EMC-sensitive environments

Benefits

- Thin, lightweight, reliable functionality
- Easy to install
- Total screening reduces interferences from nearby cables

Application range

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

Product features

- Flame-retardant according to IEC 60332.1.2

Norm references / Approvals

- Core based on VDE 0812/0285
- Outer sheath based on VDE 0250/0285
- 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

Product Make-up

- Fine-wire, bare copper conductor
- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
0036170 pairs: rd/bk, bn/gn, gy/pk, bl/vt; single cores: wt, bn
0036175 cores 0.14: wt, bn, gn, ye, gy, pk, bl, rd, bk, vt; cores 0.5: wt, bn
0036177 cores 0.14: wt, bn, gn, ye, gy, pk, bl, rd, bk, vt; cores 0.5: wt, bn, bl, bk
0036178 cores 0.5: wh, bn, gn, ye; cores 0.14 DIN 47100 from grey
0036181 pairs 0.14: rd/bk, bn/gn, ye/vt, gy/pk; single core 0.5: wh, bl, wtgn, bngn
0036168 pairs: 0.14 gn/ye, rd/bl, gy/pk; single core 0.5: wt, bn

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

Conductor stranding
Fine wire acc. 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: 2000 V
C/S: 1000 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® SERVO 720 CY				
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	129

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 798 CP refer to page 112
- Special Encoder and resolver cables refer to page 118

Accessories

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

ÖLFLEX® SERVO 2YSLCY-JB

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

Benefits

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

Application range

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

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- Based on VDE 0207 / 0250 / 0295

Product Make-up

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

Info

- EMC-optimised design
- 4-core design in transparent or black
- 3+3 symmetry reduces common-mode interference effects

Technical data

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

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

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

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/U: 600/1000 V

Test voltage
Core/Core: 4 kV
Core/Screen: 4 kV

Protective conductor
G = with GN-YE protective conductor
X = witout protective conductor
Protective conductor of 3+3 version is gusset-filling divided between power cores

Temperature range
Flexing: -5°C to +70°C
3+3 core version: -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® SERVO 2YSLCY-JB / 4-core version - transparent outer sheath				
0036425	4 G 1.5	11.4	95	230
0036426	4 G 2.5	12.4	150	300
0036427	4 G 4	15.6	235	485
0036428	4 G 6	17.0	320	630
0036429	4 G 10	19.6	533	860
0036430	4 G 16	22.1	789	1290
0036431	4 G 25	26.3	1236	1860
0036432	4 G 35	29.5	1662	2610
0036433	4 G 50	35.8	2345	2950
0036434	4 G 70	40.3	3196	3950
0036435	4 G 95	46.5	4316	5300
0036436	4 G 120	53.2	5435	6600
0036437	4 G 150	57.3	6394	7043
0036438	4 G 185	62.3	7639	8384
ÖLFLEX® SERVO 2YSLCY-JB BK / 4-core version - black outer sheath				
1136450	4 G 1.5	11.4	95	230
1136451	4 G 2.5	12.4	150	300
1136452	4 G 4	15.6	235	485
1136453	4 G 6	17.0	320	630
1136454	4 G 10	19.6	533	860
1136455	4 G 16	22.1	789	1290
1136456	4 G 25	26.3	1236	1860
1136457	4 G 35	29.5	1662	2610
1136458	4 G 50	35.8	2345	2950
1136459	4 G 70	40.3	3196	3950
1136460	4 G 95	46.5	4316	5300
1136461	4 G 120	53.2	5435	6600
1136462	4 G 150	57.3	6394	7043
1136463	4 G 185	62.3	7639	8384
ÖLFLEX® SERVO 2YSLCYK-JB / 3+3 core version - black outer sheath, cold flexible				
0036439	3 X 1,5 + 3 G 0,25	11.4	88	140
0036440	3 X 2,5 + 3 G 0,5	12.2	144	220
0036441	3 X 4 + 3 G 0,75	14.4	224	323
0036442	3 X 6 + 3 G 1,0	15.7	276	420
0036443	3 X 10 + 3 G 1,5	18.0	491	615
0036444	3 X 16 + 3 G 2,5	20.2	723	819
0036445	3 X 25 + 3 G 4	23.8	1136	1325
0036446	3 X 35 + 3 G 6	26.9	1535	1718
0036447	3 X 50 + 3 G 10	32.6	2156	2399
0036448	3 X 70 + 3 G 10	36.4	2871	3056
0036449	3 X 95 + 3 G 16	42.0	3953	4162
0036450	3 X 120 + 3 G 16	47.8	4836	5074
0036451	3 X 150 + 3 G 25	51.6	5412	6128
0036479	3 X 185 + 3 G 35	56.5	7041	7500
0036453	3 X 240 + 3 G 50	65.1	8986	9770

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 9YSLCY-JB refer to page 104

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® SERVO 719 CY

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

Info

- Successor of ÖLFLEX® SERVO 700 CY and ÖLFLEX® SERVO 709 CY
- Low-capacitance design
- EMC-compliant

Benefits

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

Application range

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

Product features

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

Norm references / Approvals

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

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE protective conductor
Single-paired versions: black; white
Double-paired versions: black with white numbers 5; 6; 7; 8
0,34mm² pairs: WH/BN/GN/YE

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

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 6 x outer diameter

Nominal voltage
Power cores and control cores:
IEC U_0/U: 600/1000 V
UL & CSA: 1000 V

Test voltage
Core/Core: 4 kV
Core/Screen: 4 kV

Protective conductor
G = with GN-YE protective conductor

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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 719 CY				
1020010	4 G 1,5	8.4	83	130
1020011	4 G 2,5	9.9	125	190
1020012	4 G 4	11.7	191	273
1020013	4 G 6	13.7	290	394
1020014	4 G 10	16.7	452	581
1020015	4 G 16	20.1	721	884
1020016	4 G 25	24.3	1100	1348
1020017	4 G 35	27.7	1548	1840
1020018	4 G 50	33.7	2151	2645
1020019	4 G 1,5 + (2 x 1,5)	11.5	146	242
1020020	4 G 2,5 + (2 x 1,5)	12.9	189	306
1020021	4 G 4 + (2 x 1,5)	15.0	271	420
1020022	4 G 6 + (2 x 1,5)	17.0	351	529
1020023	4 G 10 + (2 x 1,5)	19.5	540	752
1020024	4 G 0,75 + 2 x (2 x 0,34)	9.7	99	163
1020025	4 G 1,5 + 2 x (2 x 0,75)	12.3	150	245
1020026	4 G 2,5 + 2 x (2 x 1,0)	14.7	223	357
1020027	4 G 4 + 2 x (2 x 1,0)	16.4	288	452
1020028	4 G 4 + (2 x 1,0) + (2 x 1,5)	16.6	307	469
1020029	4 G 6 + (2 x 1,0) + (2 x 1,5)	18.5	421	617
1020030	4 G 10 + (2 x 1,0) + (2 x 1,5)	22.1	588	852
1020031	4 G 16 + 2 x (2 x 1,5)	25.0	876	1162
1020032	4 G 25 + 2 x (2 x 1,5)	28.7	1227	1590
1020033	4 G 35 + 2 x (2 x 1,5)	30.6	1652	2023
1020034	4 G 50 + 2 x (2 x 2,5)	37.0	2264	2876

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EPIC® POWER LS1
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® SERVO 9YSLCY-JB

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

Benefits

- EMC-compliant installation of power drive systems conforming to EN 61800-3
- High power transmission for large drives
- Longer cable connection possible between frequency converter and drive due to low capacitance design
- Symmetrical 3+3 Version supports the reduction of bearing currents
- 9YSLCY black design: also for outdoor applications, as well as buried underground, but not for USA or Canada

Application range

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

Product features

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

Norm references / Approvals

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

Product Make-up

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

Info

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

Technical data

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

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

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

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
IEC U_0/U: 600/1000 V
UL & CSA: 1000 V

Test voltage
4000 V

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

Temperature range
Flexing:
IEC: transparent -5°C to +70°C
IEC: black -5°C to +90 °C
UL/CSA: -5°C to +80°C
Fixed installation:
IEC: transparent -40°C to +80°C
IEC: black -40°C to +90°C
UL/CSA: -40°C to +80°C

ÖLFLEX® SERVO 9YSLCY-JB / 4-core version - transparent outer sheath

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0037000	4 G 1,5	10.5	87	230
0037001	4 G 2,5	11.8	133	300
0037002	4 G 4	13.3	213	485
0037003	4 G 6	14.9	298	630
0037004	4 G 10	17.7	460	860
0037005	4 G 16	21.5	707	1290
0037006	4 G 25	26.3	1100	1860
0037007	4 G 35	29.7	1542	2610
0037008	4 G 50	34.1	2206	2950
0037009	4 G 70	40.9	3002	3950
0037010	4 G 95	45.4	4004	5300
0037011	4 G 120	49.8	5108	6600
0037012	4 G 150	56.1	6225	7043
0037013	4 G 185	61.4	7568	8384
0037014	4 G 240	67.9	9940	12150

ÖLFLEX® SERVO 9YSLCY-JB / 3+3 core version - black outer sheath

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

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 2YSLCY-JB refer to page 102

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® SERVO 7DSL

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

Info

- OCS - One Cable Solution
- Suitable for Hiperface DSL® motor-feedback systems
- EMC-compliant

Benefits

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

Application range

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

Product features

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

Norm references / Approvals

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

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

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

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

Minimum bending radius
For flexible use:
15 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
Power and control:
IEC: U_0/U: 600/1000 V
UL: 1000 V
Signal pair: 300 V

Test voltage
Power and control: 4 kV
Signal pair: 1kV

Protective conductor
G = with GN-YE protective conductor

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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Hybrid cables for fixed installation				
1023290	4 G 1,5 + (2 x 22AWG)	11.2	110	194
1023291	4 G 2,5 + (2 x 22AWG)	12.6	148	253
1023292	4 G 4 + (2 x 22AWG)	14.0	208	332
1023293	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13.2	140	250
1023294	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.0	185	285
1023295	4 G 4 + (2 x 1,0) + (2 x 22AWG)	15.8	248	390

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
HIPERFACE DSL® is a registered trademark of SICK AG
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 719 CY refer to page 103

Accessories

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

SERVO cables in acc. to SIEMENS® Standard 6FX 5008-

Motor and resolver/encoder cables - certified

Benefits

- Motor & servo motor cables up to 6 mm²: low capacitance characteristics due to PP insulation
- Multi-standard certification reduces part varieties and saves costs

Application range

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

Product features

- Oil-resistant
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- EMC-compliant

Norm references / Approvals

- Power cable: VDE-registered UL/CSA AWM Style 2570
- Signal cables: UL/CSA AWM style 2502
- UL File No. E63634

Product Make-up

- 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)

Info

- Servo drives
- EMC-compliant

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

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 (IEC)
30 V AC/DC (UL/CSA)
Power cable:
- Power cores:
U_0/U 600/1000 V (IEC)
1000 V (UL/CSA)
- Control cores:
30 V AC (IEC)
1000 V (UL/CSA)

Test voltage
Power cable:
Power cores: 4000 V
Control cores: 2000 V
Signal cables: 500 V

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

Article number	Number of cores and mm² 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	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	139
Motor cables					
00257001	4 G1.5	6FX5008-1BB11 LC	8.0	88	131
00257011	4 G2.5	6FX5008-1BB21 LC	9.6	132	219
00257021	4 G4	6FX5008-1BB31 LC	11.0	195	312
00257031	4 G6	6FX5008-1BB41 LC	13.1	280	380
0025704	4 G10	6FX5008-1BB51	19.3	445	620
0025705	4 G16	6FX5008-1BB61	23.3	715	1060
0025706	4 G25	6FX5008-1BB25	26.9	1110	1640
0025707	4 G35	6FX5008-1BB35	30.3	1540	2310
0025708	4 G50	6FX5008-1BB50	36.5	2160	3240
Servo cables					
00257151	4 G 1,5 + (2 x 1,5)	6FX5008-1BA11 LC	10.4	150	248
00257161	4 G 2,5 + (2 x 1,5)	6FX5008-1BA21 LC	12.0	194	310
00257171	4 G 4 + (2 x 1,5)	6FX5008-1BA31 LC	13.6	272	445
00257181	4 G 6 + (2 x 1,5)	6FX5008-1BA41 LC	15.6	351	554
0025719	4 G 10 + (2 x 1,5)	6FX5008-1BA51	21.0	536	806

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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.

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 110
- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 114

Accessories

- Circular connectors
- SKINTOP® EMC/Earthing

SERVO Cables in acc. to SEW® Standard

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

Info

- Servo drives
- EMC-compliant

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Longer cable installation lengths thanks to low mutual capacitance cable design
- Copper braiding screens the cable against electromagnetic interference

Application range

- Specially designed to connect SEW servomotors
- Connecting cable between servo controller and motor
- For static and occasionally flexible use
- Industrial machinery and machine tools
- Plant engineering

Product features

- Oil-resistant
- Flame-retardant acc. to IEC 60332-1-2, UL VW-1 & CSA FT 1

Norm references / Approvals

- Based on VDE 0250 / 0285
- UL-AWM-Style 2570
- UL File No. E63634

Product Make-up

- Fine-wire, bare copper conductor
- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

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

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: 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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Servo cables				
0038060	4 G 1,5 + (3 x 1,0)	11.8	151	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733

ÖLFLEX® SERVO FD 781 CY

Screened, low capacitive servo cable with PVC outer sheath for flexible power chain application

Info

- Core Line for ordinary duty in power chain applications
- EMC-compliant

Benefits

- Well-proven and reliable
- Longer cable connection possible between frequency converter and drive due to low capacitance design
- Copper screening complies with EMC requirements and protects against electromagnetic interference

Application range

- Connecting cable between Frequency converter and motor
- In power chains or moving machine parts
- 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

- Oil-resistant
- Flame retardant acc. to IEC 60332-1-2
- Low-adhesive surface
- Designed for 5 million alternating bending cycles and travel distances up to 10 meter

Norm references / Approvals

- Based on VDE 0250 / 0285
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 600/1000 V

Test voltage
Core/Core: 4 kV
Core/Screen: 4 kV

Protective conductor
G = with gn-ye protective conductor

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® SERVO FD 781 CY				
0036320	4 G 1.5	9.8	89	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	1565.4	2264
0036328	4 G 50	38.3	2174.9	3090

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 110
- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 114

Accessories

- Rectangular connectors
- EPIC® POWER LS1
- SKINTOP® EMC/Earthing

ÖLFLEX® SERVO FD 796 P

Servo cable with PUR outer sheath for highly dynamic power chain application - certified for North America

Info

- Extended Line for heavy duty in power chain applications
- AWM certification for USA and Canada
- VDE-tested characteristics

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Longer cable connection possible between frequency converter and drive due to low capacitance design
- 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
- Multi-standard certification reduces part varieties and saves costs

Application range

- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines
- For indoor and outdoor use

Product features

- Dynamic power chain performance: Acceleration up to 50 m/s². Travel speeds up to 5 m/s. Travel distances up to 100 m.
- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Flammability: UL/CSA: VW-1, FT1 IEC/EN: 60332-1-2
- Halogen-free materials
- Abrasion and notch-resistant
- Oil-resistant

Norm references / Approvals

- VDE - reg - no. 8591 (from 4G1,5) UL AWM Style 20234 cULus AWM I/II A/B, 1000V 80° FT1 CSA AWM I/II A, 1000V 80° FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: polypropylene (PP)
- According to P/N individual design: Power cores with one or with two control pair(s), twisted together in short lay length
- Non-woven wrapping
- PUR outer sheath, black (RAL 9005)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE protective conductor
Single-paired versions: black; white
Double-paired versions: black with white numbers 5; 6; 7; 8
0,34mm² pairs: WH/BN/GN/YE

Conductor stranding
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 U_0/U: 600/1000 V
UL & CSA: 1000 V

Test voltage
Core/Core: 4 kV
Core/Screen: 2 kV

Protective conductor
G = with GN-YE protective conductor

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing:
-40°C to +90°C (UL/CSA: +80°C)
Fixed installation:
-50°C to +90°C (UL/CSA: +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 P				
0025319	4 G 1,5 + (2 x 1,5)	11,7	99	217
0025320	4 G 2,5 + (2 x 1,5)	13,1	134	270
0025321	4 G 4 + (2 x 1,5)	14,2	195	333
0025322	4 G 6 +(2 x 1,5)	16	272	403
0025323	4 G 10 + (2 x 1,5)	18,4	425	581
0025324	4 G 16 + (2 x 1,5)	22,1	656	887
0025326	4 G 0,75 + 2 x (2 x 0,34)	10,9	54	143
0025327	4 G 1,5 + 2 x (2 x 0,75)	12,3	103	209
0025328	4 G 2,5 + 2 x (2 x 1,0)	14,3	152	306
0025312	4 G 4 + 2 x (2 x 1,0)	15,4	218	381
0025329	4 G 4 + (2 x 1,0) + (2 x 1,5)	15,6	231	388
0025330	4 G 6 + (2 x 1,0) + (2 x 1,5)	17,1	308	460

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
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 110

Accessories

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

ÖLFLEX® SERVO FD 796 CP

Screened servo cable with PUR outer sheath for highly dynamic power chain application - certified

Info

- Extended Line for heavy duty in power chain applications
- AWM certification for USA and Canada
- VDE-tested characteristics

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Suitable for use with servomotor product lines from leading drive manufacturers
- Longer cable connection possible between frequency converter and drive due to low capacitance design
- 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
- Copper braiding screens the cable against electromagnetic interference

Application range

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

Product features

- Dynamic power chain performance:
  Acceleration up to 50 m/s².
  Travel speeds up to 5 m/s.
  Travel distances up to 100 m.
- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Halogen-free materials
- Abrasion and notch-resistant
- Oil-resistant

Norm references / Approvals

- VDE - Reg. - No. 8591
  UL AWM Style 20234
  cULus AWM I/II A/B, 1000V 80° FT1
  CSA AWM I/II A, 1000V 80° FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: polypropylene (PP)
- Individual design depending on the item: power cores without or with one or two individually screened control core pairs twisted together in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE protective conductor
Optional designs with
one pair of control cores: black; white
Two pairs of control cores: black with white numbers: 5, 6, 7, 8

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 (1.5-16 mm²)
10 x outer diameter (25-50 mm²)
Fixed installation: 4 x outer diameter

Nominal voltage
Power cores and control cores:
IEC U_0/U: 600/1000 V
UL & CSA: 1000 V

Test voltage
Core/Core: 4 kV
Core/Screen: 2 kV

Protective conductor
G = with GN-YE protective conductor

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing:
-40°C to +90°C (UL/CSA: +80°C)
Fixed installation:
-50°C to +90°C (UL/CSA: +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	9,1	79	140
0027951	4 G 2,5	10,6	129	197
0027952	4 G 4	11,9	186	268
0027953	4 G 6	14,5	296	397
0027954	4 G 10	17,5	449	591
0027955	4 G 16	21,6	716	955
0027956	4 G 25	25,2	1073	1337
0027957	4 G 35	28,6	1480	1769
0027958	4 G 50	33,4	2115	2468
0027959	4 G 1,5 + (2 x 1,5)	11,6	135	261
0027960	4 G 2,5 + (2 x 1,5)	13,4	188	318
0027961	4 G 4 + (2 x 1,5)	14,8	235	385
0027962	4 G 6 + (2 x 1,5)	16,8	329	486
0027963	4 G 10 + (2 x 1,5)	19,4	515	701
0027964	4 G 16 + (2 x 1,5)	23,1	757	1048
0027965	4 G 25 + (2 x 1,5)	26,6	1147	1532
0027966	4 G 35 + (2 x 1,5)	30,9	1538	2097
0027967	4 G 50 + (2 x 1,5)	34	2181	2721
0027969	4 G 1,5 + 2 x (2 x 0,75)	12,2	155	313

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027970	4 G 2,5 + 2 x (2 x 1,0)	14,6	212	395
0027980	4 G 4 + 2 x (2 x 1,0)	16,1	274	466
0027971	4 G 4 + (2 x 1,0) + (2 x 1,5)	16,3	339	485
0027972	4 G 6 + (2 x 1,0) + (2 x 1,5)	18,1	441	588
0027973	4 G 10 + (2 x 1,0) + (2 x 1,5)	21,8	606	819
0027974	4 G 16 + 2 x (2 x 1,5)	25,5	797	1135
0027975	4 G 25 + 2 x (2 x 1,5)	28,8	1182	1559
0027976	4 G 35 + 2 x (2 x 1,5)	30,9	1583	2093
0027977	4 G 50 + 2 x (2 x 2,5)	36,3	2252	2920

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

Accessories

- Circular connectors
- SKINTOP® EMC/Earthing

ÖLFLEX® SERVO FD 798 CP

Screened encoder cable with PUR outer sheath for highly dynamic power chain application - certified

Info

- Extended Line for heavy duty in power chain applications
- Fits to various encoder systems
- AWM certification for USA and Canada

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Suitable for use with encoders & resolvers from leading manufacturers
- Thin, optimised for weight and volume
- 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

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and speed generators
- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines
- For indoor and outdoor use

Product features

- Dynamic power chain performance:
  Acceleration up to 50 m/s².
  Travel speeds up to 5 m/s.
  Travel distances up to 100 m.
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Halogen-free materials
- Low-capacitance design
- Abrasion and notch-resistant
- Oil-resistant

Norm references / Approvals

- UL AWM Style 20236
- CSA AWM IA/B; IIA/B FT 1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Details see datasheet ÖLFLEX®
SERVO FD 798 CP

Conductor stranding
Fine wire or extra-fine wire

Minimum bending radius
Flexible use: 7.5 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
IEC: 30 V
UL & CSA: 30 V

Test voltage
Core/core: 1500 V rms
Core/screen: 750 V rms

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing:
-40°C to +90°C (UL/CSA: +80°C)
Fixed installation:
-50°C to +90°C (UL/CSA: +80°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO FD 798 CP				
0036910	4x2x0,34+4x0,5	8,9	79	125
0036911	3x(2x0,14)+2x(0,5)	8,9	70	120
0036912	3x(2x0,14)+4x0,14+2x0,5	8,8	68	110
0036913	3x(2x0,14)+4x0,14+2x0,5+4x0,22	9,4	80	130
0036914	9x0,5	8,8	71	110
0036915	4x2x0,25+2x1,0	8,8	63	109
0036916	6x2x0,25+2x0,5	10,3	67	121
0036917	10x0,14+2x0,5	7,7	41	82
0036918	10x0,14+4x0,5	8,1	54	98
0036920	4x2x0,14+4x0,5	8,2	51	95
0036921	4x2x0,25	7,6	38	75
0036923	8x2x0,18	7,8	51	85
0036924	4x2x0,18	6,4	30	52
0036926	12x0,22	6,9	44	73
0036927	4x2x0,25+2x0,5	8,5	62	98
0036928	2x2x0,14+2x(2x0,14)+4x0,5+(4x0,14)	9,1	79	135
0036929	2x(2x0,25)+2x0,5	8,7	46	98
0036930	2x2x0,25+2x0,5	7,3	38	72

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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

- Circular connectors
- SILVYN® CHAIN cable protection and guiding systems

NEW

ÖLFLEX® SERVO FD 7DSL

Low capacitive hybrid servo cable with PUR outer sheath for highly dynamic power chain application - certified

Info

- OCS - One Cable Solution
- Suitable for Hiperface DSL® motor-feedback systems
- Extended Line for heavy duty in power chain applications

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Only one connection line between drive and motor-feedback system. Instead of the encoder cable an integrated DSL pair takes over the signalling.
- Less cables and reduced connection costs
- Space and weight savings thanks to hybrid cable design
- 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

Application range

- Power drive systems in automation engineering
- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines

Product features

- Dynamic power chain performance: Acceleration up to 50 m/s². Travel speeds up to 5 m/s. Travel distances up to 20m.
- Maximum DSL transmission lenght: 100m
- Flammability: UL/CSA: VW-1, FT1 IEC/EN: 60332-1-2
- Halogen-free materials
- Low-capacitance design
- Oil-resistant

Norm references / Approvals

- UL AWM Style 21223 cRU AWM I/II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine-wire, bare copper conductor (power cores and control pair) and 19-wire, tinned copper conductor (signal pair)
- Core insulation: polypropylene (PP)
- Individual design depending on the item: power cores without or with one screened control pair and one DSL signal pair twisted together
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

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

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
DSL pair: 19-wired

Minimum bending radius
For flexible use: 7.5 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
Power and control: IEC: U_0/U: 600/1000 V
UL: 1000 V
Signal pair: 300 V

Test voltage
Power and control: 4 kV
Signal pair: 1kV

Protective conductor
G = with GN-YE protective conductor

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing: -40°C to +90°C (UL: +80°C)
Fixed installation: -50°C to +90°C (UL: +80°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO FD 7DSL				
Hybrid cables for power chain applications				
1023275	4 G 1,5 + (2 x 22AWG)	11,2	115	198
1023276	4 G 2,5 + (2 x 22AWG)	12,6	160	269
1023277	4 G 4 + (2 x 22AWG)	14	218	343
1023274	4 G 1 + (2 x 0,75) + (2 x 22AWG)	11,8	133	202
1023278	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13,2	152	256
1023279	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14	195	313
1023280	4 G 4 + (2 x 1,0) + (2 x 22AWG)	15,8	268	407

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
HIPERFACE DSL® is a registered trademark of SICK AG
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 7DSL refer to page 105
- ÖLFLEX® SERVO FD 796 CP refer to page 110

Accessories

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

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

Motor and resolver/encoder cables - certified

Info

- Servo drives
- PUR outer sheath
- EMC-compliant

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

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

Product features

- Dynamic power chain performance: Acceleration up to 50 m/s². Travel speeds up to 5 m/s. Travel distances up to 100 m.
- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Abrasion and cut-resistant, halogen-free, oil-resistant
- Flame-retardant according to IEC 60332-1-2 & CSA FT1

Norm references / Approvals

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

Product Make-up

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

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Details see datasheet

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6

Minimum bending radius
Power cable:
Fixed: 4 x Diameter
Dynamic:
1.5 mm² - 16 mm²: 7.5 x Diameter
25 mm² - 50 mm²: 10 x Diameter
Signal cable:
Fixed: 4 x Diameter
Dynamic: 8 x Diameter

Nominal voltage
Signal cables:
30 V AC/DC
Power cable:
- Power cores:
U_0/U 600/1000 V (IEC)
1000 V (UL/CSA)
- Control cores:
24 V AC/DC (IEC)
1000 V (UL/CSA)

Test voltage
Power cable: 4 KV
Signal cables: 500 V

Protective conductor
G = with GN-YE protective conductor

Alternating bending cycles
10 mio. cycles

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	85
00277111	4 x 2 x 0,38 + 4 x 0,5	6FX8008-1BD21	8,9	77	120
00277121	3 x (2 x 0,14) + 2 x (0,5)	6FX8008-1BD31	8,9	69	113
00277131	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5	6FX8008-1BD41	8,8	66	101
00277141	3 x (2 x 0,14) + 4 x 0,14 + 2 x 0,5 + 4 x 0,22	6FX8008-1BD51	9,4	86	139
00277151	4 x 2 x 0,18	6FX8008-1BD61	6,4	34.25	53
00277161	2 x 2 x 0,18	6FX8008-1BD71	5	23.1	36
00277171	12 x 0,22	6FX8008-1BD81	6,9	48	76
00277992	2 x 2 x 0,15 + 1 x 2 x 0,38	6FX8008-2DC00	7,2	39	67
Motor cables					
0027784	4 G1.5	6FX8008-1BB11-Plus	9,1	90	150
0027785	4 G2.5	6FX8008-1BB21-Plus	10,6	132	220
0027786	4 G4	6FX8008-1BB31-Plus	11,9	204	300
0027787	4 G6	6FX8008-1BB41-Plus	14,5	315	450
0027788	4 G10	6FX8008-1BB51-Plus	17,5	488	660
0027789	4 G16	6FX8008-1BB61-Plus	21,6	769	1010
Servo cables					
0027790	4 G 1,5 + (2 x 1,5)	6FX8008-1BA11-Plus	11,6	146	230
0027791	4 G 2,5 + (2 x 1,5)	6FX8008-1BA21-Plus	13,4	187	300

Article number	Number of cores and mm² per conductor	Reference article no.	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027792	4 G 4 + (2 x 1,5)	6FX8008-1BA31-Plus	14,8	258	380
0027793	4 G 6 + (2 x 1,5)	6FX8008-1BA41-Plus	16,8	365	530
0027794	4 G 10 + (2 x 1,5)	6FX8008-1BA51-Plus	19,4	560	765
0027795	4 G 16 + (2 x 1,5)	6FX8008-1BA61-Plus	23,1	816	1090
0027796	4 G 25 + (2 x 1,5)	6FX8008-1BA25-Plus	26,6	1166	1530
0027797	4 G 35 + (2 x 1,5)	6FX8008-1BA35-Plus	30,9	1554	2040
0027798	4 G 50 + (2 x 1,5)	6FX8008-1BA50-Plus	34	2188	2760

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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

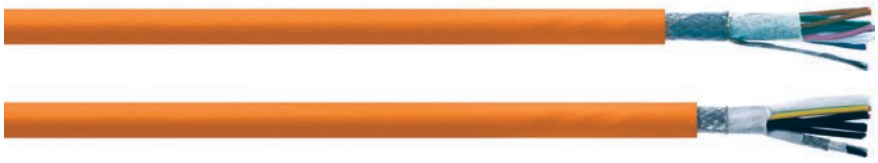
- ÖLFLEX® SERVO FD 796 CP refer to page 110

Accessories

- Circular connectors
- SKINTOP® EMC/Earthing

SERVO cables in acc. to INDRAMAT® Standard INK

Motor and resolver/encoder cables - certified



Info

- Servo drives
- PUR outer sheath
- EMC-compliant

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and motor
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Designed for 5 million alternating bending cycles
- For horizontal travel distances up to 100m
- Abrasion and cut-resistant, halogen-free, oil-resistant
- Flame-retardant according to IEC 60332-1-2 & CSA FT1

Norm references / Approvals

- Power cable:
  UL Style 20234, CSA AWM I/II A/B
- Signal cables:
  UL Style 20236, CSA AWM I/II A/B
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- In accordance with INDRAMAT® standard INK (also suitable for pre-assembled versions, IKS and IKG)
- Core insulation: TPE
- Refer to data sheet for more details
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Details see datasheet

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 outer diameter

Nominal voltage
Power cable:
- Power cores:
U_0/U 600/1000 V (IEC)
1000 V (UL/CSA)
- Control cores:
250 V AC (IEC)
1000 V (UL/CSA)
Signal cables:
300 V (IEC), 300 V (UL/CSA)

Test voltage
Power cable:
Power cores: 4000 V
Control cores: 2000 V
Signal cables: 500 V

Protective conductor
G = with GN-YE protective conductor

Alternating bending cycles
5 mio. cycles

Temperature range
Fixed installation: -50°C to +80°C
Flexing: -30°C to +80°C

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 110

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	120
7072401	4 x 2 x 0,25 + 2 x 0,5	INK-0448	8,5	70	100
7072402	9 x 0,5	INK-0208	8,8	75	126
7072414	4 x 1,0 + 4 x 2 x 0,14 + 4 x 0,14	INK-0532	9,7	81	140
7072415	2 x (2 x 0,25) + 2 x 0,5	INK-0234	8,7	46	90
7072416	2 x 2 x 0,25 + 2 x 0,5	INK-0750	7,6	35	92
Servo cables					
7072417	4 G 0,75 + 2 x 0,5	INK-0670	10	73	132
7072403	4 G 1,0 + 2 x (2 x 0,75)	INK-0653	11,5	170	226
7072404	4 G 1,5 + 2 x (2 x 0,75)	INK-0650	12,2	189	268
7072405	4 G 2,5 + 2 x (2 x 1,0)	INK-0602	15,1	212	320
7072406	4 G 4 + (2 x 1,0) + (2 x 1,5)	INK-0603	16	306	470
7072407	4 G 6 + (2 x 1,0) + (2 x 1,5)	INK-0604	18,8	366	600
7072408	4 G 10 + (2 x 1,0) + (2 x 1,5)	INK-0605	22	565	850
7072409	4 G 16 + 2 x (2 x 1,5)	INK-0606	25,2	838	1020
7072410	4 G 25 + 2 x (2 x 1,5)	INK-0607	28	1231	1420

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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.

SERVO cables in acc. to LENZE® Standard

Motor and resolver/encoder cables - certified

Info

- Servo drives
- For static or highly flexible use
- EMC-compliant

Benefits

- Motor cables with low-capacitance
- Multi-standard certification reduces part varieties and saves costs

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and motor
- Plant engineering
- Assembly lines, production lines, in all kinds of machines

Norm references / Approvals

- Resolver and encoder cable:
  UL AWM Style 2464 for fixed installation versions,
  UL AWM Style 21165 for highly flexible applications,
  CSA AWM I/II A/B
- Motor cable:
  UL AWM Style 2570 for fixed installation version,
  UL AWM Style 20940 for high flexibility use,
  CSA AWM I/II A/B
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Design according to LENZE® standard:
- Designs for fixed installation:
  PVC outer sheath, PP core insulation.
- Designs for highly flexible use:
  PUR outer sheath, TPE core insulation
- Refer to data sheet for more details
- Signal cables: green (RAL 6018)
- Servo cable: orange (RAL 2003)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Encoder cables
- 7072508 (fixed installation)
bk/ye+bk/gn+bk/rd+bk/bu+bk/wh
- 7072517 (flexible use)
gn/ye+bu/rd+gy/pk+bk/vt+bn/wh
Resolver cables:
- 7072507 (fixed installation)
bk/ye+bk/gn+bk/rd+bk/wh
- 7072516 (flexible use)
gn/ye+bu/rd+gy/pk+bn/wh

Minimum bending radius
Flexible use: 10 x outer diameter
Fixed installation: 7.5 x outer diameter

Nominal voltage
Signal cables:
30 V (VDE), 300 V (UL/CSA)
Power cables:
- Power cores:
U_0/U 0.6/1 kV (VDE),
600 V (UL/CSA)
- Control cores:
24 V (VDE)
600 V (UL/CSA)

Test voltage
Signal cable: 1.5 kV
Motor cable:
- Power cores: 4 kV
- Control cores: 2 kV

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 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	81	128
7072501	4 G 1,5 + (2 x 0,5)	11,2	106	173
7072502	4 G 2,5 + (2 x 0,5)	12,3	153	244
Screened encoder cable with PVC outer sheath for static use				
7072507	3 x (2 x 0,14) + 1 x (2 x 0,5)	9,3	43	91
7072508	4 x (2 x 0,14) + 1 x (2 x 1,0)	11	65	136
Motor cables for power chain application				
7072509	4 G 1,0 + (2 x 0,5)	10	81	151
7072510	4 G 1,5 + (2 x 0,5)	11,5	106	192

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
7072511	4 G 2,5 + (2 x 0,5)	13,2	153	271
7072512	4 G 4 + (2 x 1,0)	14,6	235	373
7072513	4 G 6 + (2 x 1,0)	16,8	316	477
7072514	4 G 10 + (2 x 1,0)	20,1	513	710
7072515	4 G 16 + (2 x 1,0)	23,8	710	1015
Resolver & encoder cable for power chain applications				
7072516	3 x (2 x 0,14) + 1 x (2 x 0,5)	10	44	107
7072517	4 x (2 x 0,14) + 1 x (2 x 1,0)	11,5	65	145

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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
- SKINTOP® EMC/Earthing

Special Encoder and resolver cables

Compatible with various drive systems

Info

- Fits to various encoder systems
- PUR outer sheath
- AWM certification for USA and Canada

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

- Servo drives and servo assemblies
- 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

- Abrasion and notch-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332-1-2 & CSA FT1

Norm references / Approvals

- UL/CSA AWM Styles please refer to data sheet
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Design according to specific OEM standard
- Refer to data sheet for more details
- PUR outer sheath
- Outer sheath colour: see part table

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

General
More technical information of the abovementioned servo cables are available upon request.

Article number	Number of cores and mm² 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	92
70388719	3 x (2 x 0,14) + 2 x (0,5)	8,3	black	64	100
70388720	3 x (2 x 0,14) + 2 x (1,0)	9,1	black	64	115
70388721	4 x 2 x 0,14 + 4 x 0,5 + (4 x 0,14)	8,3	black	56	102
Suitable for ELAU					
70388722	3 x 2 x 0,25 + 2 x 0,5	8,4	green	44	95
Suitable for KEB					
70388724	3 x (2 x 0,14) + 2 x (0,5)	8,1	green	64	100
Suitable for Berger Lahr					
70388726	5 x 2 x 0,25 + 2 x 0,5	9,5	green	56	120
Suitable for B & R					
70388727	3 x 2 x 24AWG	6,5	green	28	60
70388728	5 x 2 x 0,14 + 2 x 0,5	7,8	green	40	80
Suitable for FANUC					
70388730	5 x 0,5 + 2 x 2 x 0,18	7,6	green	94	169
70388731	2 x 0,5 + 4 x 2 x 0,22	7,6	green	72	120
70388732	3 x 2 x0,18 + 6 x 0,5	8,7	green	105	189
70388733	3 x 2 x 0,18 + 6 x 1,0	8,7	green	140	252
70388734	5 x 2 x 0,18 + 6 x 0,5	8,7	green	114	205
70388735	10 x 2 x 24 AWG	9	green	60	121

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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 798 CP refer to page 112
- SERVO cables in acc. to SIEMENS® Standard 6FX 8PLUS refer to page 114
- SERVO cables in acc. to INDRAMAT® Standard INK refer to page 116

Accessories

- Circular connectors
- SKINTOP® EMC/Earthing
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CLASSIC FD 810

Highly flexible control cable with PVC core insulation and PVC sheath

Info

- Core Line for ordinary duty in power chain applications
- The classic for multi-functional use

Benefits

- Well-proven and reliable
- Cost-effective solution
- Low particle emission at moved chain application

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
- In damp or wet interiors
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according IEC 60332-1-2
- Low-adhesive surface

Norm references / Approvals

- Core based on VDE 0245/0285
- Outer sheath based on VDE 0245/0285
- Clean room classification for individual items on request
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® CLASSIC FD 810				
0026100	2 X 0.5	5.3	10	40
0026101	3 G 0.5	5.7	15	48
0026102	4 G 0.5	6.3	19.2	58
0026103	5 G 0.5	6.8	24	67
0026104	7 G 0.5	8	34	88
0026105	12 G 0.5	9.5	58	136
0026106	18 G 0.5	11.4	86.4	195
0026107	25 G 0.5	13.7	120	274
0026108	30 G 0.5	14.3	144	312
0026109	34 G 0.5	15.6	164	359
0026110	50 G 0.5	18.5	240	515
0026119	2 X 0.75	5.7	15	49
0026120	3 G 0.75	6.2	22	60
0026121	4 G 0.75	6.8	29	73
0026122	5 G 0.75	7.4	37	86
0026123	7 G 0.75	8.9	51	117
0026124	12 G 0.75	10.6	87	181
0026125	16 G 0.75	12	116	234
0026126	18 G 0.75	12.7	130	259
0026127	25 G 0.75	15.2	181	363
0026130	2 X 1.0	6.1	19	58
0026131	3 G 1.0	6.6	29	72
0026132	4 G 1.0	7.3	39	88
0026133	5 G 1.0	8	48	104
0026134	7 G 1.0	9.6	67	142
0026135	12 G 1.0	11.4	115	221
0026136	14 G 1.0	12.3	134.4	258
0026137	16 G 1.0	13	153	287
0026138	18 G 1.0	13.9	173	324
0026139	25 G 1.0	16.4	240	445
0026140	26 G 1.0	16.4	249.6	459

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026141	34 G 1.0	18.9	326.4	595
0026142	41 G 1.0	20.6	394	712
0026143	50 G 1.0	22.3	480	854
0026144	65 G 1.0	25.4	624	1097
0026149	2 X 1.5	6.8	29	74
0026150	3 G 1.5	7.4	43.2	93
0026151	4 G 1.5	8.1	58	114
0026152	5 G 1.5	9.1	72	139
0026153	7 G 1.5	10.9	101	189
0026154	12 G 1.5	12.9	173	295
0026156	18 G 1.5	15.6	259	429
0026157	25 G 1.5	18.6	360	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	613	936
0026161	42 G 1.5	23	629	954
0026162	50 G 1.5	25	720	1134
0026170	3 G 2.5	9	72	145
0026171	4 G 2.5	10	96	179
0026172	5 G 2.5	11.2	120	218
0026173	7 G 2.5	13.6	168	303
0026174	12 G 2.5	16	288	473
0026175	14 G 2.5	17.2	336	548
0026180	3 G 4	10.6	120	214
0026181	4 G 4	11.7	160	266
0026182	5 G 4	13.1	200	325
0026183	4 G 6	13.9	230.4	396
0026184	5 G 6	15.5	288	484
0026185	4 G 10	17.6	384	644
0026186	5 G 10	19.6	480	785
0026187	4 G 16	21	615	922
0026188	5 G 16	23.6	768	1133

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 891 refer to page 127

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CLASSIC FD 810 CY

Highly flexible, screened control cable with PVC core insulation and PVC inner and outer sheath

Info

- Core Line for ordinary duty in power chain applications
- The classic for multi-functional use
- EMC-compliant

Benefits

- Well-proven and reliable
- Cost-effective solution
- Additional robustness thanks to inner sheath
- Copper screening complies with EMC requirements and protects against electromagnetic interference

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
- Only for outdoor use within the indicated operating temperature range, with UV-protection

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according IEC 60332-1-2
- Low-adhesive surface
- EMC-compliant

Norm references / Approvals

- Core based on VDE 0245/0285
- Outer sheath based on VDE 0245/0285
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® CLASSIC FD 810 CY				
0026200	2 X 0.5	6.9	33	74
0026201	3 G 0.5	7.3	39	84
0026202	4 G 0.5	7.9	46	98
0026203	5 G 0.5	8.4	54	110
0026204	7 G 0.5	9.8	70	143
0026205	12 G 0.5	11.3	100	201
0026206	18 G 0.5	13.4	153	287
0026207	25 G 0.5	15.9	202	394
0026208	30 G 0.5	16.5	228	432
0026219	2 X 0.75	7.3	39	85
0026220	3 G 0.75	7.8	48	99
0026221	4 G 0.75	8.4	59	116
0026222	5 G 0.75	9	69	133
0026223	7 G 0.75	10.7	90	178
0026224	12 G 0.75	12.4	129	253
0026226	18 G 0.75	14.9	205	368
0026227	25 G 0.75	17.4	271	496
0026229	30 G 0.75	18	320	549
0026230	2 X 1.0	7.7	46	97
0026231	3 G 1.0	8.2	57	114
0026232	4 G 1.0	8.9	70	134
0026233	5 G 1.0	9.8	81	159
0026234	7 G 1.0	11.4	110	207
0026235	12 G 1.0	13.4	182	314

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026238	18 G 1.0	16.1	254	443
0026239	25 G 1.0	18.8	365	612
0026240	26 G 1.0	18.8	374	625
0026241	34 G 1.0	21.5	463	787
0026242	41 G 1.0	23.2	542	918
0026243	50 G 1.0	25.3	640	1120
0026249	2 X 1.5	8.4	58	117
0026250	3 G 1.5	9	75	139
0026251	4 G 1.5	9.9	91	169
0026252	5 G 1.5	10.9	112	201
0026253	7 G 1.5	12.7	145	262
0026254	12 G 1.5	15.1	247	404
0026255	16 G 1.5	16.8	314	503
0026256	18 G 1.5	17.8	348	560
0026257	25 G 1.5	21.2	498	793
0026259	34 G 1.5	23.9	700	1005
0026270	3 G 2.5	10.8	119	207
0026271	4 G 2.5	11.8	161	247
0026272	5 G 2.5	13.2	194	307
0026273	7 G 2.5	15.8	262	418
0026281	4 G 4	13.7	238	360
0026282	5 G 4	15.3	280	436
0026283	4 G 6	16.1	318	514
0026285	4 G 10	20.2	521	824
0026287	4 G 16	23.6	780	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 891 CY refer to page 128

Accessories

- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 809 SC

Highly flexible, single core cable with PVC insulation and PVC sheath - certified for North America

Info

- Basic Line for light & ordinary duty in power chain applications
- AWM certification for USA and Canada

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Easy to install
- Multifunctional application possibilities
- Under consideration of the temperature range also suitable for flexible outdoor use

Application range

- In power chains or moving machine parts
- For internal wiring of electric and electronic equipment in switch cabinets
- This cable can substitute multi-core power cables where space requirements or minimum bending radii cause problems
- Specially designed for power circuits of servomotors driven by frequency converters
- Test systems in the automotive industry, vehicles and stationary fuel cell systems

Product features

- Designed for 2 million alternating bending cycles and travel distances up to 10 meter
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Oil-resistant according to DIN EN 50290-2-22 (TM54)
- Low-adhesive surface

Norm references / Approvals

- Based on VDE 0250 / 0285
- UL-AWM-Style 10107
  cRU AWM II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: PVC
- PVC outer sheath, black (RAL 9005)

Technical data

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

Core identification code
Black or green-yellow, other colours available on request

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

Minimum bending radius
Flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
IEC: U_0/U 600/1000 V
UL & CSA: 600 V

Test voltage
4000 V

Alternating bending cycles
2 mio. cycles

Temperature range
Flexing: 0°C to +70°C (UL: +90°C)
Fixed installation: -40°C to +70°C (UL: +90°C)

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Core colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CHAIN 809 SC					
1062900	6	7.4	green-yellow	57.6	101
1062901	6	7.4	black	57.6	101
1062902	10	9	green-yellow	96	158
1062903	10	9	black	96	158
1062904	16	9.9	green-yellow	153.6	217
1062905	16	9.9	black	153.6	217
1062906	25	11.3	green-yellow	240	307
1062907	25	11.3	black	240	307
1062908	35	13.1	green-yellow	336	427
1062909	35	13.1	black	336	427
1062910	50	15.9	green-yellow	480	611
1062911	50	15.9	black	480	611
1062912	70	17.6	green-yellow	672	778
1062913	70	17.6	black	672	778
1062914	95	19.8	green-yellow	912	1015
1062915	95	19.8	black	912	1015
1062916	120	23	green-yellow	1152	1296
1062917	120	23	black	1152	1296
1062918	150	24.8	green-yellow	1440	1597
1062919	150	24.8	black	1440	1597
1062920	185	27.1	green-yellow	1776	1971
1062921	185	27.1	black	1776	1971
1062922	240	30.6	green-yellow	2304	2419
1062923	240	30.6	black	2304	2419

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 90 P
- ÖLFLEX® FD 90 refer to page 123

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 809 SC CY

Highly flexible, screened single core cable with PVC insulation and PVC sheath - certified for North America

Info

- Basic Line for light & ordinary duty in power chain applications
- AWM certification for USA and Canada
- EMC compliant copper screening

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Easy to install
- Multifunctional application possibilities
- Under consideration of the temperature range also suitable for flexible outdoor use
- Copper braiding screens the cable against electromagnetic interference

Application range

- In power chains or moving machine parts
- For internal wiring of electric and electronic equipment in switch cabinets
- This cable can substitute screened multi-core motor cables where space requirements or minimum bending radii cause problems
- Specially designed for power circuits of servomotors driven by frequency converters
- Test systems in the automotive industry, vehicles and stationary fuel cell systems

Product features

- Designed for 2 million alternating bending cycles and travel distances up to 10 meter
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Oil-resistant according to DIN EN 50290-2-22 (TM54)
- Low-adhesive surface
- EMC-compliant

Norm references / Approvals

- Based on VDE 0250 / 0285
- UL-AWM-Style 10107
  cRU AWM II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: PVC
- Non-woven wrapping
- Tinned-copper braiding
- Non-woven wrapping
- PVC outer sheath, black (RAL 9005)

Technical data

Core identification code
Black, other colours are available upon request

Specific insulation resistance
> 20 GOhm x cm

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

Minimum bending radius
Flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
IEC: U_0/U 600/1000 V
UL & CSA: 600 V

Test voltage
4000 V

Alternating bending cycles
2 mio. cycles

Temperature range
Flexing: 0°C to +70°C (UL: +90°C)
Fixed installation: -40°C to +70°C (UL: +90°C)

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CHAIN 809 SC CY				
1062940	6	8.1	76	126
1062941	10	9.7	122	190
1062942	16	10.6	180	250
1062943	25	12	268	351
1062944	35	14.8	392	519
1062945	50	16.8	544	686
1062946	70	18.5	766	885
1062947	95	20.9	1020	1135
1062948	120	24.1	1272	1443
1062949	150	26.1	1593	1788
1062950	185	28.4	1941	2177
1062951	240	31.9	2518	2671
1062952	300	33.5	3116	3299

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 90 CP
- ÖLFLEX® FD 90 CY refer to page 124

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD 90

Highly flexible, single core cable with PVC insulation and PVC sheath - certified for North America

Info

- Core Line for ordinary duty in power chain applications
- Well-proven and reliable
- AWM certification for USA and Canada

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Multifunctional application possibilities
- Under consideration of the temperature range also suitable for flexible outdoor use
- Also suitable for fixed installation where space is limited

Application range

- In power chains or moving machine parts
- For internal wiring of electric and electronic equipment in switch cabinets
- This cable can substitute multi-core power cables where space requirements or minimum bending radii cause problems
- Specially designed for power circuits of servomotors driven by frequency converters
- Test systems in the automotive industry, vehicles and stationary fuel cell systems

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- High oil-resistance
- Low-adhesive surface

Norm references / Approvals

- Based on VDE 0250 / 0285
- UL-AWM-Style 10107, cRU AWM II A/B FT1 ≥150mm²
- CSA AWM IA/B IIA/B FT 1 ≤ 120mm²
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine wire strand made of bare copper wires (class 6)
- Non-woven wrapping
- Core insulation: PVC
- PVC outer sheath, black (RAL 9005)

Technical data

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

Core identification code
Black or green-yellow, other colours available on request

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: U_0/U 600/1000 V
UL & CSA: 600 V

Test voltage
4000 V

Alternating bending cycles
5 mio. cycles

Temperature range
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Core colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FD 90					
0026600	10	9	green-yellow	96	176
0026601	10	9	black	96	176
0026603	16	10.5	green-yellow	153.6	240
0026604	16	10.5	black	153.6	240
0026607	25	11.8	green-yellow	240	361
0026608	25	11.8	black	240	361
0026610	35	14.2	green-yellow	336	482
0026611	35	14.2	black	336	482
0026613	50	16.2	green-yellow	480	660
0026614	50	16.2	black	480	660
0026616	70	18.3	green-yellow	672	898
0026617	70	18.3	black	672	898
0026619	95	19.8	green-yellow	912	1179
0026620	95	19.8	black	912	1179
0026622	120	23.4	green-yellow	1152	1521
0026623	120	23.4	black	1152	1521
0026625	150	25.1	green-yellow	1440	1739
0026626	150	25.1	black	1440	1739
0026628	185	28.1	green-yellow	1776	2305
0026629	185	28.1	black	1776	2305
0026634	240	31.6	green-yellow	2304	2944
0026635	240	31.6	black	2304	2944
0026640	300	33.5	green-yellow	2880	3545
0026641	300	33.5	black	2880	3545

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD 90 CY

Highly flexible, screened single core cable with PVC insulation and PVC sheath - certified for North America

Info

- Core Line for ordinary duty in power chain applications
- AWM certification for USA and Canada
- EMC compliant copper screening

Benefits

- Multi-standard certification reduces part varieties and saves costs
- For various applications
- Also suitable for fixed installation where space is limited
- Copper screening complies with EMC requirements and protects against electromagnetic interference

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
- This cable can substitute screened multi-core motor cables where space requirements or minimum bending radii cause problems
- Test systems in the automotive industry, vehicles and stationary fuel cell systems

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- High oil-resistance
- Low-adhesive surface
- EMC-compliant

Norm references / Approvals

- Based on VDE 0250 / 0285
- UL-AWM-Style 10107, cRU AWM II A/B FT1 ≥150mm²
- CSA AWM IA/B IIA/B FT 1 ≤ 120mm²
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine wire strand made of bare copper wires (class 6)
- Non-woven wrapping
- Core insulation: PVC
- Tinned-copper braiding
- PVC outer sheath, orange (RAL 2003)

Technical data

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

Core identification code
Black, other colours are available upon request

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: U_0/U 600/1000 V
UL & CSA: 600 V

Test voltage
4000 V

Alternating bending cycles
5 mio. cycles

Temperature range
Flexing: -5°C to +90°C
Fixed installation: -40°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FD 90 CY				
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	1028.1	1382
0026665	120	24.5	1282.4	1752
0026667	150	26.2	1410.4	1924
0026669	185	29.2	1935	2611
0026671	240	32.9	2526	3372
0026673	300	34.8	3128.8	4105

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 809

Highly flexible control cable with PVC core insulation and PVC sheath - certified for North America

Info

- Basic Line for light & ordinary duty in power chain applications
- AWM certification for USA and Canada

Benefits

- Good combination of quality and price
- Compact design
- Multi-standard certification reduces part varieties and saves costs
- Ideal for export-oriented machinery and equipment manufacturers

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

- Designed for 2 million alternating bending cycles and travel distances up to 10 meter
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Oil-resistant according to DIN EN 50290-2-22 (TM54)
- Low-adhesive surface

Norm references / Approvals

- UL AWM Style 20886
- CUL AWM II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Fine-wire, bare copper strand
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- PVC outer sheath, grey (RAL 7001)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

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
VDE: U_0/U: 300/500 V
UL & CSA: 1000 V

Test voltage
4000 V

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

Alternating bending cycles
2 mio. cycles

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)
ÖLFLEX® CHAIN 809				
1026700	2 X 0.5	5.2	10	40
1026701	3 G 0.5	5.5	15	48
1026702	4 G 0.5	6	20	58
1026703	5 G 0.5	6.5	24	67
1026704	7 G 0.5	7.7	34	88
1026705	12 G 0.5	9.2	58	136
1026706	18 G 0.5	11	87	195
1026707	25 G 0.5	13.3	120	274
1026708	2 X 0.75	5.6	15	49
1026709	3 G 0.75	6	22	60
1026710	4 G 0.75	6.5	29	73
1026711	5 G 0.75	7.1	37	86
1026712	7 G 0.75	8.5	51	117
1026713	12 G 0.75	10.3	87	181
1026714	18 G 0.75	12.2	130	259
1026715	25 G 0.75	14.8	181	363
1026716	2 X 1.0	5.9	19	58
1026717	3 G 1.0	6.3	29	72

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1026718	4 G 1.0	6.9	39	88
1026719	5 G 1.0	7.5	48	104
1026720	7 G 1.0	9	67	142
1026721	12 G 1.0	10.9	115	221
1026722	18 G 1.0	13.2	173	324
1026723	25 G 1.0	15.7	240	445
1026724	2 X 1.5	6.5	29	74
1026725	3 G 1.5	6.9	43.2	93
1026726	4 G 1.5	7.6	58	114
1026727	5 G 1.5	8.5	72	139
1026728	7 G 1.5	10.3	101	189
1026729	12 G 1.5	12.3	173	295
1026730	18 G 1.5	14.9	259	429
1026731	25 G 1.5	17.9	360	597
1026732	3 G 2.5	8.4	72	145
1026733	4 G 2.5	9.3	96	179
1026734	7 G 2.5	12.7	168	218
1026737	4 G 4	11.1	160	266

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 100 m; Drum (500; 1000) m
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CLASSIC FD 810 refer to page 119

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 809 CY

Highly flexible, screened control cable with PVC core insulation and PVC sheath - certified for North America

Info

- Basic Line for light & ordinary duty in power chain applications
- AWM certification for USA and Canada
- EMC compliant copper screening

Benefits

- Good combination of quality and price
- Thin and light, without inner sheath
- Multi-standard certification reduces part varieties and saves costs
- Ideal for export-oriented machinery and equipment manufacturers
- Copper screening complies with EMC requirements and protects against electromagnetic interference

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

- Designed for 2 million alternating bending cycles and travel distances up to 10 meter
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Oil-resistant according to DIN EN 50290-2-22 (TM54)
- Low-adhesive surface

Norm references / Approvals

- UL AWM Style 20886
- CUL AWM II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Fine-wire, bare copper strand
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- Tinned-copper braiding
- PVC outer sheath, grey (RAL 7001)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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

Torsion movement in WTG
TW-0 & TW-1, refer to Appendix T0

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
VDE: U_0/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

Alternating bending cycles
2 mio. cycles

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;

Similar products

- ÖLFLEX® CLASSIC FD 810 CY
  refer to page 120

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CHAIN 809 CY				
1026751	2 X 0.5	5.8	36	45
1026752	3 G 0.5	6.1	43	59
1026753	4 G 0.5	6.6	49	83
1026754	5 G 0.5	7.1	57	96
1026755	7 G 0.5	8.5	69	136
1026756	12 G 0.5	10	104	200
1026757	18 G 0.5	11.8	141	275
1026758	25 G 0.5	14.1	211	350
1026759	2 X 0.75	6.2	43	56
1026760	3 G 0.75	6.6	52	70
1026761	4 G 0.75	7.1	61	95
1026762	5 G 0.75	7.7	72	130
1026763	7 G 0.75	9.1	89	168
1026764	12 G 0.75	10.9	138	232
1026765	18 G 0.75	13	211	315
1026766	25 G 0.75	15.6	280	435
1026767	2 X 1.0	6.5	51	84
1026768	3 G 1.0	6.9	62	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	130
1026770	5 G 1.0	8.3	88	156
1026771	7 G 1.0	9.8	112	192
1026772	12 G 1.0	11.7	185	285
1026773	18 G 1.0	14	268	395
1026774	25 G 1.0	16.7	354	486
1026775	2 X 1.5	7.1	65	97
1026776	3 G 1.5	7.5	82	125
1026777	4 G 1.5	8.4	76.6	165
1026778	5 G 1.5	9.1	119	193
1026779	7 G 1.5	10.9	154	245
1026780	12 G 1.5	13.3	268	365
1026781	18 G 1.5	15.7	373	553
1026782	25 G 1.5	18.7	530	734
1026783	3 G 2.5	9	118	188
1026784	4 G 2.5	10.1	147	236
1026785	7 G 2.5	13.5	253	340
1026788	4 G 4	11.9	248	305

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 100 m; Drum (500; 1000) m
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® FD 891

Highly flexible control cable with PVC core insulation and PVC sheath - certified for North America

Info

- Core Line for ordinary duty in power chain applications
- AWM certification for USA and Canada

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Ideal for export-oriented machinery and equipment manufacturers
- Under consideration of the temperature range also suitable for flexible outdoor use

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
- Machine tools
- Plant engineering

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- Oil-resistant
- Low-adhesive surface

Norm references / Approvals

- UL AWM Style 21098
- CSA AWM IA/B; IIA/B FT 1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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: U_0/U 300/500 V
UL/CSA: 600 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® FD 891				
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	36	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	415
1026127	3 G 1.0	7.1	28.8	65
1026129	4 G 1.0	7.8	39	82
1026130	5 G 1.0	8.8	48	105
1026128	7 G 1.0	10.5	67.2	149
1026131	12 G 1.0	12.5	116	225
1026132	18 G 1.0	15	173	331
1026133	25 G 1.0	17.9	240	484
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	147

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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	670
1026334	34 G 1.5	23.6	489.6	897
1026403	3 G 2.5	8.8	72	129
1026404	4 G 2.5	9.8	96	167
1026405	5 G 2.5	11	120	212
1026407	7 G 2.5	13.4	168	304
1026412	12 G 2.5	15.8	288	452
1026504	4 G 4	11.8	153.6	263
1026505	5 G 4	13.2	192	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	588
1026624	4 G 16	24.1	614.4	1031
1026634	4 G 25	27.9	960	1530
1026644	4 G 35	31.1	1344	1959

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD 891 CY

Highly flexible, screened control cable with PVC insulation and PVC inner and outer sheath - certified

Info

- Core Line for ordinary duty in power chain applications
- AWM certification for USA and Canada
- EMC compliant copper screening

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Ideal for export-oriented machinery and equipment manufacturers
- Under consideration of the temperature range also suitable for flexible outdoor use
- Copper screening complies with EMC requirements and protects against electromagnetic interference

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
- Machine tools
- Plant engineering

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- Oil-resistant
- Low-adhesive surface
- EMC-compliant

Norm references / Approvals

- UL AWM Style 21098
- CSA AWM IA/B; IIA/B FT 1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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, black (RAL 9005)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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: U_0/U 300/500 V
UL/CSA: 600 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® FD 891 CY				
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	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
1027292	3 G 1.0	8.7	56	124
1027301	4 G 1.0	9.8	70.2	155
1027293	5 G 1.0	10.6	84	182
1027294	7 G 1.0	12.3	108	237
1027295	12 G 1.0	14.7	178	352
1027302	18 G 1.0	17.3	255	497

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1027296	25 G 1.0	20.5	352	702
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	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	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	1180.4	1879
1027644	4 G 35	34.3	1593.7	2360

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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-M BRUSH refer to page 733
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 808 P

Highly flexible control cable with PVC core insulation and abrasion and oil resistant PUR sheath

Info

- Basic Line for light & ordinary duty in power chain applications
- Good oil resistance

Benefits

- Good combination of quality and price
- Compact design
- 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

Application range

- 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
- Assembly lines, production lines, in all kinds of machines
- In dry, damp or wet interiors

Product features

- Designed for 2 million alternating bending cycles and travel distances up to 10 meter
- High oil-resistance
- Abrasion and notch-resistant
- Low-adhesive surface

Norm references / Approvals

- Based on EN 50525-2-21
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
Core/core: 4000 V

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

Alternating bending cycles
2 mio. cycles

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)
ÖLFLEX® CHAIN 808 P				
1027700	2 X 0.5	5.2	10	40
1027701	3 G 0.5	5.5	15	48
1027702	4 G 0.5	6	20	58
1027703	5 G 0.5	6.5	24	67
1027704	7 G 0.5	7.7	34	88
1027705	12 G 0.5	9.2	58	136
1027706	18 G 0.5	11	87	195
1027707	25 G 0.5	13.3	120	274
1027708	2 X 0.75	5.6	15	49
1027709	3 G 0.75	6	22	60
1027710	4 G 0.75	6.5	29	73
1027711	5 G 0.75	7.1	37	86
1027712	7 G 0.75	8.5	51	117
1027713	12 G 0.75	10.3	87	181
1027714	18 G 0.75	12.2	130	259
1027715	25 G 0.75	14.8	181	363
1027716	2 X 1.0	5.9	19	58
1027717	3 G 1.0	6.3	29	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	88
1027719	5 G 1.0	7.5	48	104
1027720	7 G 1.0	9	67	142
1027721	12 G 1.0	10.9	115	221
1027722	18 G 1.0	13.2	173	324
1027723	25 G 1.0	15.7	240	445
1027724	2 X 1.5	6.5	29	74
1027725	3 G 1.5	6.9	43.2	93
1027726	4 G 1.5	7.6	58	114
1027727	5 G 1.5	8.5	72	139
1027728	7 G 1.5	10.3	101	189
1027729	12 G 1.5	12.3	173	295
1027730	18 G 1.5	14.9	259	429
1027731	25 G 1.5	17.9	360	597
1027732	3 G 2.5	8.4	72	145
1027733	4 G 2.5	9.3	96	179
1027734	7 G 2.5	12.7	168	218
1027737	4 G 4	11.1	160	266

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products
- ÖLFLEX® CLASSIC FD 810 P refer to page 131

Accessories
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 808 CP

Highly flexible, screened control cable with PVC core insulation and abrasion and oil resistant PUR sheath

Info

- Basic Line for light & ordinary duty in power chain applications
- Good oil resistance
- EMC compliant copper screening

Benefits

- Good combination of quality and price
- Compact design
- Thin and light, without inner sheath
- 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

- 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

- Designed for 2 million alternating bending cycles and travel distances up to 10 meter
- High oil-resistance
- Abrasion and notch-resistant
- Low-adhesive surface

Norm references / Approvals

- Based on EN 50525-2-21
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: PVC
- Cores twisted in layers
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, grey (RAL 7001)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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

Alternating bending cycles
2 mio. cycles

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)
ÖLFLEX® CHAIN 808 CP				
1027751	2 X 0.5	5.8	36	45
1027752	3 G 0.5	6.1	43	59
1027753	4 G 0.5	6.6	49	83
1027754	5 G 0.5	7.1	57	96
1027755	7 G 0.5	8.5	69	136
1027756	12 G 0.5	10	104	200
1027757	18 G 0.5	11.8	141	275
1027758	25 G 0.5	14.1	211	350
1027759	2 X 0.75	6.2	43	56
1027760	3 G 0.75	6.6	52	70
1027761	4 G 0.75	7.1	61	95
1027762	5 G 0.75	7.7	72	130
1027763	7 G 0.75	9.1	89	168
1027764	12 G 0.75	10.9	138	232
1027765	18 G 0.75	13	211	315
1027766	25 G 0.75	15.6	280	435
1027767	2 X 1.0	6.5	51	84
1027768	3 G 1.0	6.9	62	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	130
1027770	5 G 1.0	8.3	88	156
1027771	7 G 1.0	9.8	112	192
1027772	12 G 1.0	11.7	185	285
1027773	18 G 1.0	14	268	395
1027774	25 G 1.0	16.7	354	656
1027775	2 X 1.5	7.1	65	97
1027776	3 G 1.5	7.5	82	125
1027777	4 G 1.5	8.4	100	165
1027778	5 G 1.5	9.1	119	193
1027779	7 G 1.5	10.9	154	245
1027780	12 G 1.5	13.3	268	365
1027781	18 G 1.5	15.7	373	553
1027782	25 G 1.5	18.7	530	734
1027783	3 G 2.5	9	118	188
1027784	4 G 2.5	10.1	147	236
1027785	7 G 2.5	13.5	253	340
1027788	4 G 4	11.9	248	305

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.

Similar products

- ÖLFLEX® CLASSIC FD 810 CP refer to page 132

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CLASSIC FD 810 P

Highly flexible control cable with PVC core insulation and abrasion and oil resistant PUR sheath

Info

- Core Line for ordinary duty in power chain applications
- Good oil resistance

Benefits

- Well-proven and reliable
- Various applications
- 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

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Power circuits for electrical equipments used in automation engineering
- Suitable for use in measuring, control and regulating circuits
- In dry, damp or wet interiors with normal mechanical stress conditions

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332.1.2
- High oil-resistance
- Abrasion and notch-resistant
- Low-adhesive surface

Norm references / Approvals

- Core based on VDE 0245/0285
- Outer sheath based on VDE 0245/0285
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® CLASSIC FD 810 P				
0026300	2 X 0.5	5.3	10	36
0026301	3 G 0.5	5.7	15	44
0026302	4 G 0.5	6.3	19	53
0026303	5 G 0.5	6.8	24	62
0026304	7 G 0.5	8	34	82
0026305	12 G 0.5	9.5	58	129
0026306	18 G 0.5	11.4	86.4	185
0026319	2 X 0.75	5.7	15	44
0026320	3 G 0.75	6.2	22	55
0026321	4 G 0.75	6.8	29	67
0026322	5 G 0.75	7.4	37	80
0026323	7 G 0.75	8.9	51	109
0026324	12 G 0.75	10.6	87	172
0026326	18 G 0.75	12.7	130	247
0026327	25 G 0.75	15.2	181	346
0026330	2 X 1.0	6.1	20	52
0026331	3 G 1.0	6.6	29	66
0026332	4 G 1.0	7.3	39	82
0026333	5 G 1.0	8	48	97
0026334	7 G 1.0	9.6	67	117
0026335	12 G 1.0	11.4	115	211
0026338	18 G 1.0	13.9	173	310
0026339	25 G 1.0	16.4	240	426
0026341	34 G 1.0	18.9	326.4	571
0026342	41 G 1.0	20.6	394	684
0026343	50 G 1.0	22.3	480	822
0026344	65 G 1.0	25.4	624	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	68
0026350	3 G 1.5	7.4	43.2	86
0026351	4 G 1.5	8.1	58	106
0026352	5 G 1.5	9.1	72	131
0026353	7 G 1.5	10.9	101	178
0026354	12 G 1.5	12.9	173	281
0026355	16 G 1.5	14.6	230	365
0026356	18 G 1.5	15.6	259	411
0026357	25 G 1.5	18.6	360	571
0026359	34 G 1.5	21.1	489.6	753
0026361	42 G 1.5	23	629	919
0026362	50 G 1.5	25	720	1093
0026370	3 G 2.5	9	72	135
0026371	4 G 2.5	10	96	168
0026372	5 G 2.5	11.2	120	206
0026373	7 G 2.5	13.6	168	286
0026374	12 G 2.5	16	288	453
0026375	14 G 2.5	17.2	336	525
0026381	4 G 4	11.7	160	252
0026382	5 G 4	13.1	200	309
0029200	1 G 6	6.4	60	84
0026383	4 G 6	13.9	230	377
0029210	1 G 10	7.7	100	141
0026385	4 G 10	17.6	384	614
0026386	5 G 10	19.6	480	751
0029220	1 G 16	9.2	160	198
0026387	4 G 16	21	615	851

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 855 P refer to page 135

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CLASSIC FD 810 CP

Highly flexible, screened control cable with PVC insulation, inner sheath and abrasion and oil resistant PUR jacket

Info

- Core Line for ordinary duty in power chain applications
- Good oil resistance
- EMC compliant copper screening

Benefits

- Well-proven and reliable
- Various applications
- 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
- Additional robustness thanks to inner sheath
- Copper braiding screens the cable against electromagnetic interference

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Power circuits for electrical equipments used in automation engineering
- Suitable for use in measuring, control and regulating circuits
- In dry, damp or wet interiors with normal mechanical stress conditions

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332.1.2
- High oil-resistance
- Abrasion and notch-resistant
- EMC-compliant
- Low-adhesive surface

Norm references / Approvals

- Core based on VDE 0245/0285
- Outer sheath based on VDE 0245/0285
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

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)
ÖLFLEX® CLASSIC FD 810 CP				
0026400	2 X 0.5	6.9	33	70
0026401	3 G 0.5	7.3	39	80
0026402	4 G 0.5	7.9	46	94
0026403	5 G 0.5	8.4	54	106
0026404	7 G 0.5	9.8	70	138
0026405	12 G 0.5	11.3	100	194
0026419	2 X 0.75	7.3	39	81
0026420	3 G 0.75	7.8	48	95
0026421	4 G 0.75	8.4	59	111
0026422	5 G 0.75	9	69	128
0026423	7 G 0.75	10.7	90	171
0026424	12 G 0.75	12.4	129	244
0026425	16 G 0.75	14.2	186	328
0026426	18 G 0.75	14.9	205	356
0026427	25 G 0.75	17.4	271	479
0026430	2 X 1.0	7.7	46	93
0026431	3 G 1.0	8.2	57	109
0026432	4 G 1.0	8.9	70	129
0026433	5 G 1.0	9.8	81	154
0026434	7 G 1.0	11.4	110	200
0026435	12 G 1.0	13.4	182	304

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026438	18 G 1.0	16.1	254	429
0026439	25 G 1.0	18.8	365	593
0026449	2 X 1.5	8.4	58	112
0026450	3 G 1.5	9	75	133
0026451	4 G 1.5	9.9	91	163
0026452	5 G 1.5	10.9	112	193
0026453	7 G 1.5	12.7	145	252
0026454	12 G 1.5	15.1	247	391
0026456	18 G 1.5	17.8	348	542
0026457	25 G 1.5	21.2	498	767
0026470	3 G 2.5	10.8	119	199
0026471	4 G 2.5	11.8	161	238
0026472	5 G 2.5	13.2	194	297
0026473	7 G 2.5	15.8	262	403
0026474	12 G 2.5	18.2	410	589
0026475	14 G 2.5	19.8	490	702
0026481	4 G 4	13.7	238	349
0026483	4 G 6	16.1	318	499
0026484	5 G 6	17.7	410	596
0026485	4 G 10	20.2	521	842
0026487	4 G 16	23.6	780	1173

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 855 CP refer to page 136

Accessories

- SKINTOP® BRUSH ADD-ON refer to page 734
- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® ROBUST FD

Highly flexible, all-weather control cable with TPE sheath - resistant to a wide range of chemical media

Info

- Extended Line for heavy duty in power chain applications
- Good chemical resistance

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for 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
- Low particle emission at moved chain application

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
- For indoor and outdoor use

Product features

- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Highly resistant to oil and chemicals
- Ozone, UV and weather-resistant according to EN 50396 and HD 605 S2
- Hydrolysis-resistant to warm and hot water
- Good chemical resistance to ester-based hydraulic fluids
- Flexible down to -40°C

Norm references / Approvals

- Based on VDE 0250 / 0285
- Clean room classification for individual items on request
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black cores with printed white numbers (VDE 0293-1)

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
U_0/U: 300/500 V

Test voltage
4000 V

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

Alternating bending cycles
10 mio. cycles

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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBUST FD				
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	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	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	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0026522	4 G 1.5	9.9	57.6	118
0026523	5 G 1.5	11	72	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	695
0026531	4 G 2.5	11.8	96	181
0026532	5 G 2.5	12.9	120	228
0026533	7 G 2.5	15.7	168	329
0026534	12 G 2.5	18.7	288	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	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® FD 855 P refer to page 135

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® ROBUST FD C

Highly flexible, screened all-weather control cable with TPE sheath - resistant to a wide range of chemical media

Info

- Extended Line for heavy duty in power chain applications
- Good chemical resistance

Benefits

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for 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
- Assembly lines, production lines, in all kinds of machines
- For indoor and outdoor use

Product features

- Ozone, UV and weather-resistant according to EN 50396 and HD 605 S2
- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Highly resistant to oil and chemicals
- Hydrolysis-resistant to warm and hot water
- Good chemical resistance to ester-based hydraulic fluids
- Flexible down to -40 °C

Norm references / Approvals

- Based on VDE 0250 / 0285
- Certified resistance to disinfection and cleaning solutions used in food and beverage industry
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black cores with printed white numbers (VDE 0293-1)

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)
Fixed installation: 4 x Outer diameter

Nominal voltage
U_0/U: 300/500 V

Test voltage
4000 V

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

Alternating bending cycles
10 mio. cycles

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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBUST FD C				
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	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® PETRO FD 865 CP refer to page 137

Accessories

- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® CHAIN cable protection and guiding systems

NEW

ÖLFLEX® FD 855 P

Halogen-free, highly flexible control cable with abrasion and oil resistant PUR sheath - certified

Info

- Extended Line for heavy duty in power chain applications
- Small bending radii - long travel lenghts
- UL/cUL certified for North America

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Low particle emission at moved chain application
- 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

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines
- For use in assembling & pick-and-place machinery
- For indoor and outdoor use

Product features

- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Halogen-free and flame-retardant (IEC 60332-1-2)
- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- Flexible down to -40°C
- Abrasion and notch-resistant
- Low-adhesive surface

Norm references / Approvals

- Based on VDE 0250 / 0285
- USA: UL AWM Style 21576
  Canada: cUL AWM Style I/II A/B FT2
- UL File No. E63634
- Clean room classification for individual items on request
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 U_0/U: 300/500 V
UL: 1000 V

Test voltage
3000 V

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

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing: -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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FD 855 P				
0027530	2 X 0.5	5.1	10	34
0027531	3 G 0.5	5.5	14	40
0027532	5 G 0.5	6.6	24	55
0027533	6 G 0.5	7.1	29	63
0027534	7 G 0.5	7.7	34	76
0027535	12 G 0.5	9.1	58	114
0027536	18 G 0.5	10.9	86	165
0027537	20 G 0.5	11.5	96	180
0027538	25 G 0.5	13.4	120	219
0027540	30 G 0.5	13.6	144	251
0027541	36 G 0.5	14.7	173	290
0027545	2 X 0.75	5.6	14	42
0027546	3 G 0.75	6	22	50
0027547	4 G 0.75	6.7	29	60
0027548	5 G 0.75	7.3	36	71
0027549	7 G 0.75	8.8	50	99
0027550	12 G 0.75	10.3	86	158
0027551	18 G 0.75	12.4	130	219
0027552	20 G 0.75	13.3	144	240
0027553	25 G 0.75	15.5	180	309
0027555	36 G 0.75	16.9	259	411
0027560	2 X 1.0	6	19	50
0027561	3 G 1.0	6.5	29	61
0027562	4 G 1.0	7.2	38	70
0027563	5 G 1.0	7.8	48	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	122
0027565	12 G 1.0	11.2	115	196
0027566	18 G 1.0	13.7	173	274
0027567	20 G 1.0	14.4	192	300
0027568	25 G 1.0	16.8	240	385
0027570	30 G 1.0	17	288	444
0027571	36 G 1.0	18.6	346	516
0027575	2 X 1.5	6.7	29	68
0027576	3 G 1.5	7.3	43	83
0027586	4 G 1.5	8	58	100
0027577	5 G 1.5	9	72	128
0027578	7 G 1.5	10.7	101	177
0027579	12 G 1.5	12.7	173	275
0027580	18 G 1.5	15.2	259	405
0027582	25 G 1.5	18.8	360	565
0027584	30 G 1.5	18.8	432	652
0027585	36 G 1.5	20.6	518	759
0027587	41 G 1.5	22.4	614	978
0027370	3 G 2.5	8.9	72	121
0027371	4 G 2.5	9.9	96	163
0027372	5 G 2.5	11	120	196
0027373	7 G 2.5	13.4	168	266
0027374	12 G 2.5	15.8	288	446
0027375	18 G 2.5	18.9	432	665
0027376	25 G 2.5	23.5	600	929

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 896 P refer to page 139

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® FD 855 CP

Halogen-free, highly flexible and screened control cable with abrasion and oil resistant PUR sheath - certified

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- 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
- Multi-standard certification reduces part varieties and saves costs
- Copper screening complies with EMC requirements and protects against electromagnetic interference

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- For use in assembling & pick-and-place machinery
- Assembly lines, production lines, in all kinds of machines
- For indoor and outdoor use

Product features

- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Halogen-free and flame-retardant (IEC 60332-1-2)
- Resistant to oil and drilling fluids according to IEC 61892-4, Appendix D
- High oil-resistance
- Flexible down to -40°C
- Low-adhesive surface
- EMC-compliant

Norm references / Approvals

- Based on VDE 0250 / 0285
- USA: UL AWM Style 21576 with add. VW-1 Canada: cUL AWM Style I/II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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)

Info

- Extended Line for heavy duty in power chain applications
- Small bending radii - long travel lenghts
- UL/cUL certified for North America

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 U_0/U: 300/500 V
UL: 1000 V

Test voltage
3000 V

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

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing: -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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FD 855 CP				
0027605	2 X 0.5	6.7	32	67
0027606	3 G 0.5	7.1	40	79
0027607	5 G 0.5	8.2	53	107
0027608	6 G 0.5	8.7	59	121
0027609	7 G 0.5	9.5	67	132
0027610	12 G 0.5	10.9	97	190
0027611	18 G 0.5	12.9	131	245
0027612	20 G 0.5	13.5	156	281
0027613	25 G 0.5	15.6	190	367
0027615	30 G 0.5	15.8	222	408
0027616	36 G 0.5	16.9	251	459
0027620	2 X 0.75	7.2	40	79
0027621	3 G 0.75	7.6	47	96
0027622	4 G 0.75	8.3	58	112
0027623	5 G 0.75	8.9	65	126
0027624	7 G 0.75	10.6	85	165
0027625	12 G 0.75	12.1	127	231
0027626	18 G 0.75	14.6	198	330
0027628	25 G 0.75	17.7	259	459
0027630	36 G 0.75	19.5	348	605
0027635	2 X 1.0	7.6	45	93
0027636	3 G 1.0	8.1	55	109
0027637	4 G 1.0	8.8	68	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	147
0027639	7 G 1.0	11.3	106	196
0027640	12 G 1.0	13.2	175	292
0027641	18 G 1.0	15.9	242	418
0027643	25 G 1.0	19.5	329	575
0027645	30 G 1.0	19.6	377	635
0027646	36 G 1.0	21.2	467	758
0027649	2 X 1.5	8.3	58	115
0027650	3 G 1.5	8.9	76	139
0027661	4 G 1.5	9.8	91	156
0027651	5 G 1.5	10.8	111	198
0027652	7 G 1.5	12.5	145	254
0027653	12 G 1.5	14.9	242	416
0027654	18 G 1.5	17.4	346	564
0027656	25 G 1.5	21.4	486	811
0027659	36 G 1.5	23.4	655	1066
0027380	3 G 2.5	10.7	110	194
0027381	4 G 2.5	11.7	136	234
0027382	5 G 2.5	12.8	180	293
0027383	7 G 2.5	15.6	246	418
0027384	12 G 2.5	18	377	629
0027385	18 G 2.5	21.5	569	912
0027386	25 G 2.5	26.5	765	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® PETRO FD 865 CP refer to page 137

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® PETRO FD 865 CP

Halogen-free, highly flexible and screened control cable with abrasion and MUD-resistant PUR sheath - certified

Info

- Extended Line for heavy duty in power chain applications
- Resistant to oil and drilling fluids acc. to NEK TS 606:2009 (Oil & Mud)
- EMC compliant copper screening

Benefits

- Suitable for contact with oil- and ester-based drilling muds as well as calcium bromide solutions
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Suitable for long horizontal drag chain travel distances
- Additional robustness thanks to inner sheath
- Wide temperature range for applications in harsh climatic environments
- Copper braiding screens the cable against electromagnetic interference

Application range

- Permanently moved power chains or machine parts in harsh environment
- Onshore and offshore applications
- In wet areas within machinery and production or assembly lines
- For indoor and outdoor use

Product features

- Designed for 10 million alternating bending cycles and horizontal travel distances up to 100 meter
- Halogen-free and flame-retardant (IEC 60332-1-2)
- Good weather, ozone, UV and oil resistance
- Good notch and abrasion resistance
- Flexible at low temperatures
- EMC-compliant

Norm references / Approvals

- DNV Det Norske Veritas certified
- 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 assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/U: 300/500 V

Test voltage
3000 V

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

Alternating bending cycles
10 mio. cycles

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)
ÖLFLEX® PETRO FD 865 CP				
0023300	2 X 0.5	6.7	32	67
0023301	3 G 0.5	7.1	40	79
0023302	4 G 0.5	7.6	47	84
0023303	5 G 0.5	8.2	53	107
0023304	7 G 0.5	9.5	67	132
0023305	12 G 0.5	10.9	97	190
0023306	18 G 0.5	12.9	131	245
0023307	20 G 0.5	13.5	156	281
0023308	25 G 0.5	15.6	190	367
0023309	30 G 0.5	15.8	222	408
0023310	36 G 0.5	16.9	251	459
0023311	2 X 0.75	7.2	40	79
0023312	3 G 0.75	7.6	47	96
0023313	4 G 0.75	8.3	58	112
0023314	5 G 0.75	8.9	65	126
0023315	7 G 0.75	10.6	85	165
0023316	12 G 0.75	12.1	127	231
0023317	18 G 0.75	14.6	198	330
0023318	20 G 0.75	15.5	213	354
0023319	25 G 0.75	17.7	259	459
0023320	30 G 0.75	17.7	296	480
0023321	36 G 0.75	19.5	348	605
0023322	2 X 1.0	7.6	45	93
0023323	3 G 1.0	8.1	55	109
0023324	4 G 1.0	8.8	68	126
0023325	5 G 1.0	9.6	81	147
0023326	7 G 1.0	11.3	106	196
0023327	12 G 1.0	13.2	175	292
0023328	18 G 1.0	15.9	242	418

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0023329	20 G 1.0	16.6	269	427
0023330	25 G 1.0	19.2	329	575
0023331	30 G 1.0	19.6	377	635
0023332	36 G 1.0	21.2	467	758
0023333	2 X 1.5	8.3	58	115
0023334	3 G 1.5	8.9	76	139
0023335	4 G 1.5	9.8	91	156
0023336	5 G 1.5	10.8	111	198
0023337	7 G 1.5	12.5	145	254
0023338	12 G 1.5	14.9	242	416
0023339	18 G 1.5	17.4	346	564
0023340	20 G 1.5	18.3	377	562
0023341	25 G 1.5	21.4	486	811
0023342	30 G 1.5	21.4	821	821
0023343	36 G 1.5	23.4	655	1066
0023344	2 X 2.5	9.8	73	129
0023345	3 G 2.5	10.7	110	194
0023346	4 G 2.5	11.7	136	234
0023347	5 G 2.5	12.8	180	293
0023348	7 G 2.5	15.6	246	418
0023349	12 G 2.5	18	377	629
0023350	18 G 2.5	21.5	569	912
0023351	20 G 2.5	22.7	582	850
0023352	25 G 2.5	26.5	765	1266
0023353	4 G 4	13.9	205	311
0023354	5 G 4	15.4	250	381
0023355	4 G 6	16.2	289	423
0023356	5 G 6	17.8	354	512
0023357	4 G 10	20.4	475	672
0023358	5 G 10	22.3	582	814

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® FD 891 P

Highly flexible control cable with PVC core insulation and abrasion and oil resistant PUR sheath - certified

Info

- Core Line for ordinary duty in power chain applications
- Good oil resistance
- AWM certification for USA and Canada

Benefits

- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Ideal for export-oriented machinery and equipment manufacturers

Application range

- 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
- Plant engineering

Product features

- Designed for 5 million alternating bending cycles and travel distances up to 10 meter
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- High oil-resistance
- Abrasion and notch-resistant
- Low-adhesive surface

Norm references / Approvals

- UL rec. AWM Style 20234
- CRU AWM II A/B FT 1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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: U_0/U 300/500 V
UL/CSA: 600 V

Test voltage
4000 V

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

Alternating bending cycles
5 mio. cycles

Temperature range
Flexing: -5°C to +80°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® FD 891 P				
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	28.8	82
1028105	5 G 0.75	8.7	36	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	404
1028134	34 G 0.75	18.9	244.8	541
1028150	50 G 0.75	22.5	360	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	155
1028307	7 G 1.5	11.9	100.8	221
1028312	12 G 1.5	13.9	172.8	318

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1028318	18 G 1.5	16.9	259.2	484
1028325	25 G 1.5	20.1	360	671
1028334	34 G 1.5	23.1	489.6	910
1028952	2 X 2.5	8.9	48	102
1028403	3 G 2.5	9.3	72	134
1028404	4 G 2.5	10.3	96	173
1028405	5 G 2.5	11.3	120	217
1028407	7 G 2.5	13.4	168	312
1028412	12 G 2.5	15.8	288	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	605
1028624	4 G 16	23.4	614.4	973
1028634	4 G 25	27.6	960	1437

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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® FD 855 P refer to page 135

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® CHAIN 896 P

Highly flexible, halogen-free power cable with low capacitive insulation and oil resistant PUR sheath - certified

Info

- Extended Line for heavy duty in power chain applications
- Good oil resistance
- Rated voltage 0,6/1 kV

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Longer cable installation lengths thanks to low mutual capacitance cable design
- Wide temperature range for applications in harsh climatic environments

Application range

- In power chains or moving machine parts
- Applications in automation engineering
- Power circuits in industrial machines
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines
- For indoor and outdoor use

Product features

- Dynamic power chain performance:
  Acceleration up to 50 m/s².
  Travel speeds up to 5 m/s.
  Travel distances up to 100 m.
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Halogen-free materials
- High oil-resistance
- Low-capacitance design
- Flexible down to -40°C

Norm references / Approvals

- VDE - reg - no. 8661
  UL AWM Style 20234
  cULus AWM I/II A/B, 1000V 80° FT1
  CSA AWM I/II A, 1000V 80° FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: polypropylene (PP)
- Non-woven wrapping
- PUR outer sheath, black (RAL 9005)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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 (≤16mm²)
10 x outer diameter (>16mm²)
Fixed installation: 4 x outer diameter

Nominal voltage
IEC U_0/U: 600/1000 V
UL & CSA: 1000 V

Test voltage
4000 V

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

Alternating bending cycles
10 mio. cycles

Temperature range
Flexing:
-40°C to +90°C (UL/CSA: +80°C)
Fixed installation:
-50°C to +90°C (UL/CSA: +80°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CHAIN 896 P				
1023229	4 G 1.5	9.6	58	120
1023230	5 G 1.5	10	72	143
1023238	4 G 2.5	11	96	174
1023239	5 G 2.5	12	120	210
1023245	4 G 4	12.5	154	242
1023246	5 G 4	13.7	192	316
1023248	4 G 6	14.3	231	335
1023249	5 G 6	15.7	288	439
1023250	4 G 10	17	384	503
1023251	5 G 10	18.9	480	663
1023252	4 G 16	21.2	615	810
1023253	5 G 16	23.8	768	1065
1023254	4 G 25	25.9	960	1254
1023255	5 G 25	29	1200	1582

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 7DSL refer to page 105
- ÖLFLEX® SERVO FD 796 P refer to page 109
- ÖLFLEX® SERVO FD 7DSL refer to page 113

Accessories

- SILVYN® CHAIN cable protection and guiding systems

ÖLFLEX® ROBOT 900 P

TPE-PUR robot cable for flexing and torsion load

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Space-saving installation due to small 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
- Wide temperature range for applications in harsh climatic environments

Application range

- Plant engineering
- Industrial machinery and machine tools
- Automated handling equipment
- Multi-axis articulated robots
- In power chains or moving machine parts

Product features

- Abrasion and notch-resistant
- Flame-retardant
- High oil-resistance
- Flexible at low temperatures
- Low-adhesive surface

Norm references / Approvals

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

Product Make-up

- Fine or extra-fine strands made of bare copper wire
- Core insulation: TPE
- Cores twisted in layers
- Versions with additional center pair: 2 cores twisted to a pair, PTFE foil wrapping, layer of tinned copper wires
- PTFE tape wrapping
- PUR outer sheath, black (RAL 9005)

Info

- Simultaneous bending and torsion
- Torsion angle up to +/- 360 °/m

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

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)

Inductivity
approx. 0.7 mH/km

Conductor stranding
Fine wire or extra-fine wire

Torsion
Torsion load max. ± 360 °/m

Minimum bending radius
Flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
Up to 0,34 mm²: 48 V AC
From 0.5 mm² U_0/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

Similar products

- ÖLFLEX® ROBOT F1 refer to page 142

Accessories

- SILVYN® RILL PA 12 refer to page 863

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBOT 900 P				
0028110	7 X 0.25	6.2	16.8	48
0028116	25 X 0.25	10.2	60	141
0028188	2 X 0.34	5.0	7	27
0028145	18 G 0.5	11.2	86.4	120
0028146	25 G 0.5	13.3	120	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	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	376
0028178	18 G 1.0	13.2	172.8	287
0028186	23 G 1,0 + (2 x 1,0)	17.3	262	470
0028180	25 G 1.0	16.4	240	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	136
0028182	4 G 2.5	10.1	96	171
0028400	3 G 16	21.4	460.8	721
0028187	3 G 25	26.2	720	1178
0028189	3 G 35	28.8	1008	1559

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® ROBOT 900 DP

Screened TPE-PUR robot cable for bending and torsion loads

Info

- Simultaneous bending and torsion
- Torsion angle up to +/- 180 °/m
- Copper screening

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Space-saving installation due to small 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
- Wide temperature range for applications in harsh climatic environments

Application range

- Plant engineering
- Industrial machinery and machine tools
- Automated handling equipment
- Multi-axis articulated robots
- In power chains or moving machine parts

Product features

- Abrasion and notch-resistant
- Flame-retardant
- High oil-resistance
- Flexible at low temperatures
- Low-adhesive surface

Norm references / Approvals

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

Product Make-up

- Fine or extra-fine strands made of bare copper wire
- Core insulation: TPE
- Cores twisted in layers
- PTFE tape wrapping
- Screen wrapping of tinned copper wires
- PUR outer sheath, black (RAL 9005)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

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)

Inductivity
approx. 0.7 mH/km

Conductor stranding
Fine wire or extra-fine wire

Torsion
Torsion load max. ± 180 °/m

Minimum bending radius
Flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
Up to 0,34 mm²: 48 V AC
From 0.5 mm² U_0/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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBOT 900 DP				
0028100	12 x 0,14	6.7	42.5	69
0028105	3 x 2 x 0,14	6.2	17	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	395

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® ROBOT F1 (C) refer to page 143

Accessories

- SILVYN® RILL PA 12 refer to page 863

ÖLFLEX® ROBOT F1

TPE-PUR robot cable for flexing and torsion load, certified

Info

- Simultaneous bending and torsion
- Torsion angle up to +/- 360 °/m
- AWM certification for USA and Canada

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Wide temperature range for applications in harsh climatic environments

Application range

- Multi-axis articulated robots
- Automated handling equipment
- Industrial machinery and machine tools
- In power chains or moving machine parts
- Plant engineering

Product features

- Abrasion and notch-resistant
- Flame-retardant
- High oil-resistance
- Flexible at low temperatures
- Low-adhesive surface

Norm references / Approvals

- UL AWM Style 20940 VW1
  cUL AWM I/II A/B FT 1
- UL File No. E213974
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine strands, 0.14 mm² - 0.5 mm², made from tinned-copper wires, bare above.
- Core insulation: TPE
- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: white cores with black printed numbers

Conductor stranding
Extra-fine wire

Torsion
Torsion load max. ± 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

Accessories

- SILVYN® RILL PA 12 refer to page 863

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBOT F1				
0029590	7 X 0.25	6.7	16.8	62
0029591	12 X 0.25	9.0	30	122
0029592	18 X 0.25	10.6	45	156
0029593	25 X 0.25	12.5	60	205
0029594	2 X 0.34	4.6	7	38
0029595	3 X 0.34	4.8	10	40
0029596	4 X 0.34	5.2	15	48
0029599	12 X 0.34	9.4	40	130
0029600	18 X 0.34	11.2	60	170
0029601	25 X 0.34	13.1	83	220
0029608	18 G 0.5	12.3	84	202
0029609	25 G 0.5	15.2	120	284
0029610	2 X 1.0	6.3	19	60
0029611	3 G 1.0	6.6	28	71
0029612	4 G 1.0	7.2	38	87
0029614	7 G 1.0	9.2	65	141
0029615	12 G 1.0	12.4	110	237
0029616	14 G 1.0	13.2	128	257
0029617	16 G 1,0 + (2 x 1,0)	15.4	190	346
0029618	18 G 1.0	16.1	170	349
0029619	23 G 1 + (2 x 1,0)	18.0	250	461
0029620	25 G 1.0	18.3	240	407
0029621	34 G 1.0	21.1	320	600
0029622	41 G 1.0	23.6	390	753
0029624	4 G 1.5	8.2	57	114
0029625	5 G 1.5	9.1	72	141
0029627	7 G 1.5	10.5	101	187
0029629	12 G 1.5	14.3	170	294
0029630	18 G 1.5	17.5	259	450
0029631	25 G 1.5	22.2	360	661
0029632	3 G 2.5	9.1	72	136
0029641	4 G 6	13.3	220	330

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® ROBOT F1 (C)

Screened TPE-PUR robot cable for bending and torsion loads, certified

Info

- Simultaneous bending and torsion
- Torsion angle up to +/- 180 °/m
- AWM certification for USA and Canada

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Wide temperature range for applications in harsh climatic environments

Application range

- Multi-axis articulated robots
- Automated handling equipment
- Industrial machinery and machine tools
- In power chains or moving machine parts
- Plant engineering

Product features

- Abrasion and notch-resistant
- Flame-retardant
- High oil-resistance
- Resistant to cold temperatures
- Low-adhesive surface

Norm references / Approvals

- UL AWM Style 20940 VW1
  cUL AWM I/II A/B FT 1
- UL File No. E213974
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine strands, 0.14 mm² - 0.5 mm², made from tinned-copper wires, bare above.
- Core insulation: TPE
- Cores (or core pairs) twisted in layers or bundles
- PTFE tape wrapping
- Braiding or wrapping of tinned copper wires
- PUR outer sheath, black (RAL 9005)

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: white cores with black printed numbers

Conductor stranding
Extra-fine wire

Torsion
Torsion load max. ± 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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBOT F1 (C)				
0029653	3 x 2 x 0,25	8.0	38	100
0029654	25 x 0,25	13.8	115	280
0029655	2 x 0,34	5.2	18	54
0029656	3 x 0,34	5.4	20	56
0029657	4 x 0,34	6.6	28	72
0029658	5 x 2 x 0,34	10.2	69	158
0029689	12 G 1,5	15.4	230	380
0029690	18 G 1,5	18.5	340	550
0029664	4 G 1,5	8.8	75.1	120
0029665	4 G 2,5	10.3	116	200
0029691	4 G 1,5 + (2 x 1,0)	11.0	116	213
0029692	4 G 2,5 + (2 x 1,0)	12.0	150	270

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- SILVYN® RILL PA 12 refer to page 863

LiFY

Flexible at cold temperatures, Class 6 single conductor for devices or measurements

Info

- Extremely flexible / Extra-finely stranded

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

Norm references / Approvals

- Based on VDE 0812 and VDE 0250-1

Product Make-up

- Stranded copper wire
- Core insulation: Based on PVC

Technical data

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

Conductor stranding
Extra-finely stranded IEC conductor class 6: 0.07 mm

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

Temperature range
Flexible use: -15 °C to +70 °C

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	PU	black	blue	green/yellow	red
0.75	2.5	7.2	100	4560013S	4560014S	4560017S	4560016S
1	2.9	9.6	100	4560023S	4560024S	4560027S	4560026S
1.5	3.7	14.4	100	4560033S	4560034S	4560037S	4560036S
2.5	4.2	24	50	4560053S	4560054S	4560057S	4560056S
4	5.1	38.4	100	4560063	4560064	4560067	
6	6.0	57.6	50	4560073	4560074	4560077	4560076
10	7.4	96	50	4560083		4560087	4560086

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue 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 1011
- PEW 8.87 crimping pliers refer to page 1016
- KS 15 cable shears

LiFY 1 kV

Flexible at cold temperatures, Class 6 single conductor for devices or measurements

Info

- Extremely flexible / Extra-finely stranded

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

Norm references / Approvals

- Based on VDE 0812 and VDE 0250-1

Product Make-up

- Stranded copper wire
- Core insulation: Based on PVC

Technical data

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

Conductor stranding
Extra-finely stranded IEC conductor class 6: 0.07 mm

Nominal voltage
LiFY measurement cores:
U: 1000 VAC

Temperature range
Flexible use: -15°C to +70°C

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 150/100 kg. Refer to catalogue 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 1011
- PEW 8.87 crimping pliers refer to page 1016
- KS 15 cable shears

ESUY Copper Earthing Cable

Flexible single conductor for grounding and shorting as well as for grounding installation and potential equalisation

Info

- Grounding, Shorting prior to field maintenance
- Mechanically highly flexible

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 IEC 60332-1-2

Product Make-up

- Strands of bare copper wires
- Braiding made of bare copper wires
- Outer sheath: Based on PVC, transparent

Technical data

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

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 (mm²)	Conductor stranding: number of wires x wire diameter (mm)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ESUY Copper Earthing Cable					
4571101	16	4,200 x 0.07	8.8	177	230
4571102	25	3,192 x 0.1	10.4	275	316
4571103	35	4,480 x 0.1	12.4	387	475
4571104	50	6,383 x 0.1	14.6	560	670
4571105	70	8,918 x 0.1	17.0	791	905
4571106	95	12,100 x 0.1	19.8	1069	1220

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue 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 147

Accessories

- KT cable shears refer to page 999

X00V3-D Copper Earthing Cable

Flexible at cold temperatures, <HAR>-type single conductor for earthing and shorting

Info

- Grounding, Shorting prior to field maintenance
- Flexible at low temperatures

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

Norm references / Approvals

- Based on VDE 0283 Part 3 or EN 61138

Product Make-up

- Strands of bare copper wires
- Outer sheath: Based on PVC, transparent

Technical data

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

Conductor stranding
Based on 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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
X00V3-D Copper Earthing Cable				
4571110	16	8.1	153.6	223
4571111	25	9.5	240	330
4571112	35	11.0	336	455
4571113	50	13.2	480	648
4571114	70	15.8	672	913
4571115	95	18.3	912	1234

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue 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 146

Accessories

- KT cable shears refer to page 999

ÖLFLEX® TRUCK 170 FLRYY

Info

- Commercial vehicles
- Hazardous materials transportation

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

Norm references / Approvals

- ISO 4141 and DIN/ISO 6722

Product Make-up

- Strands of bare copper wires
- Core insulation: Based on PVC
- Special PVC-based outer sheath

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
ISO 4141-3

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
Area of application, Class A
Fixed installation: -40°C to +85°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRUCK 170 FLRYY					
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	97
7027065	5 x 1,0 + 1 x 2,5	9.0	1.0 = green/brown/red/blue/violet; 2.5 = white	72	133
7027066	5 x 1,0 + 1 x 2,5	9.0	1.0 = yellow/black/red/blue/violet; 2.5 = white	72	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	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	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	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	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRUCK 470 P FLRYY 11Y

Info

- Commercial vehicles
- Hazardous materials transportation
- Hydrolysis and microbe resistant

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

Norm references / Approvals

- ISO 4141 and DIN/ISO 6722

Product Make-up

- Strands of bare copper wires
- Core insulation: Based on PVC
- Special PVC-based inner sheath
- Outer sheath made of special polyurethane

Technical data

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

Core identification code
ISO 4141-3

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 mm² per conductor	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRUCK 470 P FLRYY 11Y					
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	97
7027085	5 x 1,0 + 1 x 2,5	9.0	1.0 = green/brown/red/blue/violet; 2.5 = white	72	133
7027086	5 x 1,0 + 1 x 2,5	9.0	1.0 = yellow/black/red/blue/violet; 2.5 = white	72	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	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	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	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	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	560

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRUCK 170 TWIN

Info

- Commercial vehicles
- Hazardous materials transportation
- Battery twin cable

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

Norm references / Approvals

- ADR approval TÜ.EGG.091-04

Product Make-up

- Strands of bare copper wires
- Core insulation: Based on PVC
- Special PVC-based outer sheath

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

Minimum bending radius
15 x outer diameter

Nominal voltage
60 V DC

Test voltage
3000 V AC

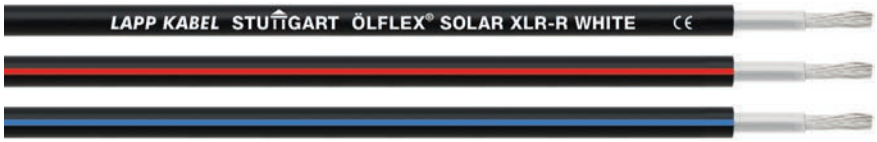
Temperature range
Fixed installation: -40°C to +85°C
Area of application, Class A

Article number	Number of cores and mm² 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
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
7027059	PVC/PVC 2 x 35,0	28.4 x 13.5	672
7027054	PVC/PVC 2 x 50,0	33.0 x 16.0	960
7027052	PVC/PVC 2 x 70,0	39.8 x 18.4	1344

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
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® SOLAR XLR-R

Electron beam cross-linked solar cables with reduced diameters - TÜV type approved



Info

- Optimised cable design - thin, light and robust
- TÜV Type PV1-F (2 PfG 1169/08.2007)

Benefits

- Reduced outer diameters enable space and weight saving installation
- Reduction of flame propagation and of toxic combustion gases in the event of fire
- Robust against mechanical impacts
- Extruded colour stripe serves as reverse polarity protection 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 extension cable between the module strings and the DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- Flexible or building-integrated PV systems

Product features

- Weather/UV-resistant acc. to HD 605/A1 Ozone-resistant according to EN 50396
- Halogen-free and flame-retardant
- Good notch and abrasion resistance
- XLR-R = X-Linked Radiated-Reduced Proven electron beam cross-linked quality
- Version without colour stripe for size up to 300mm² on request

Norm references / Approvals

- PV1-F (TÜV type approved according to 2 PfG 1169/08.2007)

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation made of electron beam cross-linked copolymer
- Colour of core insulation: white
- Outer sheath made of electron beam cross-linked copolymer
- Outer sheath colour: black respectively black with red or blue stripe

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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
In compliance with TÜV 2 PfG 1169/08.2007 table 1

Temperature range
-40°C to +120°C max. conductor temperature based on EN 60216-1
Ambient temperature according to TÜV 2 PfG 1169/08.07: -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	46
0023177	4.0	5.2	38.4	63
0023178	6.0	5.8	57.6	86
0023179	10.0	7	96	132
0023180	16.0	8.3	153.6	197
Core insulation: white / Outer sheath: black with red stripe				
0023360	2.5	4.8	24	46
0023361	4.0	5.2	38.4	63
0023362	6.0	5.8	57.6	86
0023363	10.0	7	96	132
0023364	16.0	8.3	153.6	197
Core insulation: white / Outer sheath: black with blue stripe				
0023370	2.5	4.8	24	46
0023371	4.0	5.2	38.4	63
0023372	6.0	5.8	57.6	86
0023373	10.0	7	96	132
0023374	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil 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 WP refer to page 153

Accessories

- EPIC® SOLAR 4 M refer to page 703
- EPIC® SOLAR 4 F refer to page 703
- UNIVERSAL STRIP stripping tool refer to page 1006
- KS 20 cable shears refer to page 999

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 and of toxic combustion gases in the event of fire
- Extruded colour stripe serves as reverse polarity protection 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 extension cable between the module strings and the DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- Flexible or building-integrated PV systems

Product features

- Weather/UV-resistant acc. to HD 605/A1
- Ozone-resistant according to EN 50396
- Halogen-free and flame-retardant
- Good notch and abrasion resistance
- XLS-R = X-Linked Standard - Reduced Proven electron beam cross-linked quality

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation made of electron beam cross-linked copolymer
- Colour of core insulation: white
- Outer sheath made of electron beam cross-linked copolymer
- Outer sheath colour: black respectively black with red or blue stripe

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLS-R				
0023136	2.5	4.8	24	46
0023137	4.0	5.2	38.4	63
0023138	6.0	5.8	57.6	86
0023104	10.0	7	96	132
0023105	16.0	8.3	153.6	197
Core insulation: white / Outer sheath: black with red stripe				
0023390	2.5	4.8	24	46
0023391	4.0	5.2	38.4	63
0023392	6.0	5.8	57.6	86
0023393	10.0	7	96	132
0023394	16.0	8.3	153.6	197
Core insulation: white / Outer sheath: black with blue stripe				
0023395	2.5	4.8	24	46
0023396	4.0	5.2	38.4	63
0023397	6.0	5.8	57.6	86
0023398	10.0	7	96	132
0023399	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil 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 151

Accessories

- EPIC® SOLAR 4 M refer to page 703
- EPIC® SOLAR 4 F refer to page 703
- UNIVERSAL STRIP stripping tool refer to page 1006
- KS 20 cable shears refer to page 999

NEW

ÖLFLEX® SOLAR XLR WP

Electron beam cross-linked solar cables with optimized performance in water - TÜV type

Info

- Optimised cable design - constant high volume resistance even after long-term period in water
- TÜV Type PV1-F (2 PfG 1169/08.2007)

Benefits

- The alternative for long-term storage in water, e.g. as it can occur in case after flooding or in buried conduits
- Reduction of flame propagation and of toxic combustion gases in the event of fire
- Robust against mechanical impacts
- Extruded colour stripe serves as reverse polarity protection during installation.
- Exact quantity control during installation by meter marking on the cable sheath

Application range

- For underground installation in conduits, in which water, heat and moisture can accumulate
- For the cabling between the solar modules and as extension cable between the module strings and the DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- Suitable for direct burial: see data sheet

Product features

- Weather/UV-resistant acc. to HD 605/A1
- Ozone-resistant according to EN 50396
- Halogen-free and flame-retardant
- Good notch and abrasion resistance
- XLR WP = X-Linked Radiated Water-Proof Proven electron beam cross-linked quality

Norm references / Approvals

- PV1-F (TÜV type approved according to 2 PfG 1169/08.2007)

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation made of electron beam cross-linked copolymer
- Colour of core insulation: white
- Outer sheath made of electron beam cross-linked copolymer
- Outer sheath colour: black respectively black with red or blue stripe

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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
In compliance with TÜV 2 PfG 1169/08.2007 table 1

Temperature range
-40°C to +120°C max. conductor temperature based on EN 60216-1
Ambient temperature according to TÜV 2 PfG 1169/08.07: -40°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLR WP				
Core insulation: white / Outer sheath: black				
1023501	2.5	5.2	24	48
1023502	4.0	5.6	38.4	65
1023503	6.0	6.2	57.6	88
1023504	10.0	7.4	96	135
1023505	16.0	8.7	153.6	207
Core insulation: white / Outer sheath: black with red stripe				
1023521	2.5	5.2	24	48
1023522	4.0	5.6	38.4	65
1023523	6.0	6.2	57.6	88
1023524	10.0	7.4	96	135
1023525	16.0	8.7	153.6	207
Core insulation: white / Outer sheath: black with blue stripe				
1023526	2.5	5.2	24	48
1023527	4.0	5.6	38.4	65
1023528	6.0	6.2	57.6	88
1023529	10.0	7.4	96	135
1023530	16.0	8.7	153.6	207

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil 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 M refer to page 703
- EPIC® SOLAR 4 F refer to page 703
- UNIVERSAL STRIP stripping tool refer to page 1006
- KS 20 cable shears refer to page 999

ÖLFLEX® TORSION FRNC

Cold and oil-resistant cables for flexible applications under torsional load, halogen-free - 0.6/1 kV

Info

- Torsion resistant, Cold flexible and Oil resistant for drip loops
- Halogen-free, Highly flame retardant, Low smoke density

ÖLFLEX® TORSION D FRNC

Screened, cold and oil-resistant cables for flexible applications under torsional load, halogen-free - 0.6/1 kV

Info

- Torsion resistant, Cold flexible and Oil resistant for drip loops
- Halogen-free, Highly flame retardant, Low smoke density
- EMC/Screened

Benefits

- The special design reliably compensates for the permanent torsional drip loop 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
- Resistant to lipper and drops of sea water 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 drip loop, between the rotating nacelle and the stationary windmill tower, to connect the generator to the control units

Product features

- Torsion-resistant up to ±150°/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

Norm references / 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
- Cable type certifications: UL AWM style 21288 by UL acc. UL standard as well as cUL AWM II A/B by UL acc. CSA AWM standard
- 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 60811-404 and UL OIL RES I and UL OIL RES II
- UV-resistant according to ISO 4892-2 and ozone-resistant according to EN 50396

Product Make-up

- Extra-fine wire conductor made of bare copper
- Core insulation: polyolefin compound
- 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

Classification
ÖLFLEX® TORSION FRNC
ETIM 5.0 Class-ID: EC000057
ETIM 5.0 Class-Description:
Low voltage power cable
ÖLFLEX® TORSION D FRNC
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description:
Control cable

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

Conductor stranding
ÖLFLEX® TORSION FRNC
Extra-fine wire acc. to VDE 0295, class 6/ IEC 60228 class 6 (Refer to Appendix T16 for the matching US conductor sizes in AWG standard)
ÖLFLEX® TORSION D FRNC
Extra-fine wire acc. to VDE 0295, class 6/ IEC 60228 class 6

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TORSION FRNC				
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	183
1150275	7 G 1.5	12.6	100.8	253
1150279	12 G 1.5	15.3	172.8	386
1150311	3 G 2.5	10.4	72	181
1150312	4 G 2.5	11.3	96	242
1150313	5 G 2.5	12.4	120	258
1150350	3 G 4	11.9	115.2	254
1150351	4 G 4	13.0	153.6	313
1150357	5 G 6	16.0	288	486
1150362	5 G 10	20.5	480	799
ÖLFLEX® TORSION D FRNC - screened				
1150111	4 x 2 x 0.5	11.9	71	205
1150115	12 x 2 x 0.5	18.3	188	518
1150121	4 x 2 x 0.75	12.7	90	232
1150125	12 x 2 x 0.75	19.8	258	603
1150221	18 G 0.75	15.2	180	402
1150228	50 G 0.75	24.9	470	1079

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Drum
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.

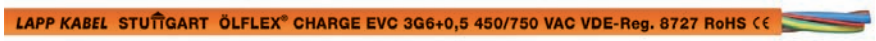
Similar products

ÖLFLEX® TORSION FRNC

- H07RN-F, enhanced version refer to page 92

ÖLFLEX® CHARGE

VDE EVC cable to charge electrically powered vehicles and for spiralization



Info

- VDE EVC type certified
- Halogen-free and flame-retardant
- Spiralizable

Benefits

- Normative compliance of the charging process with IEC 61851-1
- VDE EVC certified according to VDE-AR-E 2283-5/ EVC cable type as third-party approved component involved in charging
- Low toxicity of flue in the event of fire
- Permanent connection as flexible charging cable to charging station or for permanent on-board carriage inside vehicles
- Suitable for spiralization, except for 5G6mm²+1X0.5mm²

Product features

- Flame-retardant acc. IEC 60332-1-2 as well as Halogen-free acc. VDE-AR-E 2283-5/ appendices B+C, EN 50267-2-1, EN 50267-2-2, EN 50525-1/ appendix C, EN 60684-2
- UV-resistant acc. EN ISO 4892-2, 2.4.20, as well as ozone-resistant acc. EN 50396, 8.1.3, for outdoor use
- Cold-flexible as well as water-resistant according to AD6 of HD 516 and VDE-AR-E 2283-5, appendix I
- Resistance to acids and solutions according to EN 60811
- High resistance to usual vehicle chemicals according to VDE-AR-E 2283-5, appendix G

Norm references / Approvals

- <VDE> EVC cable type registration issued by the VDE according to the VDE application rule VDE-AR-E 2283-5

Product Make-up

- Finely stranded, bare copper conductors of IEC conductor class 5 acc. IEC 60228
- Core insulations of power cores made of special, halogen-free, cross-linked elastomer EVI-2 acc. VDE-AR-E 2283-5
- Core insulation control/ pilot core(s): Halogen-free, thermoplastic, special compound EVI-1 acc. VDE-AR-E 2283-5
- Halogen-free, outer sheath made of PUR in compliance with the normative compound EVM-1 acc. VDE-AR-E 2283-5
- Colour of the outer sheath: Orange similar to RAL 2003, further sheath colours on request

Technical data

ETIM 5.0 Class-ID: EC002884
ETIM 5.0 Class-Description:

Core identification code
Power cores: colour-coded according to HD 308/VDE 0293-308
Control/ Pilot core: Red

Conductor stranding
Fine-wired/ Finely stranded according to IEC 60228, conductor class 5
Bare copper

Minimum bending radius
10 x outer diameter

Nominal voltage
U_0/U = 450/750 V AC

Test voltage
At the core: 2.5 kV AC
At the finished cable: 3 kV AC

Protective conductor
Always with protective conductor (PE), hence uppercase “G” as part of the dimension abbreviation

Temperature range
-25°C to +80°C
Maximum permissible conductor temperature: +90 °C

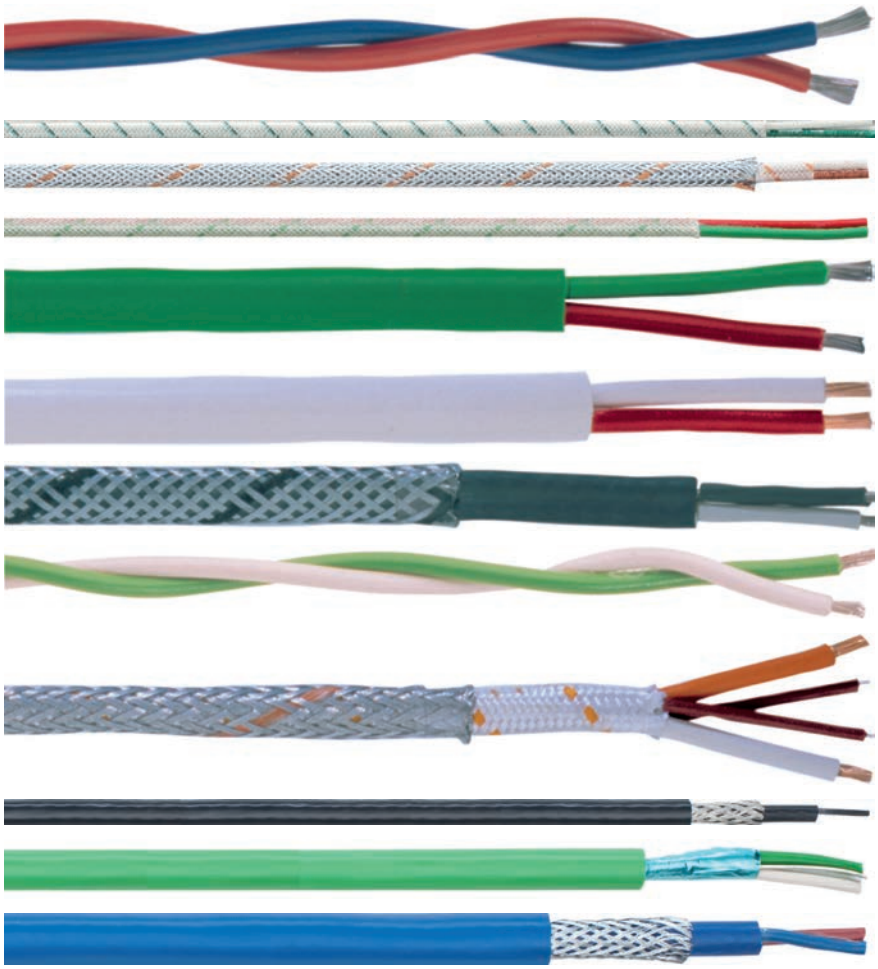
Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CHARGE				
74880550	3G2,5+1X0,5	10.1	76.8	155
74880558	3G6+1X0,5	13.2	178	330

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
74880574	5G2,5+1X0,5	12.8	125	260
74880582	5G6+1X0,5	16	293	460

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

Extension- and compensating cables, paired

PVC, silicone, FEP or glass fibre-insulated



Info

- Available in many different designs
- New: thermocouple cable type K

Technical data

Classification
ETIM 5.0 Class-ID: EC000838
ETIM 5.0 Class-Description:
Thermocouple cable

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 +80°C
Silicone: -25°C to +180°C
Glass fibre: -25°C to +200°C
FEP: -100°C to +205°C
E-Glass: -25°C to +400°C

Norm references / Approvals

- Space-saving and flexible
- For more detailed information, see appendix T8 and data sheets

Application range

- Allows temperature measurement even in places where non-contact temperature measurement is not possible or reasonable
- 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 (K, KX, KCA)**
  K and KX version - conductor alloys are identical to thermocouple alloys
  KCA version: compensating alloys (for KCA: Fe/CuNi), not identical to thermocouple alloys
- **PtRh/Pt (RCB, SCB)**
  Compensating alloys (for RCB, SCB: Cu/CuNi) are not identical to thermocouple alloys

Norm references / 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

Product Make-up

- **Design abbreviations:**
  PVC: Polyvinylchloride
  SIL: Silicone rubber
  GL: Glass fibre
  FEP: Fluorinated ethylene propylene
  EGL: E-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
  - **S**teel 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

Power and control cables

LAPP GROUP

Special applications • Temperature measurement (extension and compensating cables)

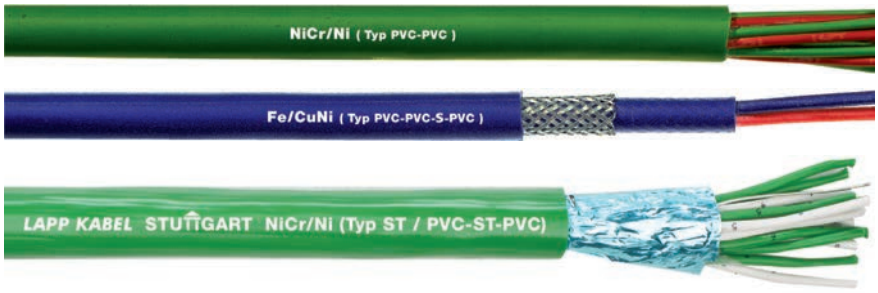
Article number	Reference/article designation	Thermocouple	Product Make-up	Cable design	Number of cores and mm² per conductor	Outer diameter (mm)	Outer dimensions, width x height (mm)	Weight (kg/km)
0.22 mm² extension and compensating cables								
0151051	KE 9-022 L	Fe/CuNi	DIN LX	PVC-PVC	2 x 0.22	4.0		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	IEC 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
1161011	KN FEP-SIL	NiCr/Ni	IEC KCA	FEP-SIL	2 x 0.22	3,8		22
1161007	K FEP-C-FEP	NiCr/Ni	IEC K	FEP-C-FEP	2 x 0.22	3.0		22
Thermocouple cables 0,5 mm								
1161008	K FEP-FEP	NiCr/Ni	IEC K	FEP-FEP ovale	2 x 0.5		2.4 x 1.5	45
1161009	K GL-GL	NiCr/Ni	IEC K	EGL-EGL ovale	2 x 0.5		2.3 x 1.3	45
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
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 ovale	2 x 0.5		6.4 x 4.4	51
0161040	KE 41 L-SIL	Fe/CuNi	IEC JX	SIL-SIL-S ovale	2 x 0.5		6.4 x 4.4	51
0152030	KN 41 L-SIL	NiCr/Ni	DIN KCA	SIL-SIL-S ovale	2 x 0.5		6.4 x 4.4	51
0162030	KN 41 L-SIL	NiCr/Ni	IEC KCA	SIL-SIL-S ovale	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 ovale	2 x 0.75		6.4 x 4.4	58
0161050	KE 42 L-SIL	Fe/CuNi	IEC JX	SIL-SIL-S ovale	2 x 0.75		6.4 x 4.4	58
0152035	KN 42 L-SIL	NiCr/Ni	DIN KCA	SIL-SIL-S ovale	2 x 0.75		6.4 x 4.4	58
0162035	KN 42 L-SIL	NiCr/Ni	IEC KCA	SIL-SIL-S ovale	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 ovale	2 x 1.5		7.2 x 4.4	69
0161017	KE 12 L	Fe/CuNi	IEC JX	PVC-PVC ovale	2 x 1.5		7.2 x 4.4	69
0152017	KN 12 L	NiCr/Ni	DIN KCA	PVC-PVC ovale	2 x 1.5		7.2 x 4.4	69
0162017	KN 12 L	NiCr/Ni	IEC KCA	PVC-PVC ovale	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

Article number	Reference/article designation	Thermocouple	Product Make-up	Cable design	Number of cores and mm² per conductor	Outer diameter (mm)	Outer dimensions, width x height (mm)	Weight (kg/km)
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 ovale	2 x 1.5		8.0 x 5.2	85
0161007	KE 4 L-SIL-S	Fe/CuNi	IEC JX	SIL-SIL-S ovale	2 x 1.5		8.0 x 5.2	85
0152007	KN 4 L-SIL-S	NiCr/Ni	DIN KCA	SIL-SIL-S ovale	2 x 1.5		8.0 x 5.2	85
0162007	KN 4 L-SIL-S	NiCr/Ni	IEC KCA	SIL-SIL-S ovale	2 x 1.5		8.0 x 5.2	85
0153007	KP 4 L-SIL-S	PtRh/Pt	DIN RCB, SCB	SIL-SIL-S ovale	2 x 1.5		8.0 x 5.2	85
0163007	KP 4 L-SIL-S	PtRh/Pt	IEC RCB, SCB	SIL-SIL-S ovale	2 x 1.5		8.0 x 5.2	85
0151019	KE 13 L-SIL	Fe/CuNi	DIN LX	SIL-GL ovale	2 x 1.5		6.0 x 3.3	50
0161019	KE 13 L-SIL	Fe/CuNi	IEC JX	SIL-GL ovale	2 x 1.5		6.0 x 3.3	50
0152019	KN 13 L-SIL	NiCr/Ni	DIN KCA	SIL-GL ovale	2 x 1.5		6.0 x 3.3	50
0162019	KN 13 L-SIL	NiCr/Ni	IEC KCA	SIL-GL ovale	2 x 1.5		6.0 x 3.3	50
0153019	KP 13 L-SIL	PtRh/Pt	DIN RCB, SCB	SIL-GL ovale	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
1161012	KP 11 L-SIL-S	NiCr/Ni	IEC KCA	SIL-GL-S ovale	2 x 1.5		6.8 x 4.1	82
Glass fibre-insulated versions 1.5 mm²								
0151005	KE 3 L	Fe/CuNi	DIN LX	GL-GL ovale	2 x 1.5		5.1 x 2.7	64
0161005	KE 3 L	Fe/CuNi	IEC JX	GL-GL ovale	2 x 1.5		5.1 x 2.7	64
0152005	KN 3 L	NiCr/Ni	DIN KCA	GL-GL ovale	2 x 1.5		5.1 x 2.7	64
0162005	KN 3 L	NiCr/Ni	IEC KCA	GL-GL ovale	2 x 1.5		5.1 x 2.7	64
0153005	KP 3 L	PtRh/Pt	DIN RCB, SCB	GL-GL ovale	2 x 1.5		5.1 x 2.7	64
0163005	KP 3 L	PtRh/Pt	IEC RCB, SCB	GL-GL ovale	2 x 1.5		5.1 x 2.7	64
0151006	KE 4 L-S	Fe/CuNi	DIN LX	GL-GL-S ovale	2 x 1.5		5.9 x 3.7	87
0161006	KE 4 L-S	Fe/CuNi	IEC JX	GL-GL-S ovale	2 x 1.5		5.9 x 3.7	87
0152006	KN 4 L-S	NiCr/Ni	DIN KCA	GL-GL-S ovale	2 x 1.5		5.9 x 3.7	87
0162006	KN 4 L-S	NiCr/Ni	IEC KCA	GL-GL-S ovale	2 x 1.5		5.9 x 3.7	87
0153006	KP 4 L-S	PtRh/Pt	DIN RCB, SCB	GL-GL-S ovale	2 x 1.5		5.9 x 3.7	87
0163006	KP 4 L-S	PtRh/Pt	IEC RCB, SCB	GL-GL-S ovale	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

Product Make-up

- **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 verison 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
  - **S**teel wire braiding
  - **PVC** outer sheath
- **Design, for example PVC-ST-PVC:**
  - **PVC** core insulation
  - **ST**atic 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

Classification
ETIM 5.0 Class-ID: EC000838
ETIM 5.0 Class-Description: Thermocouple cable

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 +80°C
Fixed installation: -40°C to +80°C

Article number	Thermocouple	Product Make-up	Cable design	Number of cores and mm² 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	130
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	130
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	200
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	200
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	238
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	335
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	447
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	447
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	555
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	555
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	240
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

Article number	Thermocouple	Product Make-up	Cable design	Number of cores and mm² per conductor	Outer diameter (mm)	Weight (kg/km)
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	355
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	410
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	550
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	730
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	847
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.

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 not more than 2 weeks without interruption in industrial water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX® 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® LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according IEC 60332-1-2
- Oil-resistant according to EN 60811-404
- Good chemical, thermal and mechanical-resistance
- For connecting mobile equipment in hazardous areas acc. to DIN VDE 0165
- UV-resistant

Norm references / Approvals

- <VDE> NSHTÖU cable type certification acc. VDE 0250-814

Product Make-up

- 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

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

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

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

Minimum bending radius
Flexible use:
Cables with outer diameter < 21,5 mm: 5 x outer diameter
Cables with outer diameter > 21,5 mm: 6,25 x outer diameter

Nominal voltage
U_0/U: 600/1000 V

Test voltage
4000 V

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

Current rating
VDE 0298 Part 4

Temperature range
Flexible use: -25°C to +80°C

Article number	Number of cores and mm² 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	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	1320
0043013	3 G 2.5	13.5	72	250
00430303	4 G 2.5	16.9	96	330
00430143	5 G 2.5	18	120	390
0043015	7 G 2.5	20.6	168	510
0043016	12 G 2.5	27.4	288	970
0043017	18 G 2.5	27.4	432	1100

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0043018	24 G 2.5	31.6	576	1450
0043019	30 G 2.5	36.3	720	1950
00430203	4 G 4	18.4	153.6	440
00430333	5 G 4	19.6	192	520
00430213	4 G 6	19.8	230.4	530
00430343	5 G 6	21.7	288	690
00430223	4 G 10	23.4	384	830
00430003	5 G 10	25.2	480	1000
00430233	4 G 16	25.5	614.4	1170
00430323	5 G 16	27.5	768	1400
00430243	4 G 25	32.6	960	1830
00430253	4 G 35	34.8	1344	2280
00430263	4 G 50	40.6	1920	3220
00430283	4 G 70	44.8	2688	4200
00430293	4 G 95	51.2	3648	5530

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE VS (N)SHTÖU refer to page 163
- ÖLFLEX® CRANE PUR refer to page 164

Accessories

- STAR STRIP stripping tool refer to page 1000
- KT cable shears refer to page 999

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, unreeled, and guided by roller trains
- In dry or damp interiors, outdoors, or not more than 2 weeks without interruption in industrial water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX® 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® LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according IEC 60332-1-2
- Oil-resistant according to EN 60811-404
- Good chemical, thermal and mechanical-resistance
- For connecting mobile equipment in hazardous areas acc. to DIN VDE 0165

Norm references / Approvals

- Based on VDE 0250-814 (NSHTÖU)

Product Make-up

- 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

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

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

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
U_0/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 +80°C

Article number	Number of cores and mm² 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	2000	100.8	430
0044009	12 G 1.5	25.3	2000	172.8	820
0044010	18 G 1.5	25.3	2000	259.2	930
0044011	24 G 1.5	30.1	2000	345.6	1260
0044036	36 G 1.5	34	2000	518.4	1650
0044015	7 G 2.5	21.6	2000	168	630
0044016	12 G 2.5	29.4	2000	288	1150
00440333	5 G 4	19.6	2000	192	510
00440223	4 G 10	23.4	2000	384	830
00440233	4 G 16	25.5	2000	614.4	1170
00440323	5 G 16	27.5	2400	768	1400
00440243	4 G 25	32.6	3000	960	1850
00440253	4 G 35	34.8	4000	1344	2250
00440263	4 G 50	40.6	6000	1920	3200
00440283	4 G 70	44.8	8000	2688	4200
00440293	4 G 95	51.2	11000	3648	5550

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE NSHTÖU refer to page 162
- ÖLFLEX® CRANE PUR refer to page 164

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004
- V 1311-A pressing pliers, hydraulic refer to page 1030
- STAR STRIP stripping tool refer to page 1000
- KT cable shears refer to page 999
- PVL 1300 pressing pliers battery-operated refer to page 1031

ÖLFLEX® CRANE PUR

Reelable polyurethane cables for low, medium and high mechanical stress

Info

- Multifunctional application possibilities, flexible use down to -40°C
- 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, unreeled, and guided by roller trains
- In dry or damp interiors, outdoors, or not more than 2 weeks without interruption in industrial water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX® 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® 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 60811-404
- Good chemical, thermal and mechanical-resistance
- For connecting mobile equipment in hazardous areas acc. to DIN VDE 0165

Product Make-up

- 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

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

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

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
U_0/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 to +80°C

Article number	Number of cores and mm² 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	1000	72	197
0045210	7 G 1.5	12.9	2500	100.8	239
0045211	12 G 1.5	17.6	2500	172.8	401
0045212	18 G 1.5	17.5	2500	259.2	507
0045213	24 G 1.5	20.7	2500	345.6	673
0045215	30 G 1.5	28.9	3000	432	1100
0045214	36 G 1.5	31.4	3000	518.4	1350
0045216	4 G 2.5	12.2	500	96	227
0045218	5 G 2.5	13.2	2000	120	274
0045220	7 G 2.5	15.4	3000	168	358
0045221	12 G 2.5	21.6	3000	288	619
0045222	18 G 2.5	21.5	3000	432	793
0045223	24 G 2.5	25.5	3000	576	1123
0045224	30 G 2.5	34.7	3000	720	1641

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Tensile strength (N)	Copper index (kg/km)	Weight (kg/km)
0045225	4 G 4	14.3	1000	153.6	341
0045227	5 G 4	15.5	2000	192	411
0045228	4 G 6	16.6	1500	230.4	457
0045229	5 G 6	17.7	2000	288	538
0045235	7 G 6	21.5	2500	403	750
0045230	4 G 10	19.2	2000	384	674
0045237	5 G 10	21.6	2500	480	825
0045231	4 G 16	22.2	2500	614.4	966
0045238	5 G 16	25.6	3500	768	1222
0045232	4 G 25	27.6	3500	960	1506
0045233	4 G 35	31	4500	1344	2004
0045234	4 G 50	36.1	6000	1920	2838
0045240	3x25+3G6	25.7	2000	892.8	1380
0045241	3x35+3G6	27.6	2500	1180.8	1695
0045242	3x50+3G10	32.1	3500	1728	2307

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

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

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004
- KT cable shears refer to page 999

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 not more than 2 weeks without interruption of submersion in industrial or sea water
- The application profiles for ÖLFLEX® CRANE and ÖLFLEX® 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® 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 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

Norm references / Approvals

- Based on VDE 0250

Product Make-up

- Strands of bare copper wires
- Core insulation: rubber compound
- Special supporting element as strain relief
- Outer sheath: rubber compound, type EM2

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
Fixed installation: 6 x outer diameter

Nominal voltage
U_0/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 mm² 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	19.2	89
0039002	3 G 1.0	8.3	300	28.8	106
00390033	4 G 1.0	8.9	300	38.4	127
00390043	5 G 1.0	10.4	300	48	149
0039107	7 G 1.0	12.9	300	67.2	206
0039109	9 G 1.0	14.4	300	86.4	281
0039054	12 G 1.0	18.5	360	115.2	422
0039055	18 G 1.0	19.2	540	172.8	451
0039056	24 G 1.0	22.1	720	230.4	646
0039057	36 G 1.0	26.1	1080	345.6	863
0039017	2 X 1.5	8	300	28.8	108
0039018	3 G 1.5	8.7	300	43.2	128
00390193	4 G 1.5	9.9	300	57.6	158
00390203	5 G 1.5	10.9	300	72	188
0039061	7 G 1.5	14	315	100.8	260
0039208	8 G 1.5	15.2	360	115.2	300
0039209	9 G 1.5	15.9	405	129.6	375
0039210	10 G 1.5	17	450	144	427
0039058	12 G 1.5	19.9	540	172.8	557

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Tensile strength (N)	Copper index (kg/km)	Weight (kg/km)
0039059	18 G 1.5	20.9	810	259.2	608
0039060	24 G 1.5	23.4	1080	345.6	825
0039034	2 X 2.5	9.7	300	48	145
0039035	3 G 2.5	10.2	300	72	173
00390363	4 G 2.5	11.6	300	96	219
00390373	5 G 2.5	12.4	375	120	259
0039307	7 G 2.5	16.6	525	168	378
0039309	9 G 2.5	18.9	675	216	518
0039312	12 G 2.5	23.3	900	288	770
0039316	16 G 2.5	22.8	1200	384	749
0039318	18 G 2.5	24.4	1350	432	837
0039324	24 G 2.5	28.5	1800	576	1184
00390463	4 G 4	15.2	480	153.6	307
00390473	5 G 4	16.8	600	192	394
00390483	4 G 6	16.8	720	230.4	409
00390493	5 G 6	19.2	900	288	528
00390503	4 G 10	21.8	1200	384	698
00390513	5 G 10	24.6	1500	480	853
00390523	4 G 16	25.4	1920	614.4	974
00390533	5 G 16	28	2400	768	1226

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

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

Accessories

- SKINTOP® CLICK System

ÖLFLEX® CRANE 2S

Flexible at cold temperatures, PVC cables with external steel supporting elements

Info

- Double tensile strength safety
- Teach pad cable

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® LIFT cables can be found in the appendix, selection table A3

Product features

- Flame-retardant according IEC 60332-1-2
- Flexible at low temperatures

Norm references / Approvals

- Based on VDE 0250

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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
U_0/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 mm² 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	373
0027504	12 G 1.5	16.2	21	172.8	439
0027505	20 G 1.5	20.1	25	288	674

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004

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® 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® LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according IEC 60332-1-2
- Good weather-resistance

Norm references / Approvals

- VDE registration under VDE reg. no. 7039

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000826
ETIM 5.0 Class-Description: Elevator cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Suspension length
refer to article table

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
U_0/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 mm² 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	67.2	178
0027022	12 G 1.0	16.3	80	115.2	332
0027024	18 G 1.0	16.4	70	172.8	405
0027027	24 G 1.0	19.4	60	230.4	533
0027029	36 G 1.0	25.1	90	345.6	887

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT T refer to page 168
- ÖLFLEX® LIFT S refer to page 169

Accessories

- Round cable wedged clamps
- KT cable shears refer to page 999

ÖLFLEX® LIFT T

Flexible at cold temperatures, PVC lift cables with textile braiding and supporting element

Info

- Robust cable design
- Suspension length up to 90 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® 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® LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according IEC 60332-1-2
- Good weather-resistance
- Flexible at low temperatures

Norm references / Approvals

- VDE registration under VDE reg. no. 7040

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000826
ETIM 5.0 Class-Description: Elevator cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Suspension length
refer to article table

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
U_0/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 mm² per conductor	Outer diameter (mm)	Max. suspension length (m)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® LIFT T					
0027001	7 G 1.0	14.5	80	67	225
0027002	12 G 1.0	19.2	80	115	410
0027008	18 G 1.0	19.5	70	172.8	475
0027004	20 G 1.0	20.3	70	192	525
0027005	24 G 1.0	22.1	60	230	600
0027007	36 G 1.0	28.6	90	345.6	950
0027006	28 G 1,0 + 2 x (0,5) C	25.2	90	293	765

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT refer to page 167
- ÖLFLEX® LIFT S refer to page 169

Accessories

- Round cable wedged clamps
- KT cable shears refer to page 999

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® 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® LIFT cables please see the catalogue appendix, technical table T5

Product features

- Flame-retardant according IEC 60332-1-2
- Good weather-resistance
- Flexible at low temperatures

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000826
ETIM 5.0 Class-Description: Elevator cable

Core identification code
Black with white numbers acc. to VDE 0293-1

Suspension length
refer to article table

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
U_0/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 mm² 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	680
0027010	36 G 1.0	28.6	150	345.6	1092

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT refer to page 167
- ÖLFLEX® LIFT T refer to page 168

Accessories

- Round cable wedged clamps
- STAR STRIP stripping tool refer to page 1000

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® LIFT cables can be found in the appendix, selection table A3

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- Based on VDE 0250 (NGFLGÖU)

Product Make-up

- Strands of bare or tinned-copper wires
- Core insulation: rubber compound
- Outer sheath: special rubber compound

Technical data

Classification
ETIM 5.0 Class-ID: EC000825
ETIM 5.0 Class-Description: Flat cable

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

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
Fixed installation: 4 x cable thickness

Nominal voltage
U_0/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
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² 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	57.6	200
0041042	5 G 1.5	21.5 x 6.2	72	240
0041043	7 G 1.5	29.0 x 6.2	100.8	360
0041044	8 G 1.5	31.5 x 6.2	115	370
0041045	10 G 1.5	40.0 x 6.5	144	520
0041046	12 G 1.5	47.0 x 6.5	172.8	620
0041047	4 G 2.5	21.0 x 7.5	96	280
0041048	5 G 2.5	27.0 x 7.5	120	400
0041049	7 G 2.5	35.0 x 7.5	168	520
0041050	8 G 2.5	39.0 x 7.5	192	550
0041051	12 G 2.5	56.0 x 8.0	288	800

Article number	Number of cores and mm² per conductor	Outer dimensions, width x height (mm)	Copper index (kg/km)	Weight (kg/km)
0041052	4 G 4	26.0 x 9.0	153.6	410
0041053	7 G 4	42.0 x 9.0	268.8	700
0041054	4 G 6	29.0 x 9.5	230	600
0041055	5 G 6	35.0 x 9.5	288	650
0041056	7 G 6	42.0 x 9.5	403	850
0041057	4 G 10	33.0 x 11.0	384	800
0041059	4 G 16	38.0 x 13.0	614	1150
0041060	4 G 25	49.5 x 15.0	960	1700
0041061	4 G 35	55.0 x 17.0	1344	2360
0041062	4 G 50	63.0 x 19.0	1920	3000
0041063	4 G 70	71.0 x 22.0	2688	4000

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® LIFT F refer to page 172

Accessories

- Cable trolley systems
- Flat cable wedge clamps

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 IEC 60332-1-2

Norm references / Approvals

- Based on VDE 0250 (NGFLGÖU)

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000825
ETIM 5.0 Class-Description: Flat cable

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

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
Fixed installation: 4 x cable thickness

Nominal voltage
U_0/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
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² 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	220
0041076	8 G 1.5	36.0 x 7.5	155	470
0041077	12 G 1.5	54.5 x 8.5	238	745
0041078	4 G 2.5	22.5 x 7.5	141	320
0041079	12 G 2.5	69.5 x 9.5	499	1180
0041080	4 G 4	29.0 x 10.5	219	505
0041081	4 G 6	31.0 x 10.5	302	605
0041082	4 G 10	36.0 x 11.5	472	840
0041083	4 G 16	41.5 x 13.5	687	1180
0041084	4 G 25	47.0 x 15.0	1114	1605
0041085	4 G 35	55.0 x 17.0	1482	2520
0041086	4 G 50	66.0 x 20.5	2238	3000

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE F refer to page 170
- ÖLFLEX® LIFT F refer to page 172

Accessories

- Cable trolley systems
- Flat cable wedge clamps

ÖLFLEX® LIFT F

Flexible at cold temperatures, PVC flat cables

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 IEC 60332-1-2

Norm references / Approvals

- Based on EN 50214/ VDE 0283-2 (H05VVH6-F or H07VVH6-F)
- Meets the requirements of the harmonised PVC flat cable H07VVH6-F

Product Make-up

- Strands of bare copper wires
- Core insulation: Based on PVC
- Outer sheath: Based on PVC

Info

- For cable trolley application
- Space-saving installation
- Also suitable for power chains and lift applications

Technical data

Classification
ETIM 5.0 Class-ID: EC000825
ETIM 5.0 Class-Description: Flat cable

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

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 (from nominal conductor cross section 10 mm²: finely stranded/ class 5)

Minimum bending radius
Flexible use: 10 x cable thickness

Nominal voltage
Up to 1.0 mm²: U_0/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 mm² 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	36.0 x 4.7	115	392
0042021	16 G 1.0	48.5 x 4.7	153.6	521
0042022	20 G 1.0	59.0 x 4.7	192	645
0042023	24 G 1.0	71.5 x 4.7	230	772
Nominal voltage U0/U: 450/750 V, temperature range: -15°C to +70°C				
00420013	4 G 1.5	15.5 x 5.2	57.6	132
00420023	5 G 1.5	19.7 x 5.2	72	170
0042003	7 G 1.5	27.0 x 5.2	100.8	236
0042004	8 G 1.5	29.0 x 5.2	115	266
0042005	10 G 1.5	36.5 x 5.2	144	333
0042006	12 G 1.5	42.0 x 5.2	172.8	422
00420073	4 G 2.5	19.0 x 5.9	96	206
00420083	5 G 2.5	24.0 x 5.9	120	257
0042009	7 G 2.5	32.5 x 5.9	168	345
0042010	8 G 2.5	35.0 x 5.9	192	390
0042050	12 G 2.5	52.5 x 5.9	288	580
00420113	4 G 4	21.0 x 6.8	153.6	343
0042012	7 G 4	38.0 x 6.8	268.8	589
00420133	4 G 6	24.0 x 7.3	230	425
00420143	4 G 10	30.5 x 9.5	384	709
00420153	4 G 16	35.0 x 10.8	614	1015
00420163	4 G 25	42.0 x 13.0	960	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CRANE F refer to page 170

Accessories

- Cable trolley systems
- Flat cable wedge clamps

ÖLFLEX® HEAT 105 MC

Colour-coded connection cables made of high heat-resistant PVC

Info

- Based on H05V2V2-F

Benefits

- Possible to operate at higher peak temperature (almost 30% more) compared to conventional PVC cables

Application range

- For connection of motors, transformers, reels, plants, machines, appliances, switch cabinets and other installations with a higher operating or ambient temperature
- For indoor and outdoor use

Product features

- Resistant to acids, alkalis and certain oils at room temperature
- Flame-retardant according IEC 60332-1-2
- Good UV-resistance

Norm references / Approvals

- Based on EN 50525-2-11

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

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_0/U: 300/500 V

Test voltage
2500 V

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

Temperature range
Occasional flexing: +5°C to +90°C
Fixed installation: -20°C to +90°C
Short-term: +105 °C

Article number	Number of cores and mm² 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	95
0026005	7 G 0.75	9.7	50	113
0026006	2 X 1	6.5	19.2	61
0026007	3 G 1	6.9	29	74
00260083	4 G 1	7.7	38.4	89
00260093	5 G 1	8.4	48	110
0026010	7 G 1	10.2	67	130
0026011	2 X 1.5	7.5	29	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	144
0026015	7 G 1.5	12.3	101	180

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 125 MC refer to page 174

Accessories

- SKINTOP® CLICK refer to page 715
- KS 20 cable shears refer to page 999

ÖLFLEX® HEAT 125 MC

Electron beam cross-linked cables for more demanding application requirements

Info

- Substitudes previous ÖLFLEX® HEAT 145 MC
- Improved characteristics in the event of a fire
- GL - Germanischer Lloyd approved

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 use in traffic regulation systems and outdoors
- Coil winding, electromagnets, pumps, electrical systems
- Heat Treatment plants, pressure die casting, heating and cooling technology
- For outdoor applications

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, NF C 32-070 (C1) and NF-F 16-101 (Class C))
  - Low toxicity (EN 50305)
- No flame-propagation according to IEC 60332-3-22, IEC 60332-3-24 and IEC 60332-3-25 (Flame spread on vertical cable bundle)
- Oil-resistant acc. IEC 60227-1 (ST9) and EN 50264-1 (EM104)
- UV-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Norm references / Approvals

- GL - Germanischer Lloyd approved
- Based on EN 50525-3-21 and EN 50525-3-41

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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 1.0mm² U_0/U 300/500 V
From 1.5mm² U_0/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation

Test voltage
4000 V

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

Temperature range
Occasional flexing: -35 °C to +120 °C
Fixed installation: -55°C to +125°C
Temporary (3.000h): up to +145°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 125 MC 300/500V				
1024300	2 X 0.5	6.0	9.6	38
1024301	3 G 0.5	6.3	14.4	46
1024307	2 X 0.75	6.4	14.4	40
1024308	3 G 0.75	6.8	21.6	53
1024309	4 G 0.75	7.4	28.8	69
1024310	5 G 0.75	8.3	36	86
1024311	7 G 0.75	9.0	50	127
1024315	2 X 1	6.6	19.2	50
1024316	3 G 1	7.0	28.8	67
1024317	4 G 1	7.8	38.4	87
1024318	5 G 1	8.6	48	107
1024319	7 G 1	9.5	67	152
1024320	12 G 1	12.8	115	221

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 125 MC 450/750V				
1024323	2 X 1.5	7.6	29	71
1024324	3 G 1.5	8,3	43	96
1024325	4 G 1.5	9,0	58	123
1024326	5 G 1.5	10,1	72	156
1024327	7 G 1.5	11,2	101	224
1024328	12 G 1.5	15,1	173	316
1024333	2 X 2.5	9.0	48	102
1024334	3 G 2.5	9.8	72	145
1024335	4 G 2.5	10.8	96	189
1024336	5 G 2.5	11.9	120	235
1024337	7 G 2.5	13.2	168	344
1024341	4 G 4	12.7	154	276
1024342	5 G 4	14.0	192	334
1024346	4 G 6	14.1	230	341
1024347	5 G 6	15.8	288	431

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004
- SILVYN® HCX refer to page 919
- SILVYN® EMC AS-CU refer to page 899
- STAR STRIP stripping tool refer to page 1000

NEW

ÖLFLEX® HEAT 125 C MC

Electron beam cross-linked cables for more demanding application requirements

Info

- Substitudes previous ÖLFLEX® HEAT 145 C MC
- Improved characteristics in the event of a fire
- GL - Germanischer Lloyd approved

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
- Copper braiding screens the cable against electromagnetic interference

Application range

- For outdoor applications
- 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
- Coil winding, electromagnets, pumps, electrical systems
- Heat Treatment plants, pressure die casting, heating and cooling technology

Accessories

- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-SC refer to page 794
- EASY STRIP stripping and cutting tool refer to page 1004
- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® EMC AS-CU refer to page 899
- STAR STRIP stripping tool refer to page 1000

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, NF C 32-070 (C1) and NF-F 16-101 (Class C))
  - Low toxicity (EN 50305)
- No flame-propagation according to IEC 60332-3-22, IEC 60332-3-24 and IEC 60332-3-25 (Flame spread on vertical cable bundle)
- Oil-resistant acc. IEC 60227-1 (ST9) and EN 50264-1 (EM104)
- UV-resistant according to ISO 4892-2
- Ozone-resistant according to EN 50396

Norm references / Approvals

- GL - Germanischer Lloyd approved
- Based on EN 50525-3-21 and EN 50525-3-41

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable

Core identification code
Colour-coded according to VDE 0293-308, refer to Appendix T9 or black with white numbers refer to article table

Specific insulation resistance
>2 TOhm 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: 5 x outer diameter

Nominal voltage
Up to 1.0mm² U_0/U 300/500 V
From 1.5mm² U_0/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation

Test voltage
C/C 4000 V, C/S 2500 V

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

Temperature range
Occasional flexing: -35 °C to +120 °C
Fixed installation: -55°C to +125°C
Temporary (3.000h): up to +145°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 125 C MC 300/500 V - colour-coded				
1024400	2 X 0.5	6.8	41	45
1024401	3 G 0.5	7.1	45.5	59
1024407	2 X 0.75	7.2	46	79
1024408	3 G 0.75	7.6	57.9	96
1024409	4 G 0.75	8.4	64	116
1024410	5 G 0.75	9.1	77.4	139
1024415	2 X 1	7.4	56	90
1024416	3 G 1	8.0	65.3	104
1024417	4 G 1	8.6	78.1	129
1024418	5 G 1	9.6	89.4	153
ÖLFLEX® HEAT 125 C MC 450/750 V - colour-coded				
1024423	2 X 1.5	8.6	65	114
1024424	3 G 1.5	9.1	83	132
1024425	4 G 1.5	10.0	100	163
1024426	5 G 1.5	11.1	125	200
1024433	2 X 2.5	10.0	112	157
1024434	3 G 2.5	10.7	146	198
1024435	4 G 2.5	11.6	167	236
1024436	5 G 2.5	12.9	200	287
1024441	4 G 4	13.7	237	317
1024446	4 G 6	15.1	318	404
1024451	4 G 10	19.3	558	669

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 125 C MC 300/500 V - Black with white numbers				
1024480	2 X 0.75	7.2	46	79
1024481	3 X 0.75	7.6	57.9	96
1024482	4 X 0.75	8.4	64	116
1024411	7 G 0.75	10.0	102	186
1024483	7 X 0.75	10.0	102	186
1024412	12 G 0.75	13.4	177	219
1024484	2 X 1	7.4	56	90
1024485	3 X 1	8.0	65.3	104
1024419	7 G 1	10.3	113.3	211
1024420	12 G 1	14.0	188.1	266
ÖLFLEX® HEAT 125 C MC 450/750 V - Black with white numbers				
1024486	2 X 1.5	8.6	65	114
1024487	4 X 1.5	10.0	100	163
1024427	7 G 1.5	12.0	149	273
1024488	7 X 1.5	12.0	149	273
1024428	12 G 1.5	16.3	280	371
1024489	3 X 2.5	10.7	146	198
1024490	4 X 2.5	11.6	167	236
1024437	7 G 2.5	14.4	288	385
1024438	12 G 2.5	19.3	477.3	569

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

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 SiO_2 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, 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 (IEC 60754-1), no corrosive gases (IEC 60754-2), flame-retardant (IEC 60332-1-2)
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Norm references / Approvals

- Based on EN 50525-2-83

Product Make-up

- Fine-wire, tinned-copper conductor
- Silicone-based core insulation
- Cores twisted in layers
- Silicone-based outer sheath, colour red-brown

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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_0/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 mm² 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	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	79
00460093	4 G 1	7.9	38.4	101
00460103	5 G 1	8.8	48	127
0046012	7 G 1	9.5	67	156
0046013	2 X 1.5	7.6	29	90
0046014	3 G 1.5	8.0	43	109
00460153	4 G 1.5	8.8	58	134
00460163	5 G 1.5	9.6	72	163
0046018	7 G 1.5	10.4	101	202
0046039	12 G 1.5	14.0	173	361
0046040	16 G 1.5	16.2	230.4	478
0046041	20 G 1.5	17.5	288	574

Article number	Number of cores and mm² 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	128
0046020	3 G 2.5	9.7	72	167
00460213	4 G 2.5	10.6	96	206
00460223	5 G 2.5	11.6	120	251
0046024	7 G 2.5	12.6	168	313
0046025	2 X 4	10.8	76.8	196
0046026	3 G 4	11.5	115	241
00460273	4 G 4	12.6	154	300
00460283	5 G 4	14.0	192	374
0046030	7 G 4	15.6	269	486
0046031	2 X 6	12.4	116	268
0046032	3 G 6	13.2	173	333
00460333	4 G 6	14.7	230	425
00460343	5 G 6	16.6	288	538
0046036	7 G 6	18.6	403	705
00460373	4 G 10	19.4	384	707
00460453	5 G 10	21.6	480	878
00460383	4 G 16	21.4	614	1004

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs 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 177
- ÖLFLEX® HEAT 180 EWKF refer to page 180

Accessories

- SILVYN® AS refer to page 896
- SKINDICHT® SHV-M-VITON® refer to page 757
- SILVYN® EDU-AS refer to page 898

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

- Harmonised use in Europe
- 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 SiO_2 ash on the conductor

Application range

- Areas with high ambient temperatures and occasionally mechanical stress
- Typical fields of application
  - Steel, 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

- **EWKF:**
  Initial tear propagation and notch resistance
- Halogen-free (IEC 60754-1), no corrosive gases (IEC 60754-2), flame-retardant (IEC 60332-1-2)
- Good hydrolysis and UV-resistance
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Norm references / Approvals

- EN 50525-2-83 (H05SS-F)

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation: based on EWKF silicone
- Cores twisted together
- Outer sheath: silicone-based EWKF, notch-resistant, black

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

Nominal voltage
U_0/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 mm² 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	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	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	154
0046912	2 X 2.5	9.8	48	141
0046913	3 G 2.5	10.4	72	158
00469143	4 G 2.5	11.6	96	195
00469153	5 G 2.5	12.9	120	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 EWKF refer to page 180
- ÖLFLEX® HEAT 180 EWKF C refer to page 181

Accessories

- SILVYN® AS refer to page 896
- SKINDICHT® SHV-M refer to page 756
- SILVYN® EDU-AS refer to page 898

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)
- Metric flexible conductor design

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 SiO_2 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, 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 (IEC 60754-1), no corrosive gases (IEC 60754-2)
- Flame-retardant acc. to IEC 60332-1-2, Cable Flame Test, CSA FT 1
- Good hydrolysis and UV-resistance
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Norm references / Approvals

- UL AWM 4476 and cUL AWM II A/B Construction B, External wiring
- UL File No. E63634

Product Make-up

- Fine-wire, tinned-copper conductor
- Silicone-based core insulation
- Cores twisted together
- Silicone-based outer sheath, colour black

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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
UL/cUL: up to +150°C
(adequate ventilation required)

Article number	Number of cores and mm² 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	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	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	904
0046628	2 X 2.5	9.6	48	146
0046629	3 G 2.5	10.2	72	178
00466303	4 G 2.5	11.1	96	220
00466313	5 G 2.5	12.2	120	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	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	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 SiF A refer to page 192
- ÖLFLEX® HEAT 180 C MS refer to page 179

Accessories

- KS 20 cable shears refer to page 999

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)
- Metric flexible conductor design

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, 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 (IEC 60754-1), no corrosive gases (IEC 60754-2)
- Flame-retardant acc. to IEC 60332-1-2, Cable Flame Test, CSA FT 1
- Good hydrolysis and UV-resistance
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Norm references / Approvals

- UL AWM 4476 and cUL AWM II A/B Construction B, External wiring
- UL File No. E63634

Product Make-up

- 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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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_0/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
UL/cUL: up to +150°C
(adequate ventilation required)

Article number	Number of cores and mm² 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	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	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

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 MS refer to page 178

Accessories

- KS 20 cable shears refer to page 999

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 SiO_2 ash on the conductor

Application range

- Areas with high ambient temperatures and occasionally mechanical stress
- Typical fields of application
  - Steel, 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

- **EWKF:**
  Initial tear propagation and notch resistance
- Halogen-free (IEC 60754-1), no corrosive gases (IEC 60754-2), flame-retardant (IEC 60332-1-2)
- Good hydrolysis and UV-resistance
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Norm references / Approvals

- Based on EN 50525-2-83

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation: based on EWKF silicone
- Cores twisted together
- Outer sheath: silicone-based EWKF, notch-resistant, black

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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

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_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 180 EWKF				
0046500	2 X 0.75	6.4	15	49
0046501	3 G 0.75	6.9	22	60
00465023	4 G 0.75	7.6	29	76
00465033	5 G 0.75	8.5	36	96
0046506	2 X 1	6.8	20	56
0046507	3 G 1	7.1	29	68
00465083	4 G 1	7.9	39	88
00465093	5 G 1	8.8	48	110
0046110	7 G 1	9.5	67.2	137
0046511	2 X 1.5	8.0	29	77
0046512	3 G 1.5	8.4	43	94
00465133	4 G 1.5	9.5	58	117
00465143	5 G 1.5	10.4	72	143

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0046115	7 G 1.5	11.0	101	180
0046116	12 G 1.5	14.9	173	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	110
0046521	3 G 2.5	9.8	72	146
00465223	4 G 2.5	11.1	96	181
00465233	5 G 2.5	12.4	120	222
0046131	3 G 4	11.5	114	213
00461323	4 G 4	12.5	152	267
00461333	5 G 4	13.9	190	334
0046141	3 G 6	13.2	174	297
00461423	4 G 6	14.7	232	381
00461433	5 G 6	16.5	290	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs 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 177
- ÖLFLEX® HEAT 180 EWKF C refer to page 181

Accessories

- SILVYN® AS refer to page 896
- SKINDICHT® SHV-M refer to page 756
- SILVYN® EDU-AS refer to page 898
- KS 20 cable shears refer to page 999

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 occasionally mechanical stress
- Typical fields of application
  - Steel, 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

- **EWKF:**
  Initial tear propagation and notch resistance
- Halogen-free (IEC 60754-1), no corrosive gases (IEC 60754-2), flame-retardant (IEC 60332-1-2)
- Good hydrolysis and UV-resistance
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Product Make-up

- 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

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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 mm² 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	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	166
0046314	3 G 1.5	11.2	74	188

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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	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	706

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 C MS refer to page 179
- ÖLFLEX® HEAT 180 EWKF refer to page 180

Accessories

- SILVYN® AS refer to page 896
- SKINTOP® MS-SC-M refer to page 732
- SKINTOP® MS-M BRUSH refer to page 733
- SILVYN® EDU-AS refer to page 898
- KS 20 cable shears refer to page 999

ÖLFLEX® HEAT 180 GLS

Steel-armoured silicone cables for increased mechanical stress

Info

- Protected against 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 SiO_2 ash on the conductor

Application range

- Areas with high ambient temperatures and occasionally mechanical stress
- Typical fields of application
  - Steel and glass works
  - Cement and ceramic works
  - Foundries
  - Shipbuilding industry
  - Furnace construction

Product features

- Halogen-free (IEC 60754-1), no corrosive gases (IEC 60754-2), flame-retardant (IEC 60332-1-2)
- Only suitable for use in dry conditions
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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 mm² 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	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	161
0046212	7 G 1	10.7	67	205
0046213	2 X 1.5	8.8	29	119
0046214	3 G 1.5	9.2	43	140
00462153	4 G 1.5	10.0	57.6	168
00462163	5 G 1.5	10.8	72	212
0046218	7 G 1.5	11.8	101	255
0046237	12 G 1.5	15.4	173	433
0046219	2 X 2.5	10.0	48	162
0046220	3 G 2.5	10.9	72	217
00462213	4 G 2.5	12.0	96	260
00462223	5 G 2.5	13.0	120	310
0046224	7 G 2.5	14.0	168	362
0046226	3 G 4	12.9	115	300
00462273	4 G 4	14.0	154	365
00462283	5 G 4	15.4	192	446
00462313	4 G 6	16.1	230	500
00462343	4 G 10	20.8	384	807
00462353	4 G 16	22.8	614	1117

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 260 GLS refer to page 186

Accessories

- KS 20 cable shears refer to page 999

ÖLFLEX® HEAT 205 MC

Fluorinated ethylene propylene cables for harsh applications

Info

- Good chemical resistance
- Wide temperature application range
- Thin, light and robust

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
- Due to good electrical and mechanical properties suitable for sensor technology

Application range

- For use in environments with very high operating temperatures, heavy usage of chemical agents or confined 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
- Sensor systems, e.g. level sensors

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 hydraulic fluids
- Flame retardant acc. to IEC 60332-1-2

Product Make-up

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, silver-plated copper conductor
- PTFE-based core insulation
- Cores twisted together
- Tinned-copper braiding
- Outer sheath: FEP-based, white

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

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 acc. to VDE 0295, class 5 / IEC 60228 class 5 from 0.5 mm²

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 205 MC				
0091200	2 X 0.25	3.1	5	17.2
0091201	3 G 0.25	3.3	7.5	22.2
00912023	4 G 0.25	3.6	10	27.5
0091210	2 X 0.5	3.8	9.8	21.6
0091211	3 G 0.5	4.0	14.7	32.8
00912123	4 G 0.5	4.4	19.6	44.4
0091220	2 X 0.75	4.2	14.4	31.5
0091221	3 G 0.75	4.6	21.6	46.1
00912223	4 G 0.75	4.9	29	57.9
0091230	2 X 1	4.5	19	41.6
0091231	3 G 1	4.8	29	55.6
00912323	4 G 1	5.3	38	70
0091100	3 G 1.5	5.6	43	70
00911033	4 G 1.5	6.1	58	98
00911013	5 G 1.5	6.8	72	117
0091102	7 G 1.5	7.4	101	184
0091236	3 G 2.5	6.6	72	86
00912353	4 G 2.5	7.3	96	115
00912373	5 G 2.5	8.2	120	144
00912423	4 G 4	8.7	154	180
00912433	5 G 4	9.6	192	225
ÖLFLEX® HEAT 205 PTFE/FEP				
30016373	4 X 0.75	5.9	49	78

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs 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 184

Accessories

- SILVYN® AS refer to page 896
- SKINDICHT® SHV-M refer to page 756
- SILVYN® EDU-AS refer to page 898
- KS 20 cable shears refer to page 999

ÖLFLEX® HEAT 260 MC

Polytetrafluoroethylene cables for most extreme loads

Info

- Excellent chemical, thermal and electrical performance
- Thin, light and robust

Benefits

- Space-saving installation due to small cable diameters
- Stress crack resistant to frequent ambient temperature fluctuations
- Due to good electrical and mechanical properties suitable for sensor technology
- Low outgassing behaviour

Application range

- For use in environments with very high operating temperatures, heavy usage of chemical agents or confined 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
- Sensor systems, e.g. level sensors

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 hydraulic fluids
- Flame retardant acc. to IEC 60332-1-2

Product Make-up

- Fine-wire strand made of nickel-plated copper
- PTFE-based core insulation
- Cores twisted together
- PTFE-based outer sheath, black

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

Nominal voltage
U_0/U: 300/500 V

Test voltage
2500 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				
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	118
0091320	3 G 2.5	7.1	72	87
0091321	4 G 2.5	7.7	96	116
0091322	5 G 2.5	8.5	120	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/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 205 MC refer to page 183

Accessories

- SILVYN® HIPROJACKET refer to page 914
- SILVYN® SSUE refer to page 908
- EASY STRIP stripping and cutting tool refer to page 1004
- STAR STRIP stripping tool refer to page 1000

ÖLFLEX® HEAT 260 C MC

Copper-screened polytetrafluoroethylene cables for most extreme loads

Info

- Excellent chemical, thermal and electrical performance
- Thin, light and robust
- EMC compliant copper screening

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
- Due to good electrical and mechanical properties suitable for sensor technology

Application range

- For use in environments with very high operating temperatures, heavy usage of chemical agents or confined 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
- Sensor systems, e.g. level sensors

Product features

- Copper braiding of screened version complies with EMC requirements and protects against electromagnetic interference
- 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 hydraulic fluids
- Flame retardant acc. to IEC 60332-1-2

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

Nominal voltage
U_0/U: 300/500 V

Test voltage
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 C MC				
0091330	3 G 0.75	5.5	46	75
0091331	4 G 0.75	5.9	51	87
0091332	3 G 1	5.8	48	81
0091333	4 G 1	6.4	65	104
0091334	3 G 1.5	6.3	65	101
0091335	4 G 1.5	7.2	86	134
0091336	5 G 1.5	7.8	105	162
0091337	3 G 2.5	7.9	114	160
0091338	4 G 2.5	8.7	140	204
0091339	5 G 2.5	9.4	209	270

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.

Accessories

- SILVYN® SSUE refer to page 908
- EASY STRIP stripping and cutting tool refer to page 1004
- STAR STRIP stripping tool refer to page 1000

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 certification 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
- Electronics for industry and shipping, ship electrics

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 use in dry conditions

Norm references / Approvals

- Germanischer Lloyd (GL) certificate no. 5449871 HH

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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

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
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 260 GLS				
0091120	2 X 1.5	5.7	29	93
0091121	3 G 1.5	6.1	43	102
00911223	4 G 1.5	6.6	58	130
00911233	5 G 1.5	7.3	72	149
0091124	7 G 1.5	8.0	101	180

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® HEAT 180 GLS refer to page 182

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004

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
- Wide operating temperature range allows the product to be used in applications under Thermal Class C (>180°C).

Application range

- Blast furnaces and glassworks
- Chemical and power station construction
- Motor and furnace construction
- Extrusion and drying systems
- Lighting, apparatus and instrument industry

Product features

- Flame-retardant
- Halogen-free
- Only suitable for use in dry conditions
- ÖLFLEX® HEAT 1565 MC is recommended if the peak temperature of the application may briefly go beyond 350°C

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

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
U_0/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 mm² 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	140
0091390	3 G 2.5	8.9	72	124
0091391	4 G 2.5	9.8	96	160
0091392	5 G 2.5	10.1	120	194

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil ≤ 30 kg, 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 350 SC refer to page 197
- ÖLFLEX® HEAT 1565 MC refer to page 188

Accessories

- SILVYN® SSUE refer to page 908

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
- Halogen-free
- Only suitable for use in dry conditions

Product Make-up

- 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

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description:
Flexible cable

Core identification code
2-core cable:
blue, brown
4-core cable:
black, blue, yellow, red

Conductor stranding
Fine copper wire strands

Minimum bending radius
Fixed installation:
5 x cable diameter

Nominal voltage
U_0/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 mm² 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	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil ≤ 30 kg, 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® SSUE refer to page 908

NEW

ÖLFLEX® HEAT 125 SC

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

Info

- Now available in cardboard boxes
- VDE-tested and -marked
- Improved characteristics in the event of a fire

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
- Coil winding, electromagnets, pumps, electrical systems
- Heat Treatment plants, pressure die casting, heating and cooling technology
- Suitable for assembling cable harnesses and wiring during switch cabinet installation

Product features

- Fire behaviour:
  - Flame-retardant (IEC 60332-1-2)
  - Halogen-free (IEC 60754-1)
  - No corrosive gases (IEC 60754-2)
  - Low smoke density (IEC 61034-2)
  - 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
- Oil-resistant according to DIN EN 50290-2-22 (TM54)
- Abrasion and notch-resistant
- UV-resistant according to ISO 4892-2

Norm references / Approvals

- Type H05Z-K und H07Z-K according to EN 50525-3-41 with advanced features
- Germanischer Lloyd (GL) certificate no. 11118-14HH

Product Make-up

- Fine-wire, tinned-copper conductor
- Electron beam cross-linked polyolefin copolymer insulation

Technical data

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

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 U_0/U 300/500 V
From 1.5mm² U_0/U 450/750 V
0.6/1kV from 1.5 mm² in the case of fixed and protected installation

Test voltage
4000 V

Temperature range
Fixed installation: -55°C to +125°C
Temporary (3.000h): up to +145°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow	orange
ÖLFLEX® HEAT 125 SC - H05Z-K - U_0/U: 300/500V											
0.5	2.2	100		4.8	8	1232003	1232001	1232106	1232002	1232000	1232009
0.5	2.2		3000	4.8	8		1232001K				
0.75	2.4	100		7.2	11	1233003	1233001	1233106	1233002	1233000	1233009
0.75	2.4		2500	7.2	11	1233003K	1233001K	1233106K	1233002K		1233009K
1	2.5	100		9.6	14	1234003	1234001	1234106	1234002	1234000	1234009
1	2.5		2500	9.6	14	1234003K	1234001K	1234106K	1234002K	1234000K	1234009K
ÖLFLEX® HEAT 125 SC - H07Z-K - U_0/U: 450/750V											
1.5	3.0	100		14.4	21	1235003	1235001	1235106	1235002	1235000	1235009
1.5	3.0		2000	14.4	21	1235003K	1235001K	1235106K	1235002K	1235000K	1235009K
2.5	3.6	100		24	33	1236003	1236001	1236106	1236002	1236000	1236009
2.5	3.6		1200	24	33		1236001K				
4	4.3	100		38.4	49	1237003	1237001	1237106	1237002	1237000	1237009
6	4.8	100		57.6	67	1238003	1238001	1238106	1238002	1238000	
10	6.2	100		96	112	1239003	1239001		1239002	1239000	
16	7.2	100		153.6	172	1240003	1240001		1240002	1240000	
25	8.9	100		240	262		1241001			1241000	
35	10.1	100		336	362		1242001			1242000	
50	12.5	100		480	512		1243001			1243000	
70	14.2	100		672	710		1244001			1244000	
95	16.6	100		912	937		1245001			1245000	
120	18.2	100		1152	1159		1246001				
150	20.6	100		1440	1447		1247001			1247000	
185	22.5	100		1776	1790		1248001				
240	26.4	100		2304	2318		1249001				

Expanded ambient temperatures • Cross-linked single cores (-55°C to +125°C)

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	dark blue	white	green	yellow	violet	red
ÖLFLEX® HEAT 125 SC - H05Z-K - U_0/U: 300/500V											
0.5	2.2	100		4.8	8	1232114	1232105	1232006	1232005	1232007	1232104
0.75	2.4	100		7.2	11	1233114	1233105	1233006	1233005	1233007	1233104
0.75	2.4		2500	7.2	11	1233114K	1233105K				1233104K
1	2.5	100		9.6	14	1234114	1234105	1234006	1234005	1234007	1234104
1	2.5		2500	9.6	14	1234114K	1234105K				1234104K
ÖLFLEX® HEAT 125 SC - H07Z-K - U_0/U: 450/750V											
1.5	3.0	100		14.4	21	1235114	1235105	1235006	1235005	1235007	1235104
1.5	3.0		2000	14.4	21	1235114K	1235105K				1235104K
2.5	3.6	100		24	33	1236114	1236105	1236006	1236005	1236007	1236104
4	4.3	100		38.4	49	1237114	1237105				1237104
6	4.8	100		57.6	67	1238114					1238104
10	6.2	100		96	112						1239104
16	7.2	100		153.6	172	1240114					1240104

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
Cross-section 0.5 - 4 mm² only available as 100 m box

Accessories

- Conductor end sleeves AH, not insulated refer to page 1013
- UNIVERSAL STRIP stripping tool refer to page 1006
- KS 20 cable shears refer to page 999

ÖLFLEX® HEAT 180 SiF

Versatile single core cable with extended temperature range

Info

- Flexible fine-wire copper conductor

Benefits

- Possesses insulating properties after combustion due to remaining SiO_2 ash on the 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 (amount of halogen acid gas) Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Flame-retardant according IEC 60332-1-2
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Product Make-up

- Fine-wire, tinned-copper conductor
- Silicone-based insulation

Technical data

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

Conductor stranding
Fine wire acc. 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
U_0/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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow	orange	white
ÖLFLEX® HEAT 180 SiF										
0.25	1.9	2.4	5.4	0047003	0047001	0047106	0047002	0047000	0047009	0047105
0.5	2.1	4.8	9	0048003	0048001	0048106	0048002	0048000	0048009	0048105
0.75	2.4	7.2	12	0049003	0049001	0049106	0049002	0049000	0049009	0049105
1	2.5	9.6	15	0050003	0050001	0050106	0050002	0050000	0050009	0050105
1.5	2.8	14.4	20	0051003	0051001	0051106	0051002	0051000	0051009	0051105
2.5	3.4	24	32	0052003	0052001	0052106	0052002	0052000		0052105
4	4.2	38	50	0053003	0053001	0053106	0053002	0053000	0053009	0053105
6	5.0	58	73	0054003	0054001	0054106	0054002	0054000		0054105
10	6.6	96	118	0055003	0055001	0055106	0055002	0055000	0055009	0055105
16	7.4	154	177		0056001	0056106	0056002	0056000		0056105
25	9.2	240	277		0057001	0057106	0057002	0057000		
35	10.3	336	374		0058001		0058002	0058000		
50	12.2	480	530		0059001			0059000		
70	14.2	672	724		0060001		0060002			
95	16.6	912	982		0061001			0061000		0061105
120	18.0	1152	1219		0062001			0062000		
150	20.0	1440	1524		0063001					
185	22.5	1776	1915		0064001					

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green	yellow	violet	red	pink
ÖLFLEX® HEAT 180 SiF								
0.25	1.9	2.4	5.4	0047006	0047005	0047007	0047104	0047008
0.5	2.1	4.8	9	0048006	0048005	0048007	0048104	0048008
0.75	2.4	7.2	12	0049006	0049005	0049007	0049104	0049008
1	2.5	9.6	15	0050006	0050005	0050007	0050104	0050008
1.5	2.8	14.4	20	0051006	0051005	0051007	0051104	0051008
2.5	3.4	24	32	0052006	0052005	0052007	0052104	
4	4.2	38	50	0053006	0053005		0053104	
6	5.0	58	73	0054006	0054005		0054104	
10	6.6	96	118				0055104	
16	7.4	154	177				0056104	
25	9.2	240	277				0057104	
35	10.3	336	374				0058104	
50	12.2	480	530				0059104	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Also available on large spools and non-returnable drums.
Photographs are not to scale and do not represent detailed images of the respective products.
Other colours are available upon request

Similar products

- ÖLFLEX® HEAT 180 SiF A refer to page 192

ÖLFLEX® HEAT 180 SiF A

UL-AWM certified Silicone single core cable with extended temperature range

Info

- A for Advanced
  here: UL and CSA certifications
- UL AWM Style 3644 (150°C/1000V)

Benefits

- Certified for the USA and Canada for export-oriented appliance and apparatus manufacturers
- Possesses insulating properties after combustion due to remaining SiO_2 ash on the 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

- Fire behaviour:
  - Flame-retardant (IEC 60332-1-2)
  - Halogen-free (IEC 60754-1)
  - No corrosive gases (IEC 60754-2)
  - Low smoke density (IEC 61034-2)
  - Low toxicity (EN 50305)
- Flame retardance rating (UL): VW-1, FT2 (Horizontal flame test)
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances

Norm references / Approvals

- UL AWM Style 3644
- UL File No. E63634

Product Make-up

- Fine-wire, tinned-copper conductor
- Silicone-based insulation

Technical data

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

Conductor stranding
Fine wire acc. 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
UL: 1000 V
IEC: U_0/U 600/1000 V

Test voltage
3000 V

Temperature range
IEC: -50°C up to +180°C
UL (AWM): up to +150°C
(adequate ventilation required)

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow	orange	dark blue
ÖLFLEX® HEAT 180 SiF A										
0.25	2.2	2.4	6.8	1249560	1249520	1249620	1249540	1249500	1249680	1249660
0.5	2.4	4.8	10.9	1249562	1249522	1249622	1249542	1249502	1249682	1249662
0.75	2.7	7.2	14	1249563	1249523	1249623	1249543	1249503	1249683	1249663
1	2.8	9.6	17.2	1249564	1249524	1249624	1249544	1249504	1249684	1249664
1.5	3.1	14.4	22.2	1249565	1249525	1249625	1249545	1249505	1249685	1249665
2.5	3.5	24	33.1	1249566	1249526	1249626	1249546	1249506	1249686	1249666
4	4.1	38	49.5	1249567	1249527	1249627	1249547	1249507		
6	5.5	58	78.3	1249568	1249528	1249628	1249548	1249508		
10	7.6	96	132.7	1249569	1249529		1249549	1249509		
16	8.4	154	192	1249570	1249530		1249550	1249510		
25	9.8	240	288.9		1249531		1249551	1249511		
35	10.9	336	386		1249532					
50	13.5	480	557.6		1249533					
70	15.5	672.2	775.2		1249534					
95	17.5	912	1004.4		1249535					

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	white	green	yellow	violet	red
ÖLFLEX® HEAT 180 SiF A								
0.25	2.2	2.4	6.8	1249600	1249720	1249700	1249640	1249580
0.5	2.4	4.8	10.9	1249602	1249722	1249702	1249642	1249582
0.75	2.7	7.2	14	1249603	1249723	1249703	1249643	1249583
1	2.8	9.6	17.2	1249604	1249724	1249704	1249644	1249584
1.5	3.1	14.4	22.2	1249605	1249725	1249705	1249645	1249585
2.5	3.5	24	33.1	1249606	1249726	1249706	1249646	1249586
4	4.1	38	49.5	1249607				1249587
6	5.5	58	78.3	1249608				1249588
10	7.6	96	132.7	1249609				1249589
16	8.4	154	192	1249610				1249590
25	9.8	240	288.9	1249611				1249591
35	10.9	336	386					1249592
50	13.5	480	557.6					1249593

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.
Cross-section 0.25 - 4 mm² only available as 100 m box
Other colours are available upon request

ÖLFLEX® HEAT 180 SiD

Silicone single core cable with solid conductor

Info

- Solid single copper conductor

Benefits

- Possesses insulating properties after combustion due to remaining SiO_2 ash on the 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 (amount of halogen acid gas) Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Flame-retardant according IEC 60332-1-2
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Product Make-up

- Tinned solid copper wire
- Silicone-based insulation

Technical data

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

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
U_0/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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	brown	black	blue	green/yellow	white
ÖLFLEX® HEAT 180 SiD								
0.5	2.0	4.8	9		0068001			0068105
0.75	2.2	7.2	12	0069003	0069001	0069002	0069000	0069105
1	2.3	9.6	15	0070003	0070001	0070002	0070000	0070105
1.5	2.6	14.4	20	0071003	0071001	0071002	0071000	0071105
2.5	3.2	24	32		0072001	0072002		
4	3.9	38	50		0073001			
6	4.6	58	64.5		0074001	0074002		

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Also available on large spools and non-returnable drums.
Photographs are not to scale and do not represent detailed images of the respective products.
Other colours are available upon request

Similar products

- ÖLFLEX® HEAT 180 SiF refer to page 191
- ÖLFLEX® HEAT 180 SiF A refer to page 192

ÖLFLEX® HEAT 180 SiF/GL

ÖLFLEX® HEAT 180 SiZ

ÖLFLEX® HEAT 180 FZLSi

Benefits

- Possesses insulating properties after combustion due to remaining SiO_2 ash on the 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
- **ÖLFLEX® HEAT 180 SiZ** is suitable as electrical sensor cable in pipe systems for modern solar hot water systems

Product features

- Halogen-free according to IEC 60754-1 (amount of halogen acid gas) Corrosiveness of combustion gases according to IEC 60754-2 (degree of acidity)
- Flame-retardant according IEC 60332-1-2
- Resistant to a multitude of oils, alcohols, vegetable and animal fats and chemical substances
- Adequate ventilation must be ensured, since the mechanical properties of silicone cables decrease from +100°C in the absence of air

Norm references / Approvals

ÖLFLEX® HEAT 180 FZLSi

- Increased voltage rating is not subject to the Low Voltage Directive 2014/35/EU

Product Make-up

ÖLFLEX® HEAT 180 SiF/GL

- Fine-wire, tinned-copper conductor
- Silicone-based insulation
- Impregnated glass fibre braiding
- White, with natural glass fibre braiding

ÖLFLEX® HEAT 180 SiZ

- Fine-wire, tinned-copper conductor
- Silicone-based insulation
- Colour of core insulation: red
- Cores connected in parallel with a separating strip
- One of the two cores is marked for identification

ÖLFLEX® HEAT 180 FZLSi

- Fine-wire, tinned-copper conductor
- Silicone-based insulation
- Colour of core insulation: red

Info

- With glass fibre protection braiding

Info

- Separable twin conductor

Info

- 10 kV high-voltage ignition wire

Technical data

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

Conductor stranding
Fine wire acc. 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_0/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 (mm²)	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
0065103	0.75	2.8	7.2	14
0065104	1	2.9	9.6	17
0065105	1.5	3.2	14.4	23
0065106	2.5	3.8	24	36
0065107	4	4.6	38	54
0065108	6	5.4	58	80
0065109	10	7.6	96	133
0065110	16	8.4	154	198
0065111	25	10.2	240	301
0065112	35	11.3	336	401
0065113	50	13.4	480	567
ÖLFLEX® HEAT 180 SiZ twin conductor				
0065201	2 x 0.5	2.1 x 4.2	9.6	17
0065202	2 x 0.75	2.3 x 4.6	14.4	24
ÖLFLEX® HEAT 180 FZLSi high-voltage ignition wire				
2510001	1 (32 x 0,2)	7.0	9.6	68
2510005	1,5 (30 x 0,25)	7.6	14.4	83

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- UNIVERSAL STRIP stripping tool refer to page 1006
- KS 20 cable shears refer to page 999

ÖLFLEX® HEAT 205 SC

For very high and low temperature requirements

Info

- Now available as spools
- Thermal and chemical resistance
- Space and weight-saving

Benefits

- Small outer diameters for maximum saving of space and weight
- Resistant to contact with mostly all highly aggressive chemical media

Application range

- For use in environments with very high operating temperatures, heavy usage of chemical agents or confined 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

- Flame retardant acc. to IEC 60332-1-2
- 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 hydraulic fluids

Product Make-up

- Fine-wire, tinned-copper conductor
- FEP core insulation
- FEP = fluorinated ethylene propylene

Technical data

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

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
U_0/U: 300/500 V

Test voltage
2500 V

Temperature range
Fixed installation: -100°C to +205°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow	orange	white
ÖLFLEX® HEAT 205 SC												
0.14	1.0	100		1.35	2.6		0080001		0080002			0080105
0.25	1.2	100		2.4	4	0081003	0081001	0081106	0081002		0081009	0081105
0.25	1.2		500	2.4	4	0081003S	0081001S		0081002S			
0.5	1.4	100		4.8	6.8	0082003	0082001	0082106	0082002	0082000	0082009	0082105
0.5	1.4		500	4.8	6.8	0082003S	0082001S		0082002S			
0.75	1.8	100		7.2	10.1	0083003	0083001		0083002	0083000		0083105
0.75	1.8		500	7.2	10.1	0083003S	0083001S		0083002S	0083000S		
1	1.9	100		9.6	12.8	0084003	0084001	0084106	0084002	0084000		0084105
1	1.9		500	9.6	12.8	0084003S	0084001S		0084002S	0084000S		
1.5	2.1	100		14.4	18	0085003	0085001		0085002	0085000		0085105
1.5	2.1		500	14.4	18	0085003S	0085001S		0085002S	0085000S		
2.5	2.6	100		24	29.5	0086003	0086001	0086106	0086002	0086000		0086105
2.5	2.6		500	24	29.5	0086003S	0086001S		0086002S	0086000S		
4	3.1	100		38	45	0087003	0087001		0087002	0087000		0087105
6	3.8			58	68	0088003	0088001		0088002	0088000		
10	4.7			96	116	0089003	0089001	0089106	0089002	0089000		0089105
16	6.6			154	175		0090001		0090002	0090000		

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	green	yellow	violet	red	transparent
ÖLFLEX® HEAT 205 SC										
0.14	1.0	100		1.35	2.6	0080006	0080005		0080104	0080010
0.25	1.2	100		2.4	4	0081006	0081005		0081104	0081010
0.25	1.2		500	2.4	4				0081104S	
0.5	1.4	100		4.8	6.8	0082006	0082005	0082007	0082104	0082010
0.5	1.4		500	4.8	6.8				0082104S	
0.75	1.8	100		7.2	10.1	0083006	0083005		0083104	0083010
0.75	1.8		500	7.2	10.1				0083104S	
1	1.9	100		9.6	12.8	0084006	0084005	0084007	0084104	0084010
1	1.9		500	9.6	12.8				0084104S	
1.5	2.1	100		14.4	18		0085005		0085104	0085010
1.5	2.1		500	14.4	18				0085104S	
2.5	2.6	100		24	29.5			0086007	0086104	0086010
2.5	2.6		500	24	29.5				0086104S	
4	3.1	100		38	45		0087005		0087104	0087010
6	3.8			58	68				0088104	0088010
10	4.7			96	116				0089104	0089010
16	6.6			154	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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.
Other colours are available upon request

Similar products

- ÖLFLEX® HEAT 260 SC refer to page 196

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004
- KT 11 cable shears

ÖLFLEX® HEAT 260 SC

For use in the most extreme conditions

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

Application range

- For use in environments with very high operating temperatures, heavy usage of chemical agents or confined spaces
- Typical fields of application
  - Aerospace engineering
  - High-frequency engineering
  - 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

- Flame retardant acc. to IEC 60332-1-2
- 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 hydraulic fluids
- Silver plated copper is characterized by good surface conductivity (skin effect) and good solderability

Product Make-up

- Silver-plated AWG copper conductor
- PTFE core insulation
- PTFE= Polytetrafluoroethylene

Info

- Excellent chemical, thermal and electrical performance
- Space and weight-saving

Technical data

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

Conductor stranding
AWG conductor sizes: 7, 19 or 37 wires

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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)	brown	black	grey	blue	green/yellow	orange
ÖLFLEX® HEAT 260 SC									
28 (7)	0.8	0.9	2	0094003	0094001	0094106	0094002	0094000	0094009
26 (7)	0.9	1.4	2.7		0095001	0095106	0095002		0095009
26 (19)	0.9	1.5	2.9		0096001	0106011		0096000	
24 (7)	1.1	2.2	3.8	0097003	0097001		0097002		
24 (19)	1.1	2.3	4	0098003	0098001	0098106	0098002	0098000	
22 (7)	1.2	3.4	5.4	0099003	0099001		0099002		
22 (19)	1.2	3.7	5.7	0100003	0100001		0100002		0100009
20 (7)	1.4	5.4	7.7	0101003	0101001		0101002		
20 (19)	1.4	5.9	8.2	0102003	0102001	0102106	0102002	0102000	0102009
18 (7)	1.7	8.6	12		0103001				
18 (19)	1.7	9.3	12	0104003	0104001		0104002	0104000	0104009
16 (19)	2.0	11.8	16	0105003	0105001		0105002	0105000	0105009
14 (19)	2.4	18.7	23	0106003	0106001	0106106	0106002	0106000	
12 (19)	2.8	29.6	35	0107003	0107001		0107002	0107000	0107009
10 (37)	3.4	45.6	51		0108001		0108002	0108000	

AWG No. and wire number	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	white	green	yellow	violet	red
ÖLFLEX® HEAT 260 SC								
28 (7)	0.8	0.9	2	0094105	0094006	0094005	0094007	0094104
26 (7)	0.9	1.4	2.7	0095105	0095006		0095007	0095104
26 (19)	0.9	1.5	2.9		0096006			0096104
24 (7)	1.1	2.2	3.8	0097105				0097104
24 (19)	1.1	2.3	4	0098105	0098006			0098104
22 (7)	1.2	3.4	5.4	0099105	0099006	0099005	0099007	0099104
22 (19)	1.2	3.7	5.7	0100105		0100005		0100104
20 (7)	1.4	5.4	7.7	0101105	0101006			0101104
20 (19)	1.4	5.9	8.2	0102105	0102006	0102005	0102007	0102104
18 (7)	1.7	8.6	12					0103104
18 (19)	1.7	9.3	12	0104105	0104006	0104005	0104007	0104104
16 (19)	2.0	11.8	16	0105105	0105006	0105005	0105007	0105104
14 (19)	2.4	18.7	23	0106105	0106006	0106005		0106104
12 (19)	2.8	29.6	35	0107105	0107006	0107005		
10 (37)	3.4	45.6	51	0108105				0108104

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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.
Other colours are available upon request

Similar products

- ÖLFLEX® HEAT 205 SC refer to page 195

Accessories

- EASY STRIP stripping and cutting tool refer to page 1004
- KT 11 cable shears

ÖLFLEX® HEAT 350 SC

Suitable for use in ambient temperature from -50 °C to +350 °C

Info

- 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 (>180°C).
- Blast furnaces and glassworks
- Chemical and power station construction
- Motor and furnace construction
- Lighting, apparatus and instrument industry

Product features

- Flame-retardant
- Halogen-free
- Only suitable for use in dry conditions
- ÖLFLEX® HEAT 650 SC and ÖLFLEX® HEAT 1565 SC are recommended if the peak temperature of the application may go beyond +350°C

Product Make-up

- Fine-wire strand made of nickel-plated copper
- Core insulation: glass fibre covering and impregnated glass fibre braids
- Core insulation from 16 mm²: mica wrapping and impregnated glass fibre braid
- Colour of core insulation: white

Technical data

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

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
U_0/U: 300/500 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
0091351	0.75	3.0	7.2	15
0091352	1	3.4	9.6	17
0091353	1.5	3.5	14.4	23
0091354	2.5	3.7	24	34
0091355	4	4.2	38.4	54
0091356	6	6.2	57.6	84
0091357	10	7.3	96	120
0091358	16	8.0	153.6	199
0091359	25	9.5	240	300
0091360	35	10.9	336	399
0091361	50	13.2	480	540

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil ≤ 30 kg, 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 650 SC refer to page 199
- ÖLFLEX® HEAT 1565 SC refer to page 198

Accessories

- SILVYN® SSUE refer to page 908
- BULLI cable shears refer to page 998
- SMART STRIP stripping tool

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 use in dry conditions

Product Make-up

- Fine-wire strand made of nickel-plated copper
- Mica tape wrapping
- Impregnated glass fibre braiding, core colour: red

Technical data

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

Conductor stranding
Fine copper wire strands

Minimum bending radius
Fixed installation: 5 x outer diameter

Nominal voltage
U_0/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 (mm²)	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	35
3018942	4	4.8	38.4	56
3020783	6	5.6	57.6	86.4
3016697	10	6.2	96	123
3016698	16	7.9	153.6	202.5
3016699	25	9.2	240	295.1
3016771	35	10.6	336	403.9
3017861	50	12.2	480	545

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil ≤ 30 kg, 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® SSUE refer to page 908
- STAR STRIP stripping tool refer to page 1000
- KS 15 cable shears

ÖLFLEX® HEAT 650 SC

Suitable for use in ambient temperature from -50°C to +700°C

Info

- For use in dry conditions

Benefits

- Suitable for areas where the installation temperature and ambient temperature is very high
- Good electrical conductivity at high temperatures, low conductor resistance due to nickel strand

Application range

- Heating modules, electric heating devices, heat lockers
- Furnaces, electric ranges, night storage heater
- Heavy industry, iron and steel works, foundries, glass and ceramic processing, chemical industries
- Machinery, apparatus and power plant construction

Product features

- Flame-retardant
- Halogen-free
- Only suitable for use in dry conditions
- ÖLFLEX® HEAT 1565 SC is recommended if the peak temperature of the application may briefly go beyond 700°C

Product Make-up

- Strand made of nickel
- Core insulation: glass fibre covering and impregnated glass fibre braids

Technical data

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

Conductor stranding
Fine wire
see data sheet

Minimum bending radius
Fixed installation: 5 x outer diameter

Nominal voltage
U_0/U: 300/500 V

Test voltage
1800 V

Temperature range
Occasional flexing: -50°C to +650°C
Fixed installation: -50°C to +700°C
(adequate ventilation required)

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Ni-index (kg/km)	Weight (kg/km)
ÖLFLEX® HEAT 650 SC				
1232650	0.5	2.4	4.8	13
1232651	0.75	2.5	7.6	15
1232652	1	2.7	9.7	17
1232653	1.5	3.0	14.8	23
1232654	2.5	3.5	23.5	34
1232655	4	3.9	38.6	54
1232656	6	4.6	57.9	84
1232657	10	6.8	96.5	120
1232658	16	7.5	152	199
1232659	25	9.0	236.4	300
1232660	35	10.4	332.8	399
1232661	50	12.7	481.1	540

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, 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

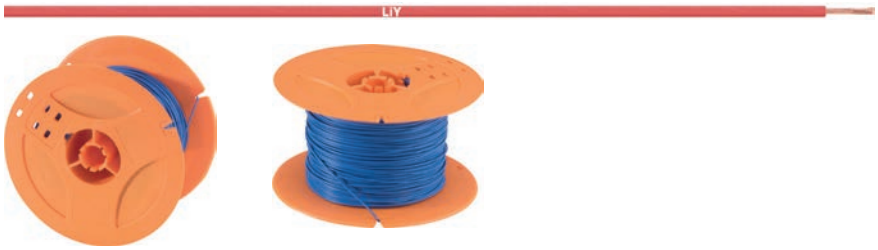
- ÖLFLEX® HEAT 1565 SC refer to page 198

Accessories

- SILVYN® UI 511 refer to page 912
- SMART STRIP stripping tool
- KS 20 cable shears refer to page 999

LiY

Stranded hook-up wire for telecommunication devices and electronic components



Info

- PVC control hook-up wire
- Cost-effective

Application range

- Stranded hook-up wires for wiring of telecommunication devices and electronic components within devices

Product features

- Flame-retardant according IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 150 mm; b = 85 mm

Norm references / Approvals

- Based on VDE 0812

Product Make-up

- Stranded copper wire
- Core insulation: PVC-based, type YI 2/TI 2 according to VDE 0207-4

Technical data

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

Peak operating voltage
500 V (0.14 mm²)
900 V (0.25 sq.mm)

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

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	brown	black	grey	blue	green/yellow
0.14	1.1	500	1.35	4125003S	4125001S	4125106S	4125002S	4125000S
0.25	1.3	250	2.4	4126003S	4126001S	4126106S	4126002S	4126000S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	orange	dark blue	white	green	yellow
0.14	1.1	500	1.35	4125009S		4125105S	4125006S	4125005S
0.25	1.3	250	2.4	4126009S	4126014S	4126105S	4126006S	4126005S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	violet	red	pink
0.14	1.1	500	1.35	4125007S	4125104S	4125008S
0.25	1.3	250	2.4	4126007S	4126104S	4126008S

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

LiY with twin colour helix insulation

Stranded hook-up wire with telecommunication conductor and coloured stripes

Info

- PVC control hook-up wire
- Cost-effective
- Twin-colour spiralized PVC

Application range

- Stranded hook-up wires for wiring of telecommunication devices and electronic components within devices

Product features

- Flame-retardant according IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 150 mm; b = 85 mm

Norm references / Approvals

- Based on VDE 0812

Product Make-up

- Stranded copper wire
- Core insulation: PVC-based, type YI 2/TI 2 according to VDE 0207-4
- Labelled with coloured stripes

Technical data

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

Peak operating voltage
900 V (0.25 sq.mm)

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

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	blue/white	blue/black	brown/green	brown/white
0.25	1.5	250	2.4	4502262S	4502232S	4502282S	4502292S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	green-white	orange-white	white-blue	white-red
0.25	1.5	250	2.4	4502342S	4502392S	4502442S	4502462S

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

H05V-K <VDE>

<VDE> cable type certification

Info

- <VDE>

Benefits

- Cables' <VDE> marking is a testing mark/ proof of the successful testing according to VDE/ EN/ HD/ IEC standards as well as possible health and safety regulations. <VDE> is issued by the VDE testing and certification institute.

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 IEC 60332-1-2

Norm references / Approvals

- <VDE> cable type certification acc. EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
4 x outer diameter (OD) for normal use;
2 x OD for cautions bending

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow
1	2.4 - 2.8	100	9.6	15	8110033	8110013	8110063	8110023	8110003

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.
The outer diameters stated in the part number table are maximum values.

H05V-K <HAR>

European <HAR> cable type certification

Info

- <HAR>

Benefits

- Cables' <HAR>marking also stands for the international endorsement of national certification institutes' testing marks and certificates, e. g. <VDE><HAR>. The <HAR>marking is of special importance in case of goods traffic between European countries.

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 IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
4 x outer diameter (OD) for normal use;
2 x OD for cautions bending

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/ yellow
0.5	2.1 - 2.5	100		4.8	9	4510031	4510011	4510061	4510021	4510001
0.75	2.2 - 2.7	100		7.2	12	4510032	4510012	4510062	4510022	4510002
1	2.4 - 2.8	100		9.6	15	4510033	4510013	4510063	4510023	4510003
0.5	2.1 - 2.5		250	4.8	9	4510031S	4510011S	4510061S	4510021S	4510001S
0.75	2.2 - 2.7		250	7.2	12	4510032S	4510012S	4510062S	4510022S	4510002S
1	2.4 - 2.8		250	9.6	15	4510033S	4510013S	4510063S	4510023S	4510003S

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	orange	dark blue	white	green	yellow
0.5	2.1 - 2.5	100		4.8	9	4510091	4510141	4510051	4510121	4510111
0.75	2.2 - 2.7	100		7.2	12	4510092	4510142	4510052	4510122	4510112
1	2.4 - 2.8	100		9.6	15	4510093	4510143	4510053	4510123	4510113
0.5	2.1 - 2.5		250	4.8	9	4510091S	4510141S	4510051S	4510121S	4510111S
0.75	2.2 - 2.7		250	7.2	12	4510092S	4510142S	4510052S	4510122S	4510112S
1	2.4 - 2.8		250	9.6	15	4510093S	4510143S	4510053S	4510123S	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	violet	red	ultra-marine blue	Dark blue/ white	transparent
0.5	2.1 - 2.5	100		4.8	9	4510071	4510041	4510161	4510921	
0.75	2.2 - 2.7	100		7.2	12	4510072	4510042		4510922	
1	2.4 - 2.8	100		9.6	15	4510073	4510043	4510163	4510923	
0.5	2.1 - 2.5		250	4.8	9	4510071S	4510041S			
0.75	2.2 - 2.7		250	7.2	12	4510072S	4510042S	4510162S		4510102S
1	2.4 - 2.8		250	9.6	15	4510073S	4510043S	4510163S		4510103S

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	pink
0.5	2.1 - 2.5	100		4.8	9	4510081
0.75	2.2 - 2.7	100		7.2	12	4510082
1	2.4 - 2.8	100		9.6	15	4510083
0.75	2.2 - 2.7		250	7.2	12	4510082S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.
The outer diameters stated in the part number table are maximum values.

H05V-K in big one-way cardboard box

Harmonised, flexible single conductor for protected, fixed installation

Info

- Efficient
- <HAR>

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
- Time-saving assembly

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 IEC 60332-1-2

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
4 x outer diameter (OD) for normal use;
2 x OD for cautions bending

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow
0.5	2.1 - 2.5	3000	4.8	9	4511065K	4510011K	4511073K	4510021K	4510001K
0.5	2.1 - 2.5	9000	4.8	9				4510021E	
0.75	2.2 - 2.7	2500	7.2	12	4510032K	4510012K	4510062K	4510022K	4510002K
0.75	2.2 - 2.7	7500	7.2	12				4510022E	
1	2.4 - 2.8	2000	9.6	15	4510033K	4510013K	4510063K	4510023K	4510003K
1	2.4 - 2.8	6000	9.6	15		4510013E		4510023E	

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	orange	dark blue	white	green	yellow
0.5	2.1 - 2.5	3000	4.8	9		4511064K	4511072K		
0.5	2.1 - 2.5	9000	4.8	9		4511060E			
0.75	2.2 - 2.7	2500	7.2	12	4510092K	4510142K	4510052K	4510122K	4510112K
0.75	2.2 - 2.7	7500	7.2	12		4511061E			
1	2.4 - 2.8	2000	9.6	15	4510093K	4510143K	4510053K		4510113K
1	2.4 - 2.8	6000	9.6	15		4511062E			

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	violet	red	ultra-marine blue	blue/white	Dark blue/ white
0.5	2.1 - 2.5	3000	4.8	9	4511068K	4511071K	4510161K		4510921K
0.75	2.2 - 2.7	2500	7.2	12	4510072K	4510042K	4510162K	4510262K	4510922K
1	2.4 - 2.8	2000	9.6	15	4510073K	4510043K	4510163K	4510263K	4510923K

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	pink
0.75	2.2 - 2.7	2500	7.2	12	4510082K

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.
The outer diameters stated in the part number table are maximum values.

Similar products

- H05V-K <VDE> refer to page 202
- H05V-K <HAR> refer to page 203

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 1011
- EASY STRIP stripping and cutting tool refer to page 1004
- BULLI cable shears refer to page 998
- PEW 8.87 crimping pliers refer to page 1016

X05V-K with twin colour helix insulation

Info

- Twin-colour spiralized PVC

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 IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Norm references / Approvals

- Based on EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC
- Labelled with coloured stripes

Technical data

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

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
U_0/U: 300/500 V

Test voltage
2000 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	blue/white	Dark blue/white	black/white	blue/black
0.5	2.1 - 2.5	250	4.8	9	4512261S	4512921S	4512221S	4512231S
0.75	2.2 - 2.7	250	7.2	12	4512262S	4512922S	4512222S	4512232S
1	2.4 - 2.8	250	9.6	15	4512263S	4512923S	4512223S	4512233S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	m/box	Copper index (kg/km)	Weight (kg/km)	blue/green	blue / red	brown/black	brown/white
0.5	2.1 - 2.5	250		4.8	9	4512241S	4512251S		4512291S
0.75	2.2 - 2.7	250		7.2	12	4512242S	4512252S	4512272S	4512292S
0.75	2.2 - 2.7		4000	7.2	12		4512252K		
1	2.4 - 2.8	250		9.6	15	4512243S	4512253S		4512293S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	yellow-white	violet-black	violet-white	orange-black
0.5	2.1 - 2.5	250	4.8	9	4512321S	4512351S	4512371S	4512381S
0.75	2.2 - 2.7	250	7.2	12	4512322S	4512352S	4512372S	4512382S
1	2.4 - 2.8	250	9.6	15		4512353S	4512373S	4512383S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	m/box	Copper index (kg/km)	Weight (kg/km)	orange-white	red-black	red-white	white=black
0.5	2.1 - 2.5	250		4.8	9	4512391S	4512401S	4512421S	4512431S
0.75	2.2 - 2.7	250		7.2	12	4512392S	4512402S	4512422S	4512432S
1	2.4 - 2.8	250		9.6	15	4512393S	4512403S	4512423S	4512433S
1	2.4 - 2.8		2000	9.6	15	4512393K		4512423K	

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	white-blue	grey-black
0.5	2.1 - 2.5	250	4.8	9	4512441S	4512471S
0.75	2.2 - 2.7	250	7.2	12	4512442S	4512472S
1	2.4 - 2.8	250	9.6	15	4512443S	4512473S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue 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.
The outer diameters stated in the part number table are maximum values.

H07V-K <VDE>

<VDE> cable type certification

Info

- <VDE>

Benefits

- Cables' <VDE> marking is a testing mark/ proof of the successful testing according to VDE/ EN/ HD/ IEC standards as well as possible health and safety regulations. <VDE> is issued by the VDE testing and certification institute.

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

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- <VDE> cable type certification acc. EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
4 x outer diameter (OD) for normal use;
2 x OD for cautions bending

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow
1.5	2.8 - 3.4	100	14.4	22	8120031	8120011	8120061	8120021	8120001
2.5	3.4 - 4.1	100	24	37	8120032	8120012	8120062	8120022	8120002
4	3.9 - 4.8	100	38.4	45	8120033	8120013	8120063	8120023	8120003
6	4.4 - 5.3	100	57.6	71	8120034	8120014	8120064	8120024	8120004

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.
The outer diameters stated in the part number table are maximum values.

H07V-K <HAR>

European <HAR> cable type certification

Info

- <HAR>

Benefits

- Cables' <HAR>marking also stands for the international endorsement of national certification institutes' testing marks and certificates, e. g. <VDE><HAR>. The <HAR>marking is of special importance in case of goods traffic between European countries.

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

Product features

- Flame-retardant according IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-2-31
- No cable type certified core insulation colours according to EN 50525-1/ VDE 0285-525-1: transparent, green (single colour), yellow (single colour), all double colours (except of green-yellow and yellow-green)

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
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
U_0/U: 450/750 V

Test voltage
2500 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/ yellow
1.5	2.8 - 3.4		150	14.4	22	4520031S	4520011S	4520061S	4520021S	4520001S
2.5	3.4 - 4.1		100	24	37	4520032S	4520012S	4520062S	4520022S	4520002S
1.5	2.8 - 3.4	100		14.4	22	4520031	4520011	4520061	4520021	4520001
2.5	3.4 - 4.1	100		24	37	4520032	4520012	4520062	4520022	4520002
4	3.9 - 4.8	100		38.4	45	4520033	4520013	4520063	4520023	4520003
6	4.4 - 5.3	100		57.6	71	4520034	4520014	4520064	4520024	4520004
10	5.7 - 6.8	100		96	120	4520035	4520015	4520065	4520025	4520005
16	6.7 - 8.1			153.6	187	4520036	4520016	4520066	4520026	4520006
25	8.4 - 10.2			240	290	4521031	4521011		4521021	4521001
35	9.7 - 11.7			336	399	4521032	4521012	4521062	4521022	4521002
50	11.5 - 13.9			480	559		4521013		4521023	4521003
70	13.2 - 16			672	776		4521014		4521024	4521004
95	15.1 - 18.2			912	1031		4521015		4521025	4521005
120	16.7 - 20.2			1152	1285		4521016			4521006
150	18.6 - 22.5			1440	1563		4521017			4521007
185	20.6 - 24.9			1776	1915		4521018			4521008
240	23.5 - 28.4			2304	2550		4521019			4521009

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	orange	dark blue	white	green	yellow
1.5	2.8 - 3.4		150	14.4	22		4520141S	4520051S		
2.5	3.4 - 4.1		100	24	37		4520142S	4520052S		
1.5	2.8 - 3.4	100		14.4	22	4520091	4520141	4520051	4520121	4520111
2.5	3.4 - 4.1	100		24	37	4520092	4520142	4520052	4520122	4520112
4	3.9 - 4.8	100		38.4	45	4520093	4520143	4520053	4520123	4520113
6	4.4 - 5.3	100		57.6	71	4520094	4520144	4520054	4520124	4520114
10	5.7 - 6.8	100		96	120	4520095	4520145	4520055		
16	6.7 - 8.1			153.6	187	4520096	4520146	4520056	4520126	
25	8.4 - 10.2			240	290	4521091				
35	9.7 - 11.7			336	399	4521092				

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	violet	red	ultra-marine blue
1.5	2.8 - 3.4		150	14.4	22		4520041S	
2.5	3.4 - 4.1		100	24	37		4520042S	
1.5	2.8 - 3.4	100		14.4	22	4520071	4520041	4520161
2.5	3.4 - 4.1	100		24	37	4520072	4520042	4520162
4	3.9 - 4.8	100		38.4	45		4520043	4520163
6	4.4 - 5.3	100		57.6	71	4520074	4520044	4520164
10	5.7 - 6.8	100		96	120		4520045	
16	6.7 - 8.1			153.6	187		4520046	
25	8.4 - 10.2			240	290		4521041	
35	9.7 - 11.7			336	399		4521042	
50	11.5 - 13.9			480	559		4521043	
70	13.2 - 16			672	776		4521044	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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
The outer diameters stated in the part number table are maximum values.

Similar products

- MULTI-STANDARD SC 2.1 refer to page 212
- MULTI-STANDARD SC 2.2 refer to page 214

Accessories

- Mobile crimp tool crimping pliers refer to page 1033
- DIN-assorted boxes conductor end sleeves refer to page 1011
- PEW 8.87 crimping pliers refer to page 1016
- FLEXIMARK® Collar Snap-on refer to page 985

H07V-K in big one-way cardboard box

Harmonised, flexible single conductor for protected, fixed installation

Info

- Efficient
- <HAR>

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
- Time-saving assembly

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 IEC 60332-1-2

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-2-31
- No cable type certified core insulation colours according to EN 50525-1/ VDE 0285-525-1: transparent, green (single colour), yellow (single colour), all double colours (except of green-yellow and yellow-green)

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
4 x outer diameter (OD) for normal use;
2 x OD for cautions bending

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V AC

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow
1.5	2.8 - 3.4	1500	14.4	22	4520031K	4520011K	4520061K	4520021K	4520001K
1.5	2.8 - 3.4	4000	14.4	22		4520011E		4520021E	4520001E
2.5	3.4 - 4.1	900	24	37	4520032K	4520012K	4520062K	4520022K	4520002K
2.5	3.4 - 4.1	2500	24	37		4520012E		4520022E	4520002E
4	3.9 - 4.8	600	38.4	45	4520033K	4520013K	4520063K	4520023K	4520003K
4	3.9 - 4.8	2000	38.4	45		4520013E			
6	4.4 - 5.3	400	57.6	71		4520014K		4520024K	4520004K
6	4.4 - 5.3	1500	57.6	71		4520014E		4520024E	4520004E

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	orange	dark blue	white	green	yellow
1.5	2.8 - 3.4	1500	14.4	22	4520091K	4520141K	4520051K		4520111K
1.5	2.8 - 3.4	4000	14.4	22		4520141E			
2.5	3.4 - 4.1	900	24	37	4520092K	4520142K	4520052K	4520122K	
4	3.9 - 4.8	600	38.4	45	4520093K	4520143K			
6	4.4 - 5.3	400	57.6	71	4520094K				

Conductor cross-section (mm²)	Outer diameter (mm)	m/box	Copper index (kg/km)	Weight (kg/km)	violet	red	blue/white	Dark blue/white
1.5	2.8 - 3.4	1500	14.4	22	4520071K	4520041K		
1.5	2.8 - 3.4	4000	14.4	22		4520041E		
2.5	3.4 - 4.1	900	24	37		4520042K		4520922K
4	3.9 - 4.8	600	38.4	45		4520043K	4520263K	4520923K
6	4.4 - 5.3	400	57.6	71		4520044K	4520264K	4520924K
6	4.4 - 5.3	1500	57.6	71		4520044E		

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.
The outer diameters stated in the part number table are maximum values.

Similar products

- H05V-K <HAR> refer to page 203
- H07V-K <HAR> refer to page 207

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 1011
- EASY STRIP stripping and cutting tool refer to page 1004
- BULLI cable shears refer to page 998
- PEW 8.87 crimping pliers refer to page 1016

X07V-K with twin colour helix insulation

Info

- Twin-colour spiralized 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

Product features

- Flame-retardant according IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Norm references / Approvals

- Based on EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC
- Labelled with coloured stripes

Technical data

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

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

Minimum bending radius
4 x outer diameter if used as defined for H07V-K; 2 x outer diameter for short-term bending

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ spool	Copper index (kg/km)	Weight (kg/km)	blue/white	Dark blue/ white	black/red	black/white	blue/black	blue / red	brown/ white
1.5	2.8 - 3.4	150	14.4	22	4522261S	4522921S	4522211S	4522221S	4522231S	4522251S	4522291S
2.5	3,4 - 4,1	100	24	37	4522262S	4522922S		4522222S		4522252S	4522292S

Conductor cross-section (mm²)	Outer diameter (mm)	m/ spool	Copper index (kg/km)	Weight (kg/km)	yellow-red	yellow-white	violet-white	orange-black	orange-white	red-black	red-white
1.5	2.8 - 3.4	150	14.4	22	4522311S	4522321S	4522371S	4522381S	4522391S	4522401S	4522421S
2.5	3,4 - 4,1	100	24	37					4522392S		4522422S

Conductor cross-section (mm²)	Outer diameter (mm)	m/spool	Copper index (kg/km)	Weight (kg/km)	white-blue	white-red
1.5	2.8 - 3.4	150	14.4	22	4522441S	4522461S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.
The outer diameters stated in the part number table are maximum values.

Similar products

- X05V-K with twin colour helix insulation refer to page 205

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 1011
- EASY STRIP stripping and cutting tool refer to page 1004
- PEW 8.87 crimping pliers refer to page 1016

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

Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Easy storage
- Increases the cost-effectiveness of the production process

Application range

- Factory wiring
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according IEC 60332-1-2
- Flame-retardant according to UL VW1/ CSA FT1
- Oil-resistant

Norm references / 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.
- Cable type certifications: <HAR> H05V-K acc. EN 50525-2-31, UL AWM styles 1007 & 1569 (by UL acc. UL standard UL 758, U.I. Lapp GmbH's UL AWM file number: E63634), CSA AWM I A/B (by CSA acc. CSA standard CSA C22.2 No. 210-05, CSA class 5851-01)

Product Make-up

- Fine-wire strand made of tinned-copper wires
- Special PVC-based core insulation

Technical data

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

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 cautions bending

Nominal voltage
HAR / IEC: U_0/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 (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	brown	black	grey
0.5	2.5	100	4.8	9	4180403	4180401	4180406
0.75	2.6	100	7.2	12	4180503	4180501	4180506
1	2.8	100	9.6	15	4180603	4180601	4180606

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	blue	green/yellow	orange
0.5	2.5	100		4.8	9	4180402	4180400	4180409
0.75	2.6	100		7.2	12	4180502	4180500	
1	2.8	100		9.6	15	4180602	4180600	4180609
1	2.8		2000	9.6	15		4180600K	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	dark blue	white	violet
0.5	2.5	100		4.8	9	4180414	4180405	
0.5	2.5		3000	4.8	9	4180414K		
0.75	2.6	100		7.2	12	4180514		4180507
0.75	2.6		2500	7.2	12	4180514K		
1	2.8	100		9.6	15	4180614	4180605	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	red
0.5	2.5	100	4.8	9	4180404
0.75	2.6	100	7.2	12	4180504
1	2.8	100	9.6	15	4180604

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Photographs are not to scale and do not represent detailed images of the respective products.
The outer diameters stated in the part number table are maximum values.

Similar products

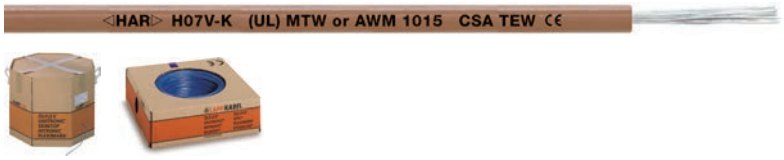
- H05V-K <HAR> refer to page 203
- MULTI-STANDARD SC 2.1 refer to page 212

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 1011
- EASY STRIP stripping and cutting tool refer to page 1004
- PEW 8.87 crimping pliers refer to page 1016
- FLEXIMARK® Collar Snap-on refer to page 985

MULTI-STANDARD SC 2.1

USA: UL-listed (MTW), Canada: CSA (TEW), Europe: <HAR> H07V-K (depending on cross s.), tin-coated strands



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”

Application range

- Factory wiring
- Field wiring
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according IEC 60332-1-2
- Flame-retardant according to UL VW1/ CSA FT1
- Oil-resistant

Norm references / 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.
- Cable type certifications: <HAR> H07V-K acc. EN 50525-2-31, UL AWM style 1015 (by UL acc. UL standard UL 758, U.I. Lapp GmbH’s UL AWM file number: E63634), (UL) MTW (by UL acc. UL standard UL 1063, U.I. Lapp GmbH’s (UL) MTW file number: E198296), CSA TEW (by CSA acc. CSA standard CSA C22.2 No. 127, CSA class 5835-01)

Product Make-up

- Fine-wire strand made of tinned-copper wires
- Special PVC-based core insulation

Info

- The all-rounder for many markets

Technical data

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

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: U_0/U: 450/750 V;
UL (AWM): U: 600 V;
UL (MTW): U: 600 V;
CSA (TEW): U: 600 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 (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black
0.5	2.7	100		4.8	11	4160103	4160101
0.5	2.7		3000	4.8	11		4160101K
0.75	2.9	100		7.2	14	4160203	4160201
0.75	2.9		2500	7.2	14	4160203K	4160201K
1	3.1	100		9.6	16	4160303	4160301
1	3.1		2000	9.6	16	4160303K	4160301K
1.5	3.4	100		14.4	22	4160403	4160401
1.5	3.4		1500	14.4	22	4160403K	4160401K
2.5	4	100		24	37	4160503	4160501
2.5	4		900	24	37		4160501K
4	4.6	100		38.4	49	4160603	4160601
4	4.6		600	38.4	49		4160601K
6	5.1	100		57.6	67	4160703	4160701
6	5.1		400	57.6	67		4160701K
10	6.8	100		96	120	4160803	4160801
16	9	100		153.6	185	4160903	4160901
25	10.2	100		240	260	4161003	4161001
35	11.7			336	360		4161101
50	13.9			480	535		4161201
70	16			672	735		4161301
95	18.2			912	930		4161401
120	19.8			1152	1160		4161501

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	grey	blue
0.5	2.7	100		4.8	11	4160106	4160102
0.5	2.7		3000	4.8	11	4160106K	4160102K
0.75	2.9	100		7.2	14	4160206	4160202
0.75	2.9		2500	7.2	14		4160202K
1	3.1	100		9.6	16	4160306	4160302
1	3.1		2000	9.6	16		4160302K
1.5	3.4	100		14.4	22	4160406	4160402
1.5	3.4		1500	14.4	22	4160406K	4160402K
2.5	4	100		24	37	4160506	4160502
2.5	4		900	24	37	4160506K	4160502K
4	4.6	100		38.4	49	4160606	4160602
6	5.1	100		57.6	67	4160706	4160702
6	5.1		400	57.6	67		4160702K
10	6.8	100		96	120	4160806	4160802
16	9	100		153.6	185	4160906	4160902
25	10.2	100		240	260	4161006	4161002
35	11.7			336	360		4161102
50	13.9			480	535		4161202
95	18.2			912	930		4161402
120	19.8			1152	1160		4161502

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	green/yellow	orange
0.5	2.7	100		4.8	11	4160100	4160109
0.5	2.7		3000	4.8	11		4160109K
0.75	2.9	100		7.2	14	4160200	4160209
0.75	2.9		2500	7.2	14		4160209K
1	3.1	100		9.6	16	4160300	4160309
1	3.1		2000	9.6	16	4160300K	4160309K
1.5	3.4	100		14.4	22	4160400	4160409
1.5	3.4		1500	14.4	22	4160400K	4160409K
2.5	4	100		24	37	4160500	4160509
2.5	4		900	24	37	4160500K	4160509K
4	4.6	100		38.4	49	4160600	4160609
4	4.6		600	38.4	49	4160600K	4160609K
6	5.1	100		57.6	67	4160700	4160709
6	5.1		400	57.6	67	4160700K	4160709K
10	6.8	100		96	120	4160800	4160809
16	9	100		153.6	185	4160900	4160909
25	10.2	100		240	260	4161000	4161009
35	11.7			336	360	4161100	
50	13.9			480	535	4161200	
70	16			672	735	4161300	
95	18.2			912	930	4161400	
120	19.8			1152	1160	4161500	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	dark blue	white
0.5	2.7	100		4.8	11	4160114	4160105
0.5	2.7		3000	4.8	11	4160114K	
0.75	2.9	100		7.2	14	4160214	4160205
0.75	2.9		2500	7.2	14	4160214K	
1	3.1	100		9.6	16	4160314	4160305
1	3.1		2000	9.6	16	4160314K	4160305K
1.5	3.4	100		14.4	22	4160414	4160405
1.5	3.4		1500	14.4	22	4160414K	4160405K
2.5	4	100		24	37	4160514	4160505
2.5	4		900	24	37	4160514K	4160505K
4	4.6	100		38.4	49	4160614	4160605
6	5.1	100		57.6	67	4160714	4160705
6	5.1		400	57.6	67	4160714K	
10	6.8	100		96	120	4160814	4160805
16	9	100		153.6	185	4160914	4160905

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	green	yellow
0.5	2.7	100		4.8	11	4160111	4160110
0.75	2.9	100		7.2	14		4160210
1	3.1	100		9.6	16	4160311	4160310
1.5	3.4	100		14.4	22	4160411	4160410
2.5	4	100		24	37	4160511	4160510
4	4.6	100		38.4	49	4160611	4160610
4	4.6		600	38.4	49		4160610K
6	5.1	100		57.6	67	4160711	4160710
10	6.8	100		96	120	4160811	4160810
16	9	100		153.6	185	4160911	4160910
25	10.2	100		240	260	4161011	4161010
35	11.7			336	360	4161111	
50	13.9			480	535	4161211	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	violet	red
0.5	2.7	100		4.8	11	4160107	4160104
0.5	2.7		3000	4.8	11		4160104K
0.75	2.9	100		7.2	14	4160207	4160204
1	3.1	100		9.6	16	4160307	4160304
1	3.1		2000	9.6	16		4160304K
1.5	3.4	100		14.4	22	4160407	4160404
1.5	3.4		1500	14.4	22		4160404K
2.5	4	100		24	37	4160507	4160504
2.5	4		900	24	37		4160504K
4	4.6	100		38.4	49		4160604
6	5.1	100		57.6	67		4160704
6	5.1		400	57.6	67		4160704K
10	6.8	100		96	120		4160804
16	9	100		153.6	185		4160904
25	10.2	100		240	260		4161004
35	11.7			336	360		4161104

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	blue/white	pink
0.5	2.7	100		4.8	11	4160126	
0.75	2.9	100		7.2	14	4160226	
0.75	2.9		2500	7.2	14	4160226K	
1	3.1	100		9.6	16	4160326	4160308
1	3.1		2000	9.6	16	4160326K	
1.5	3.4	100		14.4	22	4160426	4160408
1.5	3.4		1500	14.4	22	4160426K	
2.5	4	100		24	37	4160526	
4	4.6	100		38.4	49	4160626	
6	5.1	100		57.6	67	4160726	
10	6.8	100		96	120	4160826	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	white-blue
0.5	2.7		3000	4.8	11	4160144K
0.75	2.9	100		7.2	14	4160244
0.75	2.9		2500	7.2	14	4160244K
1	3.1	100		9.6	16	4160344
1	3.1		2000	9.6	16	4160344K
1.5	3.4	100		14.4	22	4160444
2.5	4	100		24	37	4160544
2.5	4		900	24	37	4160544K
4	4.6	100		38.4	49	4160644
6	5.1	100		57.6	67	4160744
10	6.8	100		96	120	4160844

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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
The outer diameters stated in the part number table are maximum values.

Similar products
- H07V-K <HAR> refer to page 207
- MULTI-STANDARD SC 2.2 refer to page 214

Accessories
- DIN-assorted boxes conductor end sleeves refer to page 1011
- Conductor end sleeves XL, insulated refer to page 1012
- PEW 8.87 crimping pliers refer to page 1016

MULTI-STANDARD SC 2.2

UL-listed (MTW), CSA (TEW), <HAR> H07V2-K: max. +90°C, UL (AWM): Umax = 1 kV, tinned-copper strands

Info
- Higher maximum conductor temperature - H07V2-K: +90 °C according to EN 50525-2-31
- 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"

Application range
- Factory wiring
- Field wiring
- Frequency converter power supply
- Internal wiring of devices and in control cabinets
- Protected installation in and on lighting equipments

Product features
- Flame-retardant according IEC 60332-1-2
- Flame-retardant according to UL VW1/ CSA FT1
- Oil-resistant

Norm references / 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.
- Cable type certifications: <HAR> H07V2-K acc. EN 50525-2-31, UL AWM style 10269 (by UL acc. UL standard UL 758, U.I. Lapp GmbH's UL AWM file number: E63634), (UL) MTW (by UL acc. UL standard UL 1063, U.I. Lapp GmbH's (UL) MTW file number: E198296), CSA TEW (by CSA acc. CSA standard CSA C22.2 No. 127, CSA class 5835-01)

Product Make-up
- Fine-wire strand made of tinned-copper wires
- Special PVC-based core insulation

Technical data

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

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: U_0/U: 450/750 V;
UL (AWM): U: 1000 V;
UL (MTW): U: 600 V;
CSA (TEW): U: 600 V

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 (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black	grey
0.5	2.7	100		4.8	10	4150103	4150101	
0.75	2.9	100		7.2	13		4150201	
1	3.1	100		9.6	16	4150303	4150301	
1	3.1		2000	9.6	16		4150301K	
1.5	3.4	100		14.4	22	4150403	4150401	4150406
2.5	4	100		24	37	4150503	4150501	4150506
2.5	4		900	24	37		4150501K	
4	4.6	100		38.4	49	4150603	4150601	
4	4.6		600	38.4	49		4150601K	
6	5.1	100		57.6	71		4150701	4150706
10	6.8	100		96	120		4150801	
16	9	100		153.6	185		4150901	
25	10.2	100		240	260		4151001	
35	11.7			336	360		4151101	
50	13.9			480	535		4151201	
70	16			672	735		4151301	
95	18.2			912	930		4151401	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	blue	green/yellow	orange
0.5	2.7	100	4.8	10	4150102		
0.75	2.9	100	7.2	13	4150202		
1	3.1	100	9.6	16	4150302		4150309
1.5	3.4	100	14.4	22	4150402	4150400	4150409
2.5	4	100	24	37	4150502	4150500	4150509
4	4.6	100	38.4	49	4150602	4150600	
6	5.1	100	57.6	71	4150702	4150700	
10	6.8	100	96	120	4150802	4150800	
16	9	100	153.6	185		4150900	
25	10.2	100	240	260		4151000	
35	11.7		336	360		4151100	

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	dark blue	white	yellow
0.5	2.7	100	4.8	10	4150114	4150105	
0.75	2.9	100	7.2	13	4150214	4150205	
1	3.1	100	9.6	16		4150305	
1.5	3.4	100	14.4	22	4150414	4150405	4150410
4	4.6	100	38.4	49	4150614	4150605	4150610

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	Copper index (kg/km)	Weight (kg/km)	red
0.5	2.7	100	4.8	10	4150104
0.75	2.9	100	7.2	13	4150204
1	3.1	100	9.6	16	4150304
1.5	3.4	100	14.4	22	4150404
2.5	4	100	24	37	4150504
4	4.6	100	38.4	49	4150604
6	5.1	100	57.6	71	4150704

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise drum
Photographs are not to scale and do not represent detailed images of the respective products.
Non-harmonsided, 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
The outer diameters stated in the part number table are maximum values.

Similar products

- MULTI-STANDARD SC 2.1 refer to page 212

Accessories

- DIN-assorted boxes conductor end sleeves refer to page 1011
- Conductor end sleeves XL, insulated refer to page 1012
- EASY STRIP stripping and cutting tool refer to page 1004
- PEW 8.87 crimping pliers refer to page 1016
- FLEXIMARK® Collar Snap-on refer to page 985

H05Z-K 90°C

Harmonised; halogen-free to protect human life, the environment and material assets

Benefits

- Protection of human life and the environment thanks to the avoidance of the formation of acid in case of fire
- Time-saving assembly

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
- For expanded ambient temperatures see ÖLFLEX® HEAT 125 SC

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 IEC 60332-1-2

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-3-41

Product Make-up

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free

Info

- Halogen-free and harmonised (HAR)
- For expanded ambient temperatures see ÖLFLEX® HEAT 125 SC

Technical data

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

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

Minimum bending radius
According to EN 50565-1
4 x outer diameter (OD) for normal use; 2 x OD for cautions bending

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V AC

Current rating
VDE 0298-4
EN 50565-1/ VDE 0298-565-1

Temperature range
During installation: -5°C bis +90°C
Fixed installation: -40°C bis +90°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue
0.5	2.1 - 2.6	100		4.8	9	4725031	4725011	4725061	4725021
0.5	2.1 - 2.6		3000	4.8	9	4725031K	4725011K	4725061K	4725021K
0.75	2.2 - 2.8	100		7.2	11	4725032	4725012	4725062	4725022
0.75	2.2 - 2.8		2500	7.2	11	4725032K	4725012K	4725062K	4725022K
1	2.4 - 2.9	100		9.6	14	4725033	4725013	4725063	4725023
1	2.4 - 2.9		2000	9.6	14	4725033K	4725013K	4725063K	4725023K

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	green/yellow	orange	dark blue	white
0.5	2.1 - 2.6	100		4.8	9	4725001	4725091	4725141	4725051
0.5	2.1 - 2.6		3000	4.8	9	4725001K	4725091K	4725141K	4725051K
0.75	2.2 - 2.8	100		7.2	11	4725002	4725092	4725142	4725052
0.75	2.2 - 2.8		2500	7.2	11	4725002K	4725092K	4725142K	4725052K
1	2.4 - 2.9	100		9.6	14	4725003	4725093	4725143	4725053
1	2.4 - 2.9		2000	9.6	14	4725003K	4725093K	4725143K	4725053K

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	green	yellow	violet	red
0.5	2.1 - 2.6	100		4.8	9	4725121	4725111	4725071	4725041
0.5	2.1 - 2.6		3000	4.8	9	4725121K	4725111K	4725071K	4725041K
0.75	2.2 - 2.8	100		7.2	11	4725122	4725112	4725072	4725042
0.75	2.2 - 2.8		2500	7.2	11	4725122K	4725112K	4725072K	4725042K
1	2.4 - 2.9	100		9.6	14	4725123	4725113	4725073	4725043
1	2.4 - 2.9		2000	9.6	14	4725123K	4725113K	4725073K	4725043K

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	blue/white	pink
0.5	2.1 - 2.6	100		4.8	9		4725081
0.5	2.1 - 2.6		3000	4.8	9		4725081K
0.75	2.2 - 2.8	100		7.2	11		4725082
0.75	2.2 - 2.8		2500	7.2	11		4725082K
1	2.4 - 2.9	100		9.6	14		4725083
1	2.4 - 2.9		2000	9.6	14	4725263K	4725083K

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise drum
Photographs are not to scale and do not represent detailed images of the respective products.
The outer diameters stated in the part number table are maximum values.

Similar products

- ÖLFLEX® HEAT 125 SC refer to page 189

H07Z-K 90°C

Harmonised; halogen-free to protect human life, the environment and material assets

Info

- Halogen-free and harmonised (HAR)
- For expanded ambient temperatures and higher conductor cross-sections see ÖLFLEX® HEAT 125 SC

Benefits

- Protection of human life and the environment thanks to the avoidance of the formation of acid in case of fire
- Time-saving assembly

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
- For expanded ambient temperatures and higher conductor cross-sections see ÖLFLEX® HEAT 125 SC

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 IEC 60332-1-2

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-3-41
- No cable type certified core insulation colours according to EN 50525-1/ VDE 0285-525-1: transparent, green (single colour), yellow (single colour), all double colours (except of green-yellow and yellow-green)

Product Make-up

- Fine-wire strand made of bare copper wires
- Core insulation: Halogen-free

Technical data

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

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

Minimum bending radius
According to EN 50565-1
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
U_0/U: 450/ 750 V

Test voltage
2500 V

Current rating
VDE 0298-4
EN 50565-1/ VDE 0298-565-1

Temperature range
During installation: -5°C bis +90°C
Fixed installation: -40°C bis +90°C

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue
1.5	2.8 - 3.5	100		14.4	20	4726031	4726011	4726061	4726021
1.5	2.8 - 3.5		1500	14.4	20	4726031K	4726011K	4726061K	4726021K
2.5	3.4 - 4.3	100		24	32	4726032	4726012	4726062	4726022
2.5	3.4 - 4.3		900	24	32	4726032K	4726012K	4726062K	4726022K
4	3.9 - 4.9	100		38.4	45	4726033	4726013	4726063	4726023
4	3.9 - 4.9		600	38.4	45	4726033K	4726013K	4726063K	4726023K
6	4.4 - 5.5	100		57.6	65	4726034	4726014	4726064	4726024
6	4.4 - 5.5		400	57.6	65	4726034K	4726014K	4726064K	4726024K
10	5.7 - 7.1	100		96	110	4726035	4726015	4726065	4726025
16	6.7 - 8.4	100		153.6	170	4726036	4726016	4726066	4726026
25	8.4 - 10.6	100		240	290	4726037	4726017	4726067	4726027
35	9.7 - 12.1			336	380	4726038	4726018	4726068	4726028
50	11.5 - 14.4			480	530	4726039	4726019	4726069	4726029
70	13.2 - 16.6			672	750	4727031	4727011	4727061	4727021
95	15.1 - 18.8			912	1000	4727032	4727012	4727062	4727022

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	green/yellow	orange	dark blue	white
1.5	2.8 - 3.5	100		14.4	20	4726001	4726091	4726141	4726051
1.5	2.8 - 3.5		1500	14.4	20	4726001K	4726091K	4726141K	4726051K
2.5	3.4 - 4.3	100		24	32	4726002	4726092	4726142	4726052
2.5	3.4 - 4.3		900	24	32	4726002K	4726092K	4726142K	4726052K
4	3.9 - 4.9	100		38.4	45	4726003	4726093	4726143	4726053
4	3.9 - 4.9		600	38.4	45	4726003K	4726093K	4726143K	4726053K
6	4.4 - 5.5	100		57.6	65	4726004	4726094	4726144	4726054
6	4.4 - 5.5		400	57.6	65	4726004K	4726094K	4726144K	4726054K
10	5.7 - 7.1	100		96	110	4726005	4726095	4726145	4726055
16	6.7 - 8.4	100		153.6	170	4726006	4726096	4726146	4726056
25	8.4 - 10.6	100		240	290	4726007	4726097	4726147	4726057
35	9.7 - 12.1			336	380	4726008	4726098	4726148	4726058
50	11.5 - 14.4			480	530	4726009	4726099	4726149	4726059
70	13.2 - 16.6			672	750	4727001	4727091	4727141	4727051
95	15.1 - 18.8			912	1000	4727002	4727092	4727142	4727052

Power and control cables

LAPP GROUP

Control Cabinet Single Cores • Halogen-free

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	green	yellow	violet	red
1.5	2.8 - 3.5	100		14.4	20	4726121	4726111	4726071	4726041
1.5	2.8 - 3.5		1500	14.4	20	4726121K	4726111K	4726071K	4726041K
2.5	3.4 - 4.3	100		24	32	4726122	4726112	4726072	4726042
2.5	3.4 - 4.3		900	24	32	4726122K	4726112K	4726072K	4726042K
4	3.9 - 4.9	100		38.4	45	4726123	4726113	4726073	4726043
4	3.9 - 4.9		600	38.4	45	4726123K	4726113K	4726073K	4726043K
6	4.4 - 5.5	100		57.6	65	4726124	4726114	4726074	4726044
6	4.4 - 5.5		400	57.6	65	4726124K	4726114K	4726074K	4726044K
10	5.7 - 7.1	100		96	110	4726125	4726115	4726075	4726045
16	6.7 - 8.4	100		153.6	170	4726126	4726116	4726076	4726046
25	8.4 - 10.6	100		240	290	4726127	4726117	4726077	4726047
35	9.7 - 12.1			336	380	4726128	4726118	4726078	4726048
50	11.5 - 14.4			480	530	4726129	4726119	4726079	4726049
70	13.2 - 16.6			672	750	4727121	4727111	4727071	4727041
95	15.1 - 18.8			912	1000	4727122	4727112	4727072	4727042

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	blue/white	pink
1.5	2.8 - 3.5	100		14.4	20		4726081
1.5	2.8 - 3.5		1500	14.4	20	4726261K	4726081K
2.5	3.4 - 4.3	100		24	32		4726082
2.5	3.4 - 4.3		900	24	32	4726262K	4726082K
4	3.9 - 4.9	100		38.4	45		4726083
4	3.9 - 4.9		600	38.4	45		4726083K
6	4.4 - 5.5	100		57.6	65		4726084
6	4.4 - 5.5		400	57.6	65		4726084K
10	5.7 - 7.1	100		96	110		4726085
16	6.7 - 8.4	100		153.6	170		4726086
25	8.4 - 10.6	100		240	290		4726087
35	9.7 - 12.1			336	380		4726088
50	11.5 - 14.4			480	530		4726089
70	13.2 - 16.6			672	750		4727081
95	15.1 - 18.8			912	1000		4727082

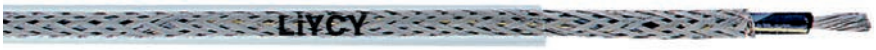
Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise 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
The outer diameters stated in the part number table are maximum values.

Similar products

- ÖLFLEX® HEAT 125 SC refer to page 189

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 IEC 60332-1-2
- The outer diameters stated in the part number table are maximum values

Norm references / Approvals

- Based on VDE 0812

Product Make-up

- Strands of tinned-copper wires
- Core insulation: Based on PVC
- Tinned-copper braiding
- Outer sheath: Based on PVC, transparent

Technical data

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

Peak operating voltage
350 V (not for power transmission)

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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
LiYCY				
4530101	0.14	2.8	7	13
4530102	0.25	3.3	9	18
4530103	0.5	3.6	15	20
4530104	0.75	3.9	18	31
4530105	1	4.7	25	35.9
4530106	1.5	5.1	30	39
4530107	2.5	6	35	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 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- SENSOR STRIP stripping tool refer to page 1003

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 IEC 60332-1-2
- Low cable capacitance, short signal transmission time
- The outer diameters stated in the part number table are maximum values

Norm references / Approvals

- Based on VDE 0812

Product Make-up

- Strands of tinned-copper wires
- Core insulation: PE
- Wrapped screening made from tinned copper wire
- Outer sheath: Based on PVC, transparent

Technical data

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

Peak operating voltage
350 V (not for power transmission)

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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Li2YCY				
4550115	0.14	2.4	7	10
4550116	0.25	2.6	9	15
4550117	0.5	3.2	15	19.5
4550118	0.75	3.4	18	28
4550119	1	3.8	25	30

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil
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-compliant

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 cable outer 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

Product features

- Flame retardant acc. to IEC 60332-1-2
- UV and weather-resistant according to ISO 4892-2
- Oil-resistant according to DIN EN 50290-2-22 (TM54)

Product Make-up

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC
- Nonwoven wrapping/plastic foil
- Tinned-copper braiding
- Outer sheath: Based on PVC

Technical data

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

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_0/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 (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® STATIC CY black				
4600023	16	10.3	177	275
4600024	25	12.7	267	396
4600025	35	14.3	384	542
4600026	50	16.9	537	752
4600027	70	18.7	763	1004
4600028	95	21.7	1012	1368
4600029	120	24.7	1264	1719

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: Coil ≤ 30 kg, 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 90 CP
- ÖLFLEX® FD 90 CY refer to page 124

Accessories

- KS 20 cable shears refer to page 999

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 IEC 60332-1-2

Norm references / Approvals

- VDE 0250 Part 204

Product Make-up

- Bare copper wire conductor
- Core insulation: Based on PVC
- Filling compound over the core assembly
- Outer sheath: Based on PVC

Technical data

Classification
ETIM 5.0 Class-ID: EC000043
ETIM 5.0 Class-Description: House wiring cable

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

Conductor stranding
Single or multi-wire
≥ 16 mm²: multi-wire

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NYM-J				
1600008	1 G 2.5	6.0	24	60
1600009	1 G 4	6.7	38	85
1600010	1 G 6	7.2	58	105
1600011	1 G 10	8.6	96	160
1600012	1 G 16	9.6	154	220
16000003	3 G 1.5	8.4	43	120
16000013	4 G 1.5	9.2	58	150
16000023	5 G 1.5	9.9	72	175
1600003	7 G 1.5	11.6	101	235
16000213	3 G 2.5	9.6	72	170
16000053	4 G 2.5	10.6	96	210
16000063	5 G 2.5	11.5	120	290
1600071	7 G 2.5	13.7	168	380
16010223	3 G 4	11.3	115	250
16000313	4 G 4	12.7	154	315
16000513	5 G 4	14.0	192	370
16010233	3 G 6	12.8	173	335
16000323	4 G 6	13.8	230	410
16000523	5 G 6	15.5	288	500
16000333	4 G 10	18.0	384	680
16000533	5 G 10	19.5	480	810
16000543	5 G 16	23.0	768	1200
16000353	4 G 25	26.0	960	1500
16000553	5 G 25	28.0	1200	1800

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- NYY-J, NYY-O refer to page 223
- (N)HXMH refer to page 222

Accessories

- STAR STRIP stripping tool refer to page 1000
- KS 20 cable shears refer to page 999

(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 IEC 60332-1-2
- No flame-propagation according to IEC 60332-3-24

Norm references / Approvals

- Based on VDE 0250 part 214

Product Make-up

- Bare copper wire conductor
- Core insulation: PE
- Filling compound over the core assembly
- Outer sheath: halogen-free polymer

Technical data

Classification
ETIM 5.0 Class-ID: EC000043
ETIM 5.0 Class-Description: House wiring cable

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

Conductor stranding
Single or multi-wire

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
(N)HXMH				
16020003	3 G 1.5	8.5	43	120
16020013	4 G 1.5	9.3	58	145
16020023	5 G 1.5	10.0	72	170
1602003	7 G 1.5	10.8	101	210
16020103	3 G 2.5	9.4	72	160
16020123	5 G 2.5	11.0	120	230

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- NYM-J refer to page 221

Accessories

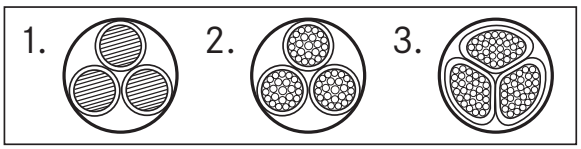
- STAR STRIP stripping tool refer to page 1000

NYY-J, NYY-O

Fixed installation, direct burial; PVC cable with different application areas

Info

- Standard cable for direct burial with different application areas
- 0,6/1,0 kV alternative to the PVC installation cable NYM



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 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

Norm references / Approvals

- HD 603/VDE 0276-603 (for 1 to 5 cores)
- HD 627/VDE 0276-627 (as from 7 cores)

Product Make-up

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”:
  r = round conductor form;
  s = sectorial conductor form;
  e = single-wire conductor;
  m = multi-wire conductor;
  Picture 1. = re
  Picture 2. = rm
  Picture 3. = sm
- Core insulation: Based on PVC
- Filling compound over the core assembly
- Outer sheath: Based on PVC

Technical data

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

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

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

Protective conductor
J = with GN-YE protective conductor
O = without protective conductor

Temperature range
During installation: -5°C to +50°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)
NYY-J				
1550030	1 x 25rm	13.0	240	380
1550038	1 x 35rm	14.0	336	447
1550032	1 x 50rm	15.0	480	650
1550033	1 x 70rm	17.0	672	864
1550037	1 x 185rm	25.0	1776	2080
15500013	3 x 1,5re	12.0	43	223
15500023	4 x 1,5re	13.0	58	256
15500033	5 x 1,5re	14.0	72	293
1550004	7 x 1,5re	15.0	101	360
1550005	10 x 1,5re	18.0	144	520
1550006	12 x 1,5re	19.0	173	560
1550084	14 x 1,5re	20.0	202	620
1550007	16 x 1,5re	21.0	230	680
1550008	19 x 1,5re	22.0	274	760
1550009	24 x 1,5re	24.0	346	900

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1550086	30 x 1,5re	26.0	432	1100
15500103	3 x 2,5re	13.0	72	272
15500113	4 x 2,5re	14.0	96	316
15500123	5 x 2,5re	15.0	120	323
1550013	7 x 2,5re	16.0	168	450
1550090	10 x 2,5re	20.0	240	630
1550091	12 x 2,5re	20.0	288	680
1550092	14 x 2,5re	21.0	336	790
1550094	19 x 2,5re	23.0	456	990
1550096	24 x 2,5re	26.0	576	1300
1550097	30 x 2,5re	28.0	720	1400
15500583	3 x 4re	15.0	115	373
15500203	4 x 4re	16.0	154	439
15500263	5 x 4re	17.0	192	510
15500593	3 x 6re	16.0	173	466
15500213	4 x 6re	17.0	230	547
15500273	5 x 6re	19.0	288	640
15500603	3 x 10re	18.0	288	629
15500223	4 x 10re	19.0	384	743
15500823	5 x 10re	21.0	480	899
15500613	3 x 16re	20.0	461	850
15500233	4 x 16re	22.0	614	1039
15500833	5 x 16re	23.0	768	1240
15500713	3 x 25rm/16re	25.0	874	1595
15500243	4 x 25rm	27.0	960	1620
15500153	3 x 35sm/16re	27.0	1162	1718
15500753	4 x 35sm	27.0	1344	1916
15500163	3 x 50sm/25rm	31.0	1680	2383
15500253	4 x 50sm	31.0	1920	2639
15500173	3 x 70sm/35sm	33.0	2352	3196
15500763	4 x 70sm	35.0	2688	3576
15500183	3 x 95sm/50sm	38.0	3216	4271
15500773	4 x 95sm	40.0	3648	4746
15500723	3 x 120sm/70sm	41.0	4128	5281
15500783	4 x 120sm	43.0	4608	5813
15500733	3 x 150sm/70sm	46.0	4992	6408
15500793	4 x 150sm	48.0	5760	7263
15500743	3 x 185sm/95sm	50.0	6240	7909
15500803	4 x 185sm	53.0	7104	8905
15500193	3 x 240sm/120sm	57.0	8064	10162
15500813	4 x 240sm	60.0	9216	11430
NYY-O				
1550205	1 x 10re	10.0	96	176
1550206	1 x 16re	11.0	154	239
1550207	1 x 25rm	13.0	240	380
1550208	1 x 35rm	14.0	336	447
1550209	1 x 50rm	15.0	480	650
1550210	1 x 70rm	17.0	672	864
1550211	1 x 95rm	19.0	912	1132
1550212	1 x 120rm	21.0	1152	1405
1550213	1 x 150rm	22.0	1440	1710
1550214	1 x 185rm	25.0	1776	2080
1550215	1 x 240rm	27.0	2304	2669
1550216	1 x 300rm	30.0	2880	3305
1550218	1 x 500rm	39.0	4800	5400
15502003	2 x 1,5re	11.0	29	210
15502193	2 x 2,5re	12.0	48	250
15502203	2 x 4re	14.0	77	360
15502213	2 x 6re	15.0	115	400
15502223	2 x 10re	17.0	192	500
15502533	4 x 16re	22.0	614	1039
15502543	4 x 25rm	27.0	960	1620
15502563	4 x 50sm	31.0	1920	2639
15502573	4 x 70sm	35.0	2688	3576
15502583	4 x 95sm	40.0	3648	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 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.

Similar products

- NYCY refer to page 228
- NYCWY refer to page 229
- NAYY-J refer to page 230

Accessories

- V 1311-A pressing pliers, hydraulic refer to page 1030
- STAR STRIP stripping tool refer to page 1000
- KT cable shears refer to page 999
- PVL 1300 pressing pliers battery-operated refer to page 1031

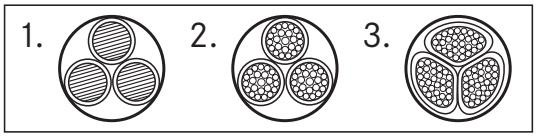
NEW

N2XH

Halogen-free power cable with rated voltage 0,6/1 kV for fixed installation

Info

- Halogen-free alternative to the PVC installation cable NYY-J, NYY-O



Application range

- For installation on or under the plaster
- Fixed installation indoor, in air or concrete
- For buildings or industrial plants with a high density of people or valuable assets
- No direct burial or installation in water
- Outdoor laying only when protected from direct sunlight and other external impacts

Product features

- Flame-retardant according IEC 60332-1-2
- No flame-propagation according to IEC 60332-3-24
- 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 61034-2

Norm references / Approvals

- HD 604/VDE 0276-604

Product Make-up

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”: r = round conductor form; s = sectorial conductor form; e = single-wire conductor; m = multi-wire conductor; Picture 1. = re Picture 2. = rm Picture 3. = sm
- Core insulation: PE
- Filling compound over the core assembly
- Outer sheath: halogen-free, thermoplastic polyolefin compound

Technical data

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

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

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

Protective conductor
J = with GN-YE protective conductor
O = without protective conductor

Temperature range
During installation: -5°C bis +90°C
Fixed installation: -40°C bis +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
N2XH-O				
1550556	1x1,5 RE	6.0	14	53
1550557	1x2,5 RE	6,5	24	90
3017600	1x4 RE	8,5	38	69
30017645	1x6 RE	6,5	58	90
30017646	1x10 RE	7,3	96	131
30017647	1x16 RM	8,6	154	197
30017648	1x25 RM	10,2	240	293
30017649	1x35 RM	11,3	336	389
30017650	1x50 RM	12,7	480	517
30017651	1x70 RM	14,6	672	717
30017652	1x95 RM	16,3	912	972
30017653	1x120 RM	18,3	1152	1215
3017601	1x150 RM	20.0	1440	1494
3017602	1x185 RM	22,6	1776	1855
3017603	1x240 RM	25,2	2304	2387
1112935	1x300 RM	27,9	2880	2971
30017654	2x1,5 RE	12.0	29	185
30017655	2x2,5 RE	13.0	48	220
30017656	2x4 RE	14.0	77	275
30017657	2x6 RE	15.0	115	335
30017658	2x10 RE	16.0	192	450
3017604	2x16 RM	18.0	307	625
3017605	2x25 RM	21.0	480	950
35002466	3x1,5 RM	13.0	43	179
1550581	3x2,5 RM	14.0	72	225
N2XH-J				
1112940	1x25 RM	10,2	240	293
1112941	1x35 RM	11,3	336	389
1112942	1x50 RM	12,7	480	517

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1112943	1x70 RM	14,6	672	717
1112944	1x95 RM	16,3	912	972
1112945	1x120 RM	18,3	1152	1215
1112946	1x150 RM	20.0	1440	1494
1112947	1x185 RM	22,6	1776	1855
1112948	1x240 RM	25,2	2304	2387
1112949	1x300 RM	27,9	2880	2971
30017659	3x1,5 RE	8,9	43	125
30017660	3x2,5 RE	9,8	72	163
30017661	3x4 RE	10,8	115	219
30017662	3x6 RE	11,8	173	289
30017663	3x10 RE	13,6	288	431
30017664	3x16 RM	16,7	461	638
30017665	3x25 RM	20,2	720	1015
30017666	3x35 RM	22,3		1231
30017667	3x50 RM	25,5	1440	1652
30017668	3x70 RM	30.0	2016	2455
30017669	3x95 RM	32.0	2736	3260
30017670	3x120 RM	35.0	3456	4000
3017606	3x150 RM	39.0	4320	5100
3017607	3x185 RM	44.0	5328	6160
3017608	3x240 RM	49.0	6912	8000
30017671	4x1,5 RE	9,7	58	147
30017672	4x2,5 RE	10,6	96	195
30017673	4x4 RE	11,7	154	266
30017674	4x6 RE	12,9	230	355
30017675	4x10 RE	15,2	384	547
30017676	4x16 RM	18,3	614	839
30017677	4x25 RM	22,6	960	1294
30017678	4x35 RM	25,8	1344	1605

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
30017679	4x50 RM	29,4	1920	2154
30017680	4x70 RM	34,4	2688	3047
30017681	4x95 RM	38,6	3648	4102
30017682	4x120 RM	42,4	4608	5062
3017609	4x150 RM	47,2	5760	6256
3017610	4x185 RM	52.0	7104	7751
3017611	4x240 RM	58,6	9216	10047
30017683	5x1,5 RE	10,5	72	174
30017684	5x2,5 RE	11,5	120	233
30017685	5x4 RE	12,7	192	319
30017686	5x6 RE	14,2	288	437
30017687	5x10 RE	17.0	480	682
30017688	5x16 RM	20,2	768	1036
30017689	5x25 RM	24,9	1200	1584
1550633	5x35 RM	28,4	1680	2155
30017690	7x1,5 RE	11,3	101	214
30017691	7x2,5 RE	12,4	168	291
30017692	7x4 RE	17.0	269	540
3017612	10x1,5 RE	14.0	144	299

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
3017613	10x2,5 RE	15,8	240	419
30017693	12x1,5 RE	14,7	173	342
30017694	12x2,5 RE	16,4	288	480
3017614	12x4 RE	21.0	461	805
3017615	14x1,5 RE	17.0	202	480
3017616	14x2,5 RE	19.0	336	635
3017617	19x1,5 RE	18.0	274	600
3017618	19x2,5 RE	21.0	456	810
3017619	24x1,5 RE	20,2	346	625
3017620	14x2,5 RE	24.0	576	990
3017621	30x1,5 RE	21,3	432	738
3017622	30x2,5 RE	23,7	720	1045
1550649	3x50/25 SM	28,5	1680	2100
1550650	3x70/35 SM	31,4	2352	2800
1550651	3x95/50 SM	34,9	3216	3750
1550652	3x120/70 SM	38.0	4128	4750
1550653	3x150/70 SM	43,3	4992	5750
1550654	3x185/95 SM	47,2	6240	7200
1550655	3x240/120 SM	53,4	8064	9300

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.

Similar products

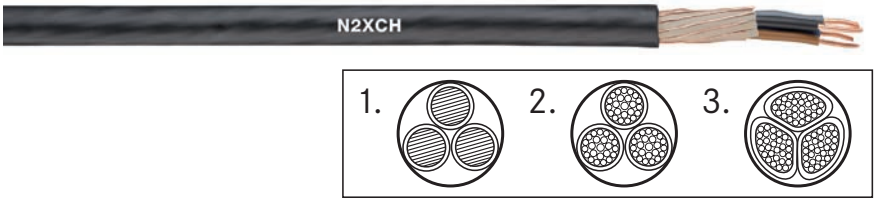
- NYY-J, NYY-O refer to page 223

N2XCH

Halogen-free power cable with concentric copper conductor

Info

- Halogen-free alternative to the PVC installation cable NYCY
- With concentric copper conductor



Benefits

- Concentric conductor above all as PE

Application range

- For installation on or under the plaster
- Fixed installation indoor, in air or concrete
- For buildings or industrial plants with a high density of people or valuable assets
- No direct burial or installation in water
- Outdoor laying only when protected from direct sunlight and other external impacts

Product features

- Flame-retardant according IEC 60332-1-2
- No flame-propagation according to IEC 60332-3-24
- 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 61034-2

Norm references / Approvals

- HD 604/VDE 0276-604

Product Make-up

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”:
  r = round conductor form;
  s = sectorial conductor form;
  e = single-wire conductor;
  m = multi-wire conductor;
  Picture 1. = re
  Picture 2. = rm
  Picture 3. = sm
- Core insulation: PE
- Filling compound over the core assembly
- Concentric conductor: bare copper wires
- Outer sheath: halogen-free, thermoplastic polyolefin compound

Technical data

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

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

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 bis +90°C
Fixed installation: -40°C bis +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
N2XCH				
30017695	2x1,5 RE/1,5	11,1	52	172
30017696	2x2,5 RE/2,5	11,9	80	213
30017697	2x4 RE/4	14.0	122	322
30017698	2x6 RE/6	15.0	183	410
30017699	2x10 RE/10	17.0	311	550
30017700	2x16 RM/16	19.0	490	790
30017701	3x1,5 RE/1,5	11,5	66	190
30017702	3x2,5 RE/2,5	12,3	103	239
30017703	3x4 RE/4	13,5	160	314
30017704	3x6 RE/6	14,9	242	410
30017705	3x10 RE/10	16,8	408	600
30017706	3x16 RM/16	19,9	643	896
30017707	3x25 RM/16	25,3	1001	1360
30017708	3x35 RM/16	29,2	1400	1795
30017709	3x50 RM/25	32.0	2003	2460
30017710	3x70 RM/35	36.0	2794	3080
30017711	3x95 RM/50	39.0	3790	4310
30017712	3x120 RM/70	42.0	4785	5233
30017713	3x150 RM/70	44.0	5100	5788
30017714	3x185 RM/95	48.0	6381	7150
30017715	3x240 RM/120	54.0	8240	9273
30017716	4x1,5 RE/1,5	12,2	81	217
30017717	4x2,5 RE/2,5	13,2	129	275
30017718	4x4 RE/4	14,5	202	365
30017719	4x6 RE/6	15,9	296	479

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
30017720	4x10 RE/10	18.0	504	709
30017721	4x16 RM/16	21,5	796	1068
30017722	4x25 RM/16	25,6	1142	1526
30017723	4x35 RM/16	26,9	1526	1814
30017724	4x50 RM/25	29,6	2203	2405
30017725	4x70 RM/35	34.0	3082	3378
30017726	4x95 RM/50	38,5	4208	4568
30017727	4x120 RM/70	42,7	5388	5773
30017728	4x150 RM/70	46,6	6540	6921
30017729	4x185 RM/95	51,8	8195	8866
30017732	4x240 RM/120	57,6	10546	11167
30017730	7x1,5 RE/1,5	15.0	133	380
30017731	7x2,5 RE/2,5	15.0	200	378
30017733	7x4 RE/4	18.0	315	599
30017734	7x6 RE/6	19.0	470	850
1550696	10x1,5 RE/2,5	17,2	177	420
1550697	10x2,5 RE/4	18,9	287	550
30017735	12x1,5 RE/2,5	17,2	205	437
30017736	12x2,5 RE/4	19.0	334	589
30017737	12x4 RE/6	23.0	528	920
1550701	16x1,5 RE/4	20.0	275	686
1550702	16x2,5 RE/6	20,9	450	805
30017738	24x1,5 RE/6	22,7	413	764
30017739	24x2,5 RE/10	26.0	695	1189
30017740	30x1,5 RE/6	23,9	499	880
3017741	30x2,5 RE/10	26,6	840	1238

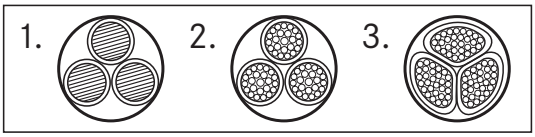
Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type 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.

Similar products

- NYCY refer to page 228
- NYCWY refer to page 229

NYCY

Fixed installation, direct burial; PVC cable with concentric, helical copper conductor and cross-conductive spiral



Info

- With concentric, helical copper 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 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

Norm references / 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

Product Make-up

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”:
  r = round conductor form;
  s = sectorial conductor form;
  e = single-wire conductor;
  m = multi-wire conductor;
  Picture 1. = re
  Picture 2. = rm
  Picture 3. = sm
- 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
- Outer sheath: Based on PVC

Technical data

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

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

Conductor stranding
Single or multi-wire

Minimum bending radius
Fixed installation: 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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NYCY				
15503003	2 x 1,5re/1,5	14.0	52	245
15503103	3 x 1,5re/1,5	14.0	66	280
15503203	4 x 1,5re/1,5	15.0	81	302
1550330	7 x 1,5re/2,5	17.0	133	450
1550332	12 x 1,5re/2,5	20.0	205	580
1550337	24 x 1,5re/6	26.0	413	1100
15503113	3 x 2,5re/2,5	15.0	104	316
15503213	4 x 2,5re/2,5	16.0	128	360
1550350	7 x 2,5re/2,5	18.0	200	530
1550355	16 x 2,5re/6	23.0	451	950
15503223	4 x 4re/4	18.0	200	485
15503233	4 x 6re/6	19.0	297	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 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.

Similar products

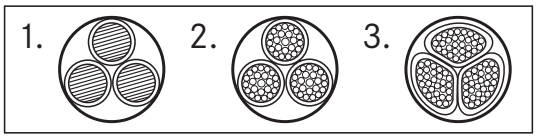
- NYY-J, NYY-O refer to page 223

NYCWY

Fixed installation, direct burial; PVC cable with concentric, wave-like copper conductor and cross-conductive spiral

Info

- With concentric, wave-like copper 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 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

Norm references / Approvals

- HD 603/VDE 0276-603 for NYCWY with 3 or 4 cores and the relevant concentric protective conductor

Product Make-up

- Bare copper wire conductor
- Abbreviations “re”, “rm”, “se”, “sm”:
  r = round conductor form;
  s = sectorial conductor form;
  e = single-wire conductor;
  m = multi-wire conductor;
  Picture 1. = re
  Picture 2. = rm
  Picture 3. = sm
- 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
- Outer sheath: Based on PVC

Technical data

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

Core identification code
Up to 5 cores: colour-coded according to VDE 0293-308, refer to Appendix T9

Conductor stranding
Single or multi-wire

Minimum bending radius
Fixed installation: 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 mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
NYCWY				
15505003	2 x 10re/10	19.0	312	610
15505263	3 x 10re/10	20.0	408	775
15505403	4 x 10re/10	21.0	504	897
15505273	3 x 16re/16	22.0	643	1066
15505413	4 x 16re/16	24.0	796	1250
15505283	3 x 25rm/25	26.0	1003	1584
15505423	4 x 25rm/16	28.0	1142	1822
15505303	3 x 35sm/35	26.0	1402	1710
15505433	4 x 35sm/16	29.0	1526	2146
15505163	3 x 50sm/50	30.0	2000	2368
15505443	4 x 50sm/25	33.0	2203	3031
15505453	4 x 70sm/35	38.0	3082	4056
15505143	3 x 95sm/50	38.0	3296	4256
15505323	3 x 95sm/95	39.0	3791	4600
15505463	4 x 95sm/50	43.0	4208	5364
15505153	3 x 120sm/70	41.0	4236	5314
15505473	4 x 120sm/70	46.0	5388	6748
15505353	3 x 150sm/70	45.0	5100	6344
15505483	4 x 150sm/70	51.0	6540	8159
15505173	3 x 185sm/95	50.0	6383	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 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.

Similar products

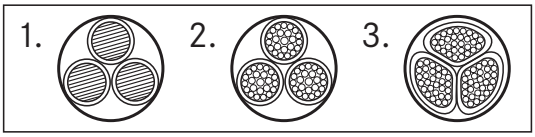
- NYY-J, NYY-O refer to page 223

Accessories

- V 1311-A pressing pliers, hydraulic refer to page 1030
- KT cable shears refer to page 999
- PVL 1300 pressing pliers battery-operated refer to page 1031

NAYY-J

Fixed installation, direct burial; PVC cable with solid aluminium conductors



Info

- With solid aluminium 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 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

Norm references / Approvals

- HD 603/VDE 0276-603

Product Make-up

- Aluminium conductor
- Abbreviations “re”, “se”:
  r = round conductor form;
  s = sectorial conductor form;
  e = single-wire conductor;
  Picture 1. = re
  Picture 2. = rm
  Picture 3. = sm
- Core insulation: Based on PVC
- Filling compound over the core assembly
- Outer sheath: Based on PVC

Technical data

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

Core identification code
According to VDE 0293-308 (table T9)

Conductor stranding
Single-wire

Minimum bending radius
Fixed installation: 12 x outer diameter

Nominal voltage
U_0/U: 0.6/1.0 kV

Test voltage
4000 V

Protective conductor
J = with GN-YE protective conductor

Temperature range
During installation: -5°C to +50°C
Fixed installation: -30°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Alu index (kg/km)	Weight (kg/km)
NAYY-J				
1552010	4 x 35re	29.0	406	1170
1552011	4 x 50se	30.0	580	1305
1552012	4 x 70se	35.0	812	1730
1552013	4 x 95se	39.0	1102	2205
1552014	4 x 120se	42.0	1392	2655
1552015	4 x 150se	46.0	1740	3150
1552016	4 x 185se	51.0	2146	3925
1552017	4 x 240se	60.0	2784	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 catalogue 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

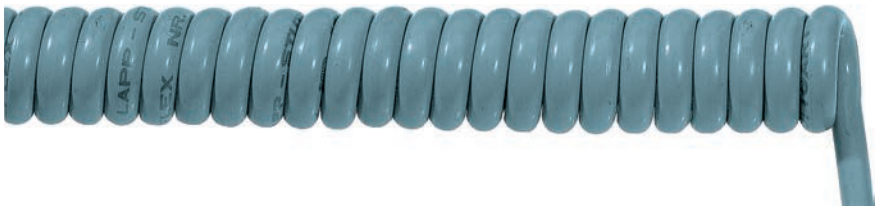
- NYY-J, NYY-O refer to page 223

Accessories

- V 1311-A pressing pliers, hydraulic refer to page 1030
- STAR STRIP stripping tool refer to page 1000
- PVL 1300 pressing pliers battery-operated refer to page 1031
- Cable lugs and other connectors made of aluminium or bi-metal Al-Cu are available upon request

ÖLFLEX® SPIRAL 400 P

PUR spiral cable with increased chemical resistance



Info

- High resistance to benzols, benzines and other substances listed in Appendix T1
- Good oil resistance
- High mechanical strength

Benefits

- High restoring forces and extension lengths up to 3 times the unextended spiral length
- 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

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, benzenes and other agents listed in the selection table in Appendix T1
- Abrasion and notch-resistant

Norm references / Approvals

- Core based on VDE 0812/0285
- Outer sheath based on VDE 0250/0285

Product Make-up

- 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

ETIM 5.0 Class-ID: EC000247
ETIM 5.0 Class-Description: Spiralized cable

Core identification code
Black with white numbers acc. to VDE 0293-1

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

Nominal voltage
U_0/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 mm² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)
ÖLFLEX® SPIRAL 400 P					
70002622	2 X 0.75	1500	500	5.4	19.5
70002623	2 X 0.75	3000	1000	5.4	19.5
70002624	2 X 0.75	4500	1500	5.4	19.5
70002625	2 X 0.75	6000	2000	5.4	19.5
70002628	3 G 0.75	1500	500	5.7	20
70002629	3 G 0.75	3000	1000	5.7	20
70002630	3 G 0.75	4500	1500	5.7	20
70002631	3 G 0.75	6000	2000	5.7	20
70002634	4 G 0.75	1500	500	6.2	21
70002635	4 G 0.75	3000	1000	6.2	21
70002636	4 G 0.75	4500	1500	6.2	21
70002637	4 G 0.75	6000	2000	6.2	21
70002640	5 G 0.75	1500	500	6.7	24
70002641	5 G 0.75	3000	1000	6.7	24
70002642	5 G 0.75	4500	1500	6.7	24
70002643	5 G 0.75	6000	2000	6.7	24
70002726	7 G 0.75	1500	500	7.3	27
70002727	7 G 0.75	3000	1000	7.3	27
70002728	7 G 0.75	4500	1500	7.3	27
70002729	7 G 0.75	6000	2000	7.3	27
70002731	12 G 0.75	1500	500	9.9	35
70002732	12 G 0.75	3000	1000	9.9	35
70002734	18 G 0.75	1500	500	11.7	40
70002735	18 G 0.75	3000	1000	11.7	40
70002646	2 X 1	1500	500	5.7	20
70002647	2 X 1	3000	1000	5.7	20
70002648	2 X 1	4500	1500	5.7	20
70002649	2 X 1	6000	2000	5.7	20
70002651	3 G 1	1500	500	6	21
70002652	3 G 1	3000	1000	6	21
70002653	3 G 1	4500	1500	6	21
70002654	3 G 1	6000	2000	6	21
70002656	4 G 1	1500	500	6.5	24
70002657	4 G 1	3000	1000	6.5	24
70002658	4 G 1	4500	1500	6.5	24
70002659	4 G 1	6000	2000	6.5	24
70002661	5 G 1	1500	500	7.1	25

Article number	Number of cores and mm² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)
70002662	5 G 1	3000	1000	7.1	25
70002663	5 G 1	4500	1500	7.1	25
70002664	5 G 1	6000	2000	7.1	25
70002666	7 G 1	1250	500	8	30
70002667	7 G 1	2500	1000	8	30
70002668	7 G 1	3750	1500	8	30
70002669	7 G 1	5000	2000	8	30
70002670	12 G 1	1500	500	10.5	37
70002671	12 G 1	3000	1000	10.5	37
70002672	18 G 1	1500	500	12.7	45
70002673	18 G 1	3000	1000	12.7	45
70002681	2 X 1.5	1500	500	6.3	23
70002682	2 X 1.5	3000	1000	6.3	23
70002683	2 X 1.5	4500	1500	6.3	23
70002684	2 X 1.5	6000	2000	6.3	23
70002687	3 G 1.5	1500	500	6.7	24
70002688	3 G 1.5	3000	1000	6.7	24
70002689	3 G 1.5	4500	1500	6.7	24
70002690	3 G 1.5	6000	2000	6.7	24
70002699	5 G 1.5	1250	500	8.1	30
70002700	5 G 1.5	2500	1000	8.1	30
70002701	5 G 1.5	3750	1500	8.1	30
70002702	5 G 1.5	5000	2000	8.1	30
70002705	7 G 1.5	1250	500	8.9	31
70002706	7 G 1.5	2500	1000	8.9	31
70002707	7 G 1.5	3750	1500	8.9	31
70002708	7 G 1.5	5000	2000	8.9	31
70002709	12 G 1.5	1500	500	12	46
70002710	12 G 1.5	3000	1000	12	46
70002711	18 G 1.5	1500	500	13.4	52
70002712	18 G 1.5	3000	1000	13.4	52
70002716	3 G 2.5	1250	500	8.1	28.5
70002717	3 G 2.5	2500	1000	8.1	28.5
70002718	3 G 2.5	3750	1500	8.1	28.5
70002719	3 G 2.5	5000	2000	8.1	28.5
70002721	5 G 2.5	1250	500	10	37
70002722	5 G 2.5	2500	1000	10	37
70002723	5 G 2.5	3750	1500	10	37
70002724	5 G 2.5	5000	2000	10	37

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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 244

Accessories

- SKINTOP® CLICK System

SPIRAL H07BQ-F BLACK

Black, robust PUR spiral cable with high recoiling forces

Info

- Heavy construction type
- Outer sheath: PUR, with high recoiling forces
- Voltage rating 450/750 V

Benefits

- Good cost-benefit ratio
- 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 application range

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
- For indoor and outdoor use

Product features

- Black, robust outer PUR sheath
- High tensile strength and abrasion-resistance
- High restoring forces
- High resistance to oil, low temperatures, microbes and hydrolysis

Norm references / Approvals

- Based on EN 50525-2-21 H07BQ-F
- The spiralling modifies the properties of the <HAR> certified H07BQ-F cable (sold by the metre) 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 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 logical consequence of the spiralling processing steps.

Product Make-up

- Tinned stranded copper wire of braided conductor class 5 according to IEC 60228/VDE 0295
- Core insulation: EI6 rubber according to EN 50525-1 & 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 EN 50525-2-21; 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

ETIM 5.0 Class-ID: EC000247
ETIM 5.0 Class-Description: Spiralized cable

Core identification code
Coloured according to VDE 0293-308 (HD 308)

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 mm² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)
SPIRAL H07BQ-F BLACK					
70002750	3 G 1.5	1500	500	9	31
70002751	3 G 1.5	3000	1000	9	31
70002752	3 G 1.5	4500	1500	9	31
70002753	3 G 1.5	6000	2000	9	31
70002754	4 G 1.5	1500	500	10	38
70002755	4 G 1.5	3000	1000	10	38
70002756	4 G 1.5	4500	1500	10	38
70002757	4 G 1.5	6000	2000	10	38
70002758	5 G 1.5	1500	500	11	40
70002759	5 G 1.5	3000	1000	11	40
70002760	5 G 1.5	4500	1500	11	40
70002761	5 G 1.5	6000	2000	11	40

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/ 100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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 241
- ÖLFLEX® SPIRAL 540 P refer to page 244

Accessories

- SKINTOP® CLICK System
- SKINTOP® BS refer to page 790
- SKINTOP® BS-M refer to page 719
- SKINTOP® BT refer to page 791
- SKINTOP® CLICK BS refer to page 720

ÖLFLEX® SPIRAL 540 P

Robust, halogen-free PUR spiral cable with high restoring forces

Info

- High restoring forces
- Halogen-free
- Voltage class from 1.5 mm² 450/750 V

Benefits

- Extension lengths of up to 3.5 times the unextended spiral length, high recoiling forces
- The signal colour of the outer sheath increases safety and visual perception
- 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

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
- Flexible down to -30 °C

Product Make-up

- 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

ETIM 5.0 Class-ID: EC000247
ETIM 5.0 Class-Description: Spiralized cable

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

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)
U_0/U: 300/500 V					
73220107	2 X 0.75	1000	300	6.6	23
73220108	2 X 0.75	2000	600	6.6	23
73220109	2 X 0.75	3500	1000	6.6	23
73220110	2 X 0.75	5000	1500	6.6	23
73220111	3 G 0.75	1000	300	7	24
73220112	3 G 0.75	2000	600	7	24
73220113	3 G 0.75	3500	1000	7	24
73220114	3 G 0.75	5000	1500	7	24
71220115	4 G 0.75	1000	300	7.6	29
71220116	4 G 0.75	2000	600	7.6	29
71220117	4 G 0.75	3500	1000	7.6	29
71220118	4 G 0.75	5000	1500	7.6	29
71220119	5 G 0.75	1000	300	8.5	31
71220120	5 G 0.75	2000	600	8.5	31
71220121	5 G 0.75	3500	1000	8.5	31
71220122	5 G 0.75	5000	1500	8.5	31
73220123	2 X 1	1000	300	7	24
73220124	2 X 1	2000	600	7	24
73220125	2 X 1	3500	1000	7	24
73220126	2 X 1	5000	1500	7	24
73220127	3 G 1	1000	300	7.4	29
73220128	3 G 1	2000	600	7.4	29
73220129	3 G 1	3500	1000	7.4	29
73220130	3 G 1	5000	1500	7.4	29
71220131	4 G 1	1000	300	8.2	30
71220132	4 G 1	2000	600	8.2	30
71220133	4 G 1	3500	1000	8.2	30
71220134	4 G 1	5000	1500	8.2	30
71220135	5 G 1	1000	300	9	32
71220136	5 G 1	2000	600	9	32
71220137	5 G 1	3500	1000	9	32
71220138	5 G 1	5000	1500	9	32
73220139	7 G 1	1000	350	10.9	40
73220140	7 G 1	2000	700	10.9	40
73220141	7 G 1	3500	1200	10.9	40
73220142	7 G 1	5000	1700	10.9	40

Article number	Number of cores and mm² per conductor	Spiral length, extended (mm)	Spiral length, unextended (mm)	Cable diameter (mm)	Spiral outer diameter (mm)
U_0/U: 450/750 V					
73220143	2 X 1.5	1000	300	8.4	31
73220144	2 X 1.5	2000	600	8.4	31
73220145	2 X 1.5	3500	1000	8.4	31
73220146	2 X 1.5	5000	1500	8.4	31
73220147	3 G 1.5	1000	300	8.9	32
73220148	3 G 1.5	2000	600	8.9	32
73220149	3 G 1.5	3500	1000	8.9	32
73220150	3 G 1.5	5000	1500	8.9	32
71220151	5 G 1.5	1000	350	10.9	40
71220152	5 G 1.5	2000	700	10.9	40
71220153	5 G 1.5	3500	1200	10.9	40
71220154	5 G 1.5	5000	1700	10.9	40
73220155	7 G 1.5	1000	350	13.5	52
73220156	7 G 1.5	2000	700	13.5	52
73220157	7 G 1.5	3500	1200	13.5	52
73220158	7 G 1.5	5000	1700	13.5	52
73220159	3 G 2.5	1000	350	10.6	40
73220160	3 G 2.5	2000	700	10.6	40
73220161	3 G 2.5	3500	1200	10.6	40
73220162	3 G 2.5	5000	1700	10.6	40
71220163	5 G 2.5	1000	350	13.4	51
71220164	5 G 2.5	2000	700	13.4	51
71220165	5 G 2.5	3500	1200	13.4	51
71220166	5 G 2.5	5000	1700	13.4	51

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Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
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 241
- ÖLFLEX® SPIRAL 540 P with angular, isolated ground plug refer to page 246

Accessories

- SKINTOP® CLICK System

UNITRONIC® SPIRAL

Spiral cable with outer PUR sheath and overall shielding for exact impulse transmission

Info

- Secure against electrical interferences
- PUR outer sheath

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

Product Make-up

- Strands of bare copper wires
- Core insulation: Based on PVC
- Screening: wrapped with braided copper wires
- Outer sheath: PUR compound
- 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

ETIM 5.0 Class-ID: EC000247
ETIM 5.0 Class-Description: Spiralized cable

Core identification code
DIN 47100

Peak operating voltage
250 V (not for power transmission)

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6

Test voltage
1200 V

Temperature range
Flexing: -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)	Pieces / PU
UNITRONIC® SPIRAL						
73220200	2 x 0.14	400	100	4.1	15	5
73220201	2 x 0.14	800	200	4.1	15	5
73220202	2 x 0.14	1200	300	4.1	15	5
73220203	2 x 0.14	1600	400	4.1	15	5
73220204	2 x 0.14	2000	500	4.1	15	5
73220205	3 x 0.14	400	100	4.3	18	5
73220206	3 x 0.14	800	200	4.3	18	5
73220207	3 x 0.14	1200	300	4.3	18	5
73220208	3 x 0.14	1600	400	4.3	18	5
73220209	3 x 0.14	2000	500	4.3	18	5
73220210	4 x 0.14	400	100	4.5	19	5
73220211	4 x 0.14	800	200	4.5	19	5
73220212	4 x 0.14	1200	300	4.5	19	5
73220213	4 x 0.14	1600	400	4.5	19	5
73220214	4 x 0.14	2000	500	4.5	19	5
73220215	5 x 0.14	400	100	4.8	20	5
73220216	5 x 0.14	800	200	4.8	20	5
73220217	5 x 0.14	1200	300	4.8	20	5
73220218	5 x 0.14	1600	400	4.8	20	5
73220219	5 x 0.14	2000	500	4.8	20	5
73220220	6 x 0.14	400	100	5.5	21	5
73220221	6 x 0.14	800	200	5.5	21	5
73220222	6 x 0.14	1200	300	5.5	21	5
73220223	6 x 0.14	1600	400	5.5	21	5
73220224	6 x 0.14	2000	500	5.5	21	5
73220230	12 x 0.14	400	100	7.2	27	1
73220231	12 x 0.14	800	200	7.2	27	1
73220232	12 x 0.14	1200	300	7.2	27	1
73220233	12 x 0.14	1600	400	7.2	27	1
73220234	12 x 0.14	2000	500	7.2	27	1
73220235	18 x 0.14	400	100	8	29	1
73220236	18 x 0.14	800	200	8	29	1
73220237	18 x 0.14	1200	300	8	29	1
73220238	18 x 0.14	1600	400	8	29	1
73220239	18 x 0.14	2000	500	8	29	1

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Versions without the mandatory LAPP designation, but with other solid lengths, end lengths and end forms available on request

Accessories

- SKINTOP® CLICK System