


U.I. Lapp GmbH	<b>PRODUCT INFORMATION</b>	
	<b>ÖLFLEX® CLASSIC 110</b>	04.04.2014

VDE-registered oil-resistant PVC control cable for a wide range of applications  
Wide choice of standardized lengths and individual cuts  
Very broad range, items with up to 100 conductors



Good chemical resistance



Oil-resistant



Power chain



Torsion-resistant

### Info

VDE certificate of conformity with factory surveillance  
More than 140 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 2.5mm<sup>2</sup> and 2 to 7 conductors


### Design

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

### Norm references / Approvals

VDE reg. no. 7030 for the following sizes:  
up to 2.5 mm<sup>2</sup>: 2 - 65 cores  
from 4 mm<sup>2</sup>: 2 - 7 cores  
from 25 mm<sup>2</sup>: 2 - 5 cores

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### 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)

### Remark

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges. Packaging size: coil ≤ 30 kg or ≤ 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.

### Technical Data

Core identification code:	Black with white numbers acc. to VDE 0293-1
Classification:	ETIM 5.0 Class-ID: EC000104 ETIM 5.0 Class-Description: Control cable
Specific insulation resistance:	> 20 GOhm x cm
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 <sub>0</sub> /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

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Part number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
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1119752	2 X0,5	4,8	9.6	35
1119003	3 G0,5	5,1	14.4	42
1119753	3 X0,5	5,1	14.4	42
1119004	4 G0,5	5,7	19.2	54
1119754	4 X0,5	5,7	19.2	54
1119005	5 G0,5	6,2	24.0	63
1119755	5 X0,5	6,2	24.0	63
1119007	7 G0,5	6,7	33.6	81
1119757	7 X0,5	6,7	33.6	81
1119010	10 G0,5	8,6	48.0	116
1119012	12 G0,5	8,9	58.0	131
1119014	14 G0,5	9,5	67.0	153
1119018	18 G0,5	10,5	86.4	188
1119021	21 G0,5	11,7	101.0	221
1119025	25 G0,5	12,4	120.0	261
1119030	30 G0,5	13,3	144.0	304
1119035	35 G0,5	14,5	168.0	356
1119040	40 G0,5	15,4	192.0	400
1119052	52 G0,5	17,3	250.0	517
1119061	61 G0,5	18,5	293.0	603
1119065	65 G0,5	19,6	312.0	644
1119080	80 G0,5	21,1	384.0	780
1119100	100 G0,5	23,6	480.0	975
1119802	2 X0,75	5,4	14.4	45
1119103	3 G0,75	5,7	21.6	55
1119803	3 X0,75	5,7	21.6	55
1119104	4 G0,75	6,2	28.8	66
1119804	4 X0,75	6,2	28.8	66
1119105	5 G0,75	6,7	36.0	79
1119805	5 X0,75	6,7	36.0	79
1119107	7 G0,75	7,3	50.0	101
1119807	7 X0,75	7,3	50.0	101

Part number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1119109	9 G0,75	9,4	65.0	137
1119110	10 G0,75	9,6	72.0	150
1119112	12 G0,75	9,9	86.0	171
1119812	12 X0,75	9,9	86.0	171
1119115	15 G0,75	10,9	108.0	209
1119117	15 X0,75	10,9	108.0	209
1119116	16 G0,75	11,1	115.2	220
1119118	18 G0,75	11,7	130.0	244
1119121	21 G0,75	13.0	151.0	286
1119125	25 G0,75	13,8	180.0	337
1119126	26 G0,75	14,2	187.2	350
1119134	34 G0,75	15,9	245.0	448
1119141	41 G0,75	17,4	296.0	538
1119150	50 G0,75	19,2	360.0	648
1119151	51 G0,75	19,2	367.0	646
1119161	61 G0,75	20,5	439.0	779
1119165	65 G0,75	21,8	468.0	832
1119180	80 G0,75	23,6	576.0	1019
1119200	100 G0,75	26,4	718.0	1271
1119852	2 X1,0	5,7	19.2	53
1119203	3 G1,0	6.0	28.8	65
1119853	3 X1,0	6.0	28.8	65
1119204	4 G1,0	6,5	38.4	79
1119854	4 X1,0	6,5	38.4	79
1119205	5 G1,0	7,1	48.0	94
1119855	5 X1,0	7,1	48.0	94
1119206	6 G1,0	8.0	58.0	113
1119207	7 G1,0	8.0	67.0	126
1119857	7 X1,0	8.0	67.0	126
1119208	8 G1,0	9,5	77.0	149
1119209	9 G1,0	10.0	86.0	164
1119210	10 G1,0	10,2	96.0	180
1119212	12 G1,0	10,5	115.0	205

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1119862	12 X1,0	10,5	115.0	205
1119214	14 G1,0	11,2	134.0	238
1119216	16 G1,0	11,8	153.6	266
1119218	18 G1,0	12,7	173.0	320
1119868	18 X1,0	12,7	173.0	320
1119220	20 G1,0	13,4	192.0	330
1119870	20 X1,0	13,4	192.0	330
1119225	25 G1,0	14,7	240.0	408
1119226	26 G1,0	15,1	249.0	424
1119234	34 G1,0	17,1	326.0	551
1119236	36 G1,0	17,4	346.0	578
1119241	41 G1,0	18,8	394.0	661
1119250	50 G1,0	20,6	480.0	797
1119256	56 G1,0	21,4	538.0	888
1119261	61 G1,0	22,1	586.0	958
1119265	65 G1,0	23,6	624.0	1033
1119280	80 G1,0	25,3	768.0	1251
1119300	100 G1,0	28,3	960.0	1560
1119902	2 X1,5	6,3	29.0	68
1119303	3 G1,5	6,7	43.0	84
1119903	3 X1,5	6,7	43.0	84
1119304	4 G1,5	7,2	58.0	104
1119904	4 X1,5	7,2	58.0	104
1119305	5 G1,5	8,1	72.0	128
1119905	5 X1,5	8,1	72.0	128
1119306	6 G1,5	8,4	86.4	157
1119307	7 G1,5	8,9	101.0	166
1119907	7 X1,5	8,9	101.0	166
1119308	8 G1,5	10,6	115.0	210
1119313	8 X1,5	10,6	116.0	210
1119309	9 G1,5	11,4	130.0	221
1119310	10 G1,5	11,6	143.0	243
1119311	11 G1,5	11,6	158.0	258

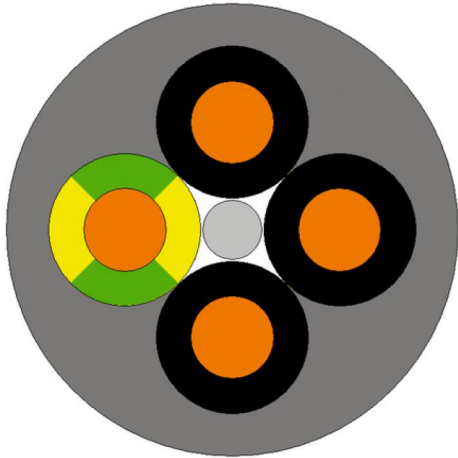
Part number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
1119312	12 G1,5	12,0	173.0	279
1119912	12 X1,5	12,0	173.0	279
1119314	14 G1,5	12,7	202.0	323
1119316	16 G1,5	13,4	230.4	361
1119318	18 G1,5	14,4	259.0	407
1119321	21 G1,5	15,7	302.0	469
1119325	25 G1,5	16,9	360.0	560
1119326	26 G1,5	17,3	374.4	582
1119332	32 G1,5	18,7	461.0	704
1119334	34 G1,5	19,4	490.0	746
1119341	41 G1,5	21,3	591.0	895
1119350	50 G1,5	23,5	720.0	1089
1119361	61 G1,5	25,2	878.0	1309
1119365	65 G1,5	26,7	936.0	1398
1119952	2 X2,5	7,5	48.0	101
1119403	3 G2,5	8,1	72.0	132
1119404	4 G2,5	8,9	96.0	163
1119405	5 G2,5	10,0	120.0	200
1119407	7 G2,5	11,1	168.0	267
1119412	12 G2,5	14,8	288.0	445
1119414	14 G2,5	15,8	336.0	515
1119418	18 G2,5	17,8	432.0	648
1119425	25 G2,5	20,8	600.0	890
1119434	34 G2,5	24,4	816.0	1208
1119450	50 G2,5	29,4	1200.0	1754
1119503	3 G4	9,9	115.0	201
1119504	4 G4	10,8	154.0	249
1119505	5 G4	12,1	192.0	294
1119507	7 G4	13,4	269.0	407
1119511	11 G4	17,6	422.0	634
1119512	12 G4	18,1	461.0	660

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1119603	3 G6	11,7	172.8	289
1119604	4 G6	13.0	230.0	365
1119605	5 G6	14,5	288.0	447
1119607	7 G6	16.0	403.0	600
1119613	3 G10	14,6	288.0	466
1119614	4 G10	16,2	384.0	590
1119615	5 G10	18,1	480.0	722
1119617	7 G10	20.0	672.0	968
1119624	4 G16	18,8	614.0	1087
1119625	5 G16	21,2	768.0	1370
1119627	7 G16	23,4	1075.0	1779
1119634	4 G25	23,5	960.0	1582
1119635	5 G25	26,4	1200.0	1998
1119636	7 G25	29,1	1680.0	2825
1119644	4 G35	26,4	1344.0	2106
1119645	5 G35	29,6	1680.0	2635

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