



HELUKABEL LiY-CY CE

Technical data

- Special PVC data screened cables, adapted to DIN VDE 0245, 0812
- **Temperature range**
 - flexing -5°C to +80°C
 - fixed installation -40°C to +80°C
- **Nominal voltage**

0,14 mm ² =	350 V
≥ 0,25 mm ² =	500 V
- **Test voltage**

core/core	1200 V
core/screen	800 V
- **Insulation resistance**

min. 200 MOhm x km	
conductor cross-section (mm ²)	0,14 ≥ 0,25
- **Capacitance** (approx.-value) at 800 Hz (pF/m)

core/core	120	150
core/screen	240	270
- **Load (A)** According to different cross-sections, see table Technical Information
- **Inductance** approx. 0,65 mH/km
- **Impedance** approx. 78 Ohm
- **Coupling resistance** ≤ 250 Ohm/km
- **Minimum bending radius** 10 x cable ∅
- **Radiation resistance** up to 80 x 10⁶ cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper, fine wire conductors for ≥ 0,5 mm² to DIN VDE 0295 cl. 5 and IEC 60228 cl. 5, conductor make-up for 0,14 mm² = 18x0,1 mm
0,25 mm² = 14x0,15 mm
0,34 mm² = 7x0,25 mm
- Special PVC core insulation TI2, to DIN VDE 0281 part 1
- Cores stranded in layers with optimal lay-length
- Colour coded to DIN 47100, but without colour repetition, see page T 46
- Core wrapping with foil
- Drain-wire, tinned
- Tinned, copper braided screen, approx. 85% coverage
- Special PVC outer sheath TM2, to DIN VDE 0281 part 1 outer sheath silver grey RAL 7001
- Extensively oil resistant
- Chemical Resistance – see table Technical Informations
- PVC self-extinguishing and flame retardant, test method B according to DIN VDE 0472 part 804 and IEC 60332-1

Application

These screened cables are used for flexible use with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, wherever the construction requirements call for a minimum outer diameter, TRONIC is the suitable cable to use. This applies especially to such areas as tool making and machine industries as well as electronic, computer, measurement and control sectors.

The extremely small outer diameter make suitable for miniature plugs etc.

*** EMC** = Electromagnetic compatibility
Note To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

***) Note**
 AWG sizes are approximate equivalent values. The actual cross-section is in mm² – see page T 15.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm ²	Outer ∅ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no. *)
20139	1 x 0,14**	3,2	6,1	16	26
20001	2 x 0,14	3,7	12,0	20	26
20002	3 x 0,14	3,8	13,0	27	26
20003	4 x 0,14	4,1	14,5	32	26
20004	5 x 0,14	4,6	15,5	37	26
20005	6 x 0,14	4,9	18,2	42	26
20006	7 x 0,14	4,9	19,0	48	26
20007	8 x 0,14	5,3	21,3	55	26
20008	10 x 0,14	6,0	28,7	65	26
20009	12 x 0,14	6,2	30,5	77	26
20010	14 x 0,14	6,6	32,0	79	26
20011	16 x 0,14	6,9	43,2	89	26
20012	18 x 0,14	7,1	51,0	103	26
20013	20 x 0,14	7,6	55,0	116	26
20014	21 x 0,14	7,6	56,0	120	26
20015	24 x 0,14	8,0	62,0	131	26
20091	25 x 0,14	8,1	61,0	136	26
20016	27 x 0,14	8,6	65,0	142	26
20017	30 x 0,14	8,9	69,0	157	26
20018	32 x 0,14	9,1	76,0	163	26
20019	36 x 0,14	9,7	83,0	182	26
20020	40 x 0,14	10,2	88,0	209	26
20021	42 x 0,14	10,7	94,0	217	26
20022	44 x 0,14	11,1	111,0	226	26
20023	48 x 0,14	11,1	115,0	240	26
20024	52 x 0,14	11,4	124,0	270	26
20025	56 x 0,14	11,8	132,0	320	26
20026	61 x 0,14	12,2	146,0	370	26
20027	80 x 0,14	19,0	226,0	510	26
20028	100 x 0,14	23,0	267,0	580	26

Part No.	No. cores x cross-sec. mm ²	Outer ∅ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no. *)
20084	1 x 0,25**	2,9	7,2	27	24
20029	2 x 0,25	4,3	15,8	31	24
20030	3 x 0,25	4,5	18,6	36	24
20031	4 x 0,25	4,9	22,0	40	24
20032	5 x 0,25	5,3	26,5	51	24
20083	6 x 0,25	5,8	32,4	58	24
20033	7 x 0,25	5,9	35,0	64	24
20034	8 x 0,25	6,3	42,1	82	24
20035	10 x 0,25	7,0	49,9	85	24
20036	12 x 0,25	7,3	58,0	90	24
20037	14 x 0,25	7,8	62,0	144	24
20038	16 x 0,25	8,2	67,0	110	24
20039	18 x 0,25	8,6	78,0	142	24
20086	19 x 0,25	8,7	79,0	146	24
20040	20 x 0,25	9,1	88,0	152	24
20041	21 x 0,25	9,1	91,0	150	24
20042	24 x 0,25	10,2	96,0	163	24
20092	25 x 0,25	10,3	99,0	169	24
20043	27 x 0,25	10,5	122,0	176	24
20044	30 x 0,25	10,8	132,0	189	24
20045	32 x 0,25	11,0	138,0	204	24
20046	36 x 0,25	11,7	146,0	219	24
20087	37 x 0,25	11,7	152,0	230	24
20047	40 x 0,25	12,1	157,0	247	24
20048	42 x 0,25	12,7	160,0	269	24
20049	44 x 0,25	13,1	164,0	292	24
20050	48 x 0,25	13,3	164,0	317	24
20051	52 x 0,25	14,0	175,0	330	24
20052	56 x 0,25	14,4	189,0	343	24
20053	61 x 0,25	14,8	204,0	365	24
20054	80 x 0,25	25,5	387,0	480	24
20055	100 x 0,25	28,0	505,0	605	24

Continuation ▶

HELUKABEL®-TRONIC-CY is also available in paired version (e. g. HELUKABEL®-PAAR-TRONIC-CY 16 x 2 x 0,14 mm²). PVC cables will be changed to lead free PVC successively.

** Note: for 1 core cable screen of helically wound

TRONIC-CY (LiY-CY) EMC*-preferred type flexible, colour coded to DIN 47100, screened



CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm ²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.¹)	Part No.	No. cores x cross-sec. mm ²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.¹)
20088	1 x 0,34**	3,2	13,5	24	22	16025	1 x 0,75**	3,8	19,0	41	18
20056	2 x 0,34	4,8	18,0	30	22	16026	2 x 0,75	6,2	38,0	59	18
20057	3 x 0,34	5,1	22,0	37	22	16027	3 x 0,75	6,4	50,0	66	18
20058	4 x 0,34	5,6	32,2	48	22	16028	4 x 0,75	7,0	57,0	77	18
20059	5 x 0,34	6,0	31,0	54	22	16029	5 x 0,75	7,6	70,0	93	18
20085	6 x 0,34	6,5	45,0	61	22	16030	6 x 0,75	8,3	87,0	113	18
20060	7 x 0,34	6,6	51,0	67	22	16031	7 x 0,75	8,5	96,0	130	18
20061	8 x 0,34	7,1	54,0	81	22	16032	8 x 0,75	9,2	110,0	145	18
20062	10 x 0,34	8,0	65,0	103	22	16033	10 x 0,75	10,5	140,0	180	18
20063	12 x 0,34	8,4	70,0	110	22	16034	12 x 0,75	10,9	151,0	202	18
20064	14 x 0,34	8,9	81,0	153	22	16035	14 x 0,75	11,6	167,0	225	18
20065	16 x 0,34	9,4	88,0	159	22	16036	16 x 0,75	12,3	183,0	275	18
20066	18 x 0,34	9,9	103,0	172	22	16037	18 x 0,75	13,0	207,0	292	18
20089	19 x 0,34	10,1	106,0	181	22	16529	19 x 0,75	13,2	221,0	322	18
20067	20 x 0,34	10,8	112,0	191	22	16038	20 x 0,75	14,0	238,0	362	18
20068	21 x 0,34	10,8	116,0	199	22	16039	24 x 0,75	15,5	270,0	435	18
20069	24 x 0,34	11,6	129,0	229	22	16040	25 x 0,75	15,5	278,0	415	18
20093	25 x 0,34	11,6	120,0	241	22	16041	27 x 0,75	16,2	287,0	467	18
20070	27 x 0,34	12,2	138,0	258	22	16042	30 x 0,75	16,8	315,0	486	18
20071	30 x 0,34	12,6	158,0	290	22	16043	32 x 0,75	17,1	330,0	530	18
20072	32 x 0,34	12,9	163,0	305	22	16163	34 x 0,75	17,5	350,0	570	18
20073	36 x 0,34	13,6	178,0	330	22	16044	36 x 0,75	17,8	370,0	600	18
20090	37 x 0,34	13,8	192,0	348	22	16530	37 x 0,75	18,2	386,0	640	18
20074	40 x 0,34	14,4	198,0	364	22	16045	40 x 0,75	19,0	395,0	680	18
20075	42 x 0,34	15,1	203,0	389	22	16120	42 x 0,75	19,7	408,0	714	18
20076	44 x 0,34	15,5	214,0	414	22	16046	50 x 0,75	20,9	480,0	810	18
20077	48 x 0,34	15,8	227,0	420	22	16047	61 x 0,75	22,9	555,0	900	18
20078	52 x 0,34	16,2	242,0	450	22	16048	80 x 0,75	27,4	715,0	1200	18
20079	56 x 0,34	16,6	267,0	480	22	16049	100 x 0,75	31,2	910,0	1440	18
20080	61 x 0,34	17,1	295,0	520	22						
20081	80 x 0,34	25,6	524,0	580	22	16475	2 x 1	6,5	46,0	65	17
20082	100 x 0,34	28,5	620,0	694	22	16476	3 x 1	6,9	56,0	80	17
						16477	4 x 1	7,5	69,0	98	17
16001	1 x 0,5**	3,4	15,0	40	20	16478	5 x 1	8,3	89,0	127	17
16002	2 x 0,5	5,4	29,0	45	20	16479	6 x 1	8,9	105,0	144	17
16003	3 x 0,5	5,8	39,0	55	20	16480	7 x 1	9,0	111,0	158	17
16004	4 x 0,5	6,4	46,0	61	20	16481	8 x 1	10,2	130,0	197	17
16005	5 x 0,5	6,8	52,0	76	20	16482	10 x 1	11,4	140,0	232	17
16006	6 x 0,5	7,4	66,0	89	20	16483	12 x 1	11,7	168,0	260	17
16007	7 x 0,5	7,6	68,0	98	20	16484	14 x 1	12,7	198,0	302	17
16008	8 x 0,5	8,3	80,0	117	20	16485	16 x 1	13,4	218,0	346	17
16009	10 x 0,5	9,4	93,0	135	20	16486	19 x 1	13,9	268,0	412	17
16010	12 x 0,5	9,7	117,0	157	20	16487	24 x 1	16,5	320,0	493	17
16011	14 x 0,5	10,4	122,0	190	20	16488	27 x 1	16,8	360,0	562	17
16012	16 x 0,5	11,1	129,0	210	20	16489	37 x 1	18,8	485,0	790	17
16013	18 x 0,5	11,6	152,0	217	20						
16526	19 x 0,5	11,7	156,0	246	20	16500	2 x 1,5	7,5	63,0	88	16
16014	20 x 0,5	12,6	173,0	275	20	16501	3 x 1,5	8,0	76,0	100	16
16015	24 x 0,5	13,7	236,0	337	20	16502	4 x 1,5	8,7	98,0	126	16
16016	25 x 0,5	13,9	250,0	351	20	16503	5 x 1,5	9,6	116,0	160	16
16527	27 x 0,5	14,0	265,0	373	20	16504	6 x 1,5	10,6	140,0	192	16
16017	30 x 0,5	14,6	297,0	396	20	16505	7 x 1,5	10,7	152,0	208	16
16018	32 x 0,5	15,0	301,0	431	20	16506	8 x 1,5	11,7	172,0	244	16
16164	34 x 0,5	15,4	312,0	440	20	16507	10 x 1,5	13,5	193,0	315	16
16019	36 x 0,5	15,7	320,0	445	20	16508	12 x 1,5	14,0	254,0	338	16
16528	37 x 0,5	16,1	325,0	458	20	16509	14 x 1,5	15,0	272,0	383	16
16020	40 x 0,5	16,5	345,0	470	20	16510	16 x 1,5	15,7	285,0	424	16
16021	50 x 0,5	18,4	407,0	570	20	16511	19 x 1,5	17,1	387,0	506	16
16022	61 x 0,5	19,4	580,0	650	20	16512	24 x 1,5	19,5	448,0	690	16
16023	80 x 0,5	23,0	690,0	780	20	16513	27 x 1,5	19,8	506,0	781	16
16024	100 x 0,5	25,9	814,0	990	20	16514	37 x 1,5	23,6	682,0	941	16

¹) Note

AWG sizes are approximate equivalent values.
The actual cross-section is in mm² – see page T 15.

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(e. g. HELUKABEL®-PAAR-TRONIC-CY 16 x 2 x 0,14 mm²).
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**** Note**

For 1 core cable screen of helically wound