

# TRONIC-CY (LiY-CY) flexible, Cu-screened, colour coded to DIN 47100, EMC-preferred type, meter marking



## Technical data

- Special-PVC data cable for electronic control adapted to DIN VDE 0812
- **Temperature range**  
flexing -5°C to +80°C  
fixed installation -40°C to +80°C
- **Operating peak voltage**  
(not for heavy current installation purposes)  
0,14 mm<sup>2</sup> = 350 V  
≥ 0,25 mm<sup>2</sup> = 500 V
- **Test voltage**  
core/core 1200 V  
core/screen 800 V
- **Breakdown voltage** min. 2400 V
- **Insulation resistance**  
min. 20 MOhm x km
- **Capacitance** (approx. -value) at 800 Hz  
core/core at 0,14 mm<sup>2</sup> = 120 pF/m  
core/core 0,25 mm<sup>2</sup> = 150 pF/m  
core/screen at 0,14 mm<sup>2</sup> = 240 pF/m  
core/screen 0,25 mm<sup>2</sup> = 270 pF/m
- **Inductance** approx. 0,65 mH/km
- **Impedance** approx. 78 Ohm
- **Coupling resistance**  
max. 250 Ohm/km
- **Minimum bending radius**  
flexing 10x cable Ø  
fixed installation 5x cable Ø
- **Radiation resistance**  
up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

## Cable structure

- Bare copper-conductor, from 0,5 mm<sup>2</sup> to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5
- Conductor construction:  
0,14 mm<sup>2</sup> = 18x0,1 mm  
0,25 mm<sup>2</sup> = 14x0,15 mm  
0,34 mm<sup>2</sup> = 7x0,25 mm
- Core insulation of special PVC compound type T12 to DIN VDE 0207-363-3 / DIN EN 50363-3
- Core identification to DIN 47100, without colour repetition
- Cores stranded in layers with optimal lay-length
- Foil wrapping
- Drain-wire, tinned
- Tinned, copper braided screen, approx. 85% coverage
- Outer sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1
- Sheath colour grey (RAL 7001)
- with meter marking

## Properties

- Extensively oil resistant, oil- / chemical Resistance - see table Technical Informations
  - The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers
- ### Tests
- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

## Note

- Also available in paired version, see HELUKABEL®-PAAR-TRONIC-CY
- For 1 core cable screen of helically wound.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- unscreened analogue type: **TRONIC (LiYY)**

## 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

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
20139	1 x 0,14	2,6	6,1	16,0	26	20015	24 x 0,14	8,9	62,0	131,0	26
20001	2 x 0,14	3,9	12,0	20,0	26	20091	25 x 0,14	9,1	61,0	136,0	26
20002	3 x 0,14	4,0	13,0	27,0	26	20016	27 x 0,14	9,2	65,0	142,0	26
20003	4 x 0,14	4,3	14,5	32,0	26	20017	30 x 0,14	9,5	69,0	157,0	26
20004	5 x 0,14	4,7	15,5	37,0	26	20018	32 x 0,14	9,9	76,0	163,0	26
20005	6 x 0,14	5,2	18,2	42,0	26	20019	36 x 0,14	10,2	83,0	182,0	26
20006	7 x 0,14	5,2	19,0	48,0	26	20020	40 x 0,14	11,1	88,0	209,0	26
20007	8 x 0,14	5,9	21,3	55,0	26	20021	42 x 0,14	11,2	94,0	217,0	26
20008	10 x 0,14	6,5	28,7	65,0	26	20022	44 x 0,14	11,5	110,0	226,0	26
20009	12 x 0,14	6,7	30,5	77,0	26	20023	48 x 0,14	11,7	115,0	240,0	26
20010	14 x 0,14	6,9	32,0	79,0	26	20024	52 x 0,14	12,3	124,0	270,0	26
20011	16 x 0,14	7,3	43,2	89,0	26	20025	56 x 0,14	12,5	132,0	320,0	26
20012	18 x 0,14	7,6	51,0	103,0	26	20026	61 x 0,14	12,8	146,0	370,0	26
20013	20 x 0,14	8,3	55,0	116,0	26	20027	80 x 0,14	14,7	226,0	510,0	26
20014	21 x 0,14	8,4	56,0	120,0	26	20028	100 x 0,14	16,3	267,0	580,0	26

Continuation ▶

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Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
20084	1 x 0,25	3,0	7,2	27,0	24	16012	16 x 0,5	10,6	129,0	210,0	20
20029	2 x 0,25	4,3	15,8	31,0	24	16013	18 x 0,5	11,3	152,0	217,0	20
20030	3 x 0,25	4,5	18,6	36,0	24	16526	19 x 0,5	11,3	156,0	246,0	20
20031	4 x 0,25	4,8	22,0	40,0	24	16014	20 x 0,5	12,0	173,0	275,0	20
20032	5 x 0,25	5,4	26,5	51,0	24	16015	24 x 0,5	13,2	236,0	337,0	20
20083	6 x 0,25	5,8	32,4	58,0	24	16016	25 x 0,5	13,7	250,0	351,0	20
20033	7 x 0,25	5,8	35,0	64,0	24	16527	27 x 0,5	13,8	265,0	373,0	20
20034	8 x 0,25	7,0	42,1	82,0	24	16017	30 x 0,5	14,2	297,0	396,0	20
20035	10 x 0,25	7,3	49,9	85,0	24	16018	32 x 0,5	14,7	301,0	431,0	20
20036	12 x 0,25	7,5	58,0	90,0	24	16164	34 x 0,5	15,4	312,0	440,0	20
20037	14 x 0,25	8,1	62,0	144,0	24	16019	36 x 0,5	15,5	320,0	445,0	20
20038	16 x 0,25	8,5	67,0	110,0	24	16528	37 x 0,5	15,5	325,0	458,0	20
20039	18 x 0,25	9,1	78,0	142,0	24	16020	40 x 0,5	16,4	345,0	470,0	20
20086	19 x 0,25	9,1	79,0	146,0	24	16021	50 x 0,5	18,2	407,0	570,0	20
20040	20 x 0,25	9,5	88,0	152,0	24	16022	61 x 0,5	19,2	508,0	650,0	20
20041	21 x 0,25	9,6	91,0	150,0	24	16023	80 x 0,5	22,1	690,0	780,0	20
20042	24 x 0,25	10,4	96,0	163,0	24	16024	100 x 0,5	24,6	814,0	990,0	20
20092	25 x 0,25	10,6	99,0	169,0	24	16025	1 x 0,75	4,0	19,0	41,0	19
20043	27 x 0,25	10,7	122,0	176,0	24	16026	2 x 0,75	5,8	38,0	59,0	19
20044	30 x 0,25	11,1	132,0	189,0	24	16027	3 x 0,75	6,3	50,0	66,0	19
20045	32 x 0,25	11,5	138,0	204,0	24	16028	4 x 0,75	6,8	57,0	77,0	19
20046	36 x 0,25	11,9	146,0	219,0	24	16029	5 x 0,75	7,4	70,0	93,0	19
20087	37 x 0,25	11,9	152,0	230,0	24	16030	6 x 0,75	8,2	87,0	113,0	19
20047	40 x 0,25	12,9	157,0	247,0	24	16031	7 x 0,75	8,2	96,0	130,0	19
20048	42 x 0,25	13,0	160,0	269,0	24	16032	8 x 0,75	9,7	110,0	145,0	19
20049	44 x 0,25	13,7	164,0	292,0	24	16033	10 x 0,75	10,3	140,0	180,0	19
20050	48 x 0,25	13,9	164,0	317,0	24	16034	12 x 0,75	10,5	151,0	202,0	19
20051	52 x 0,25	14,3	175,0	330,0	24	16035	14 x 0,75	11,3	167,0	225,0	19
20052	56 x 0,25	14,7	189,0	343,0	24	16036	16 x 0,75	11,9	183,0	275,0	19
20053	61 x 0,25	15,2	204,0	365,0	24	16037	18 x 0,75	12,7	207,0	292,0	19
20054	80 x 0,25	17,2	387,0	480,0	24	16529	19 x 0,75	12,7	221,0	322,0	19
20055	100 x 0,25	19,4	505,0	605,0	24	16038	20 x 0,75	13,6	238,0	362,0	19
20088	1 x 0,34	3,2	13,5	24,0	22	16039	24 x 0,75	14,9	270,0	435,0	19
20056	2 x 0,34	4,9	18,0	30,0	22	16040	25 x 0,75	15,0	278,0	415,0	19
20057	3 x 0,34	5,1	22,0	37,0	22	16041	27 x 0,75	15,1	287,0	467,0	19
20058	4 x 0,34	5,5	28,0	48,0	22	16042	30 x 0,75	16,0	315,0	486,0	19
20059	5 x 0,34	6,0	31,0	54,0	22	16043	32 x 0,75	16,5	330,0	530,0	19
20085	6 x 0,34	6,6	45,0	61,0	22	16163	34 x 0,75	17,7	350,0	570,0	19
20060	7 x 0,34	6,6	51,0	67,0	22	16044	36 x 0,75	17,4	370,0	600,0	19
20061	8 x 0,34	7,7	54,0	81,0	22	16530	37 x 0,75	17,4	386,0	640,0	19
20062	10 x 0,34	8,4	65,0	103,0	22	16045	40 x 0,75	18,7	395,0	680,0	19
20063	12 x 0,34	8,6	70,0	110,0	22	16120	42 x 0,75	18,9	408,0	714,0	19
20064	14 x 0,34	9,0	81,0	153,0	22	16047	61 x 0,75	22,0	555,0	900,0	19
20065	16 x 0,34	9,6	88,0	159,0	22	16048	80 x 0,75	25,3	715,0	1200,0	19
20066	18 x 0,34	10,1	103,0	172,0	22	16049	100 x 0,75	28,0	910,0	1440,0	19
20089	19 x 0,34	10,1	106,0	181,0	22	16475	2 x 1	6,4	46,0	65,0	18
20067	20 x 0,34	10,8	112,0	191,0	22	16476	3 x 1	6,7	56,0	80,0	18
20068	21 x 0,34	10,9	116,0	199,0	22	16477	4 x 1	7,2	69,0	98,0	18
20069	24 x 0,34	11,7	129,0	229,0	22	16478	5 x 1	8,0	89,0	127,0	18
20093	25 x 0,34	12,0	120,0	241,0	22	16479	6 x 1	8,7	105,0	144,0	18
20070	27 x 0,34	12,1	138,0	258,0	22	16480	7 x 1	8,7	111,0	158,0	18
20071	30 x 0,34	12,6	158,0	290,0	22	16481	8 x 1	10,3	130,0	197,0	18
20072	32 x 0,34	13,0	163,0	305,0	22	16482	10 x 1	11,2	140,0	232,0	18
20073	36 x 0,34	13,8	178,0	330,0	22	16483	12 x 1	11,4	168,0	260,0	18
20090	37 x 0,34	13,8	192,0	348,0	22	16484	14 x 1	12,0	198,0	302,0	18
20074	40 x 0,34	14,8	198,0	364,0	22	16485	16 x 1	12,8	218,0	346,0	18
20075	42 x 0,34	14,9	203,0	389,0	22	16486	19 x 1	13,6	268,0	412,0	18
20076	44 x 0,34	15,6	214,0	414,0	22	16487	24 x 1	16,0	320,0	493,0	18
20077	48 x 0,34	15,8	227,0	420,0	22	16488	27 x 1	16,4	360,0	562,0	18
20078	52 x 0,34	16,3	242,0	450,0	22	16489	37 x 1	18,6	485,0	790,0	18
20079	56 x 0,34	16,8	267,0	480,0	22	16500	2 x 1,5	7,0	63,0	88,0	16
20080	61 x 0,34	17,2	295,0	520,0	22	16501	3 x 1,5	7,4	76,0	100,0	16
20081	80 x 0,34	19,6	524,0	580,0	22	16502	4 x 1,5	8,1	98,0	126,0	16
20082	100 x 0,34	21,9	620,0	694,0	22	16503	5 x 1,5	9,0	116,0	160,0	16
16001	1 x 0,5	3,5	15,0	40,0	20	16504	6 x 1,5	9,8	140,0	192,0	16
16002	2 x 0,5	5,3	29,0	45,0	20	16505	7 x 1,5	9,8	152,0	208,0	16
16003	3 x 0,5	5,6	39,0	55,0	20	16506	8 x 1,5	11,0	172,0	244,0	16
16004	4 x 0,5	6,3	46,0	61,0	20	16507	10 x 1,5	12,6	193,0	315,0	16
16005	5 x 0,5	6,8	52,0	76,0	20	16508	12 x 1,5	12,8	254,0	338,0	16
16006	6 x 0,5	7,3	66,0	89,0	20	16509	14 x 1,5	13,5	272,0	383,0	16
16007	7 x 0,5	7,3	68,0	98,0	20	16510	16 x 1,5	14,6	285,0	424,0	16
16008	8 x 0,5	8,6	80,0	117,0	20	16511	19 x 1,5	15,6	387,0	506,0	16
16009	10 x 0,5	9,4	93,0	135,0	20	16512	24 x 1,5	18,1	448,0	690,0	16
16010	12 x 0,5	9,6	117,0	157,0	20	16513	27 x 1,5	18,7	506,0	781,0	16
16011	14 x 0,5	10,1	122,0	190,0	20	16514	37 x 1,5	21,4	682,0	941,0	16

Dimensions and specifications may be changed without prior notice. (RB01)