

# TRONIC-CY (LiY-CY) flexible, Cu-screened, colour coded to DIN 47100,

EMC-preferred type, meter marking



## Technical data

Special PVC data screened cables, adapted to DIN VDE 0812  
 Temperature range flexing -5 °C to +80 °C  
 fixed installation -40 °C to +80 °C  
 Nominal voltage  
 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. 200 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  
 Load (A) According to different cross-sections, see table  
 Technical Information  
 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, fine wire conductors for 0,5 mm<sup>2</sup> to DIN VDE 0295 cl. 5 and IEC 60228 cl. 5  
 Conductor make-up for  
 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  
 Special PVC core insulation T12, to DIN VDE 0281 part 1  
 Cores stranded in layers with optimal lay-length  
 Colour coded to DIN 47100, but without colour repetition  
 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  
 Colour grey (RAL 7001)  
 with meter marking, change-over in 2011

## Properties

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

## Note

HELUKABEL®-TRONIC-CY is also available in paired version (e.g. HELUKABEL®-PAAR-TRONIC-CY 16x2x0,14 mm<sup>2</sup>).  
 For 1 core cable screen of helically wound. **unscreened analogue type:** TRONIC (LiYY), see page B 4

## 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 optimise 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/EG.

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Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
	1 x 0,25	2,9	7,2	27,0	24		16 x 0,5	10,6	129,0	210,0	20
	2 x 0,25	4,2	15,8	31,0	24		18 x 0,5	10,7	152,0	217,0	20
	3 x 0,25	4,3	18,6	36,0	24		19 x 0,5	11,2	156,0	246,0	20
	4 x 0,25	4,7	22,0	40,0	24		20 x 0,5	11,7	173,0	275,0	20
	5 x 0,25	5,3	26,5	51,0	24		24 x 0,5	12,6	236,0	337,0	20
<b>PLU030110</b>	6 x 0,25	5,7	32,4	58,0	24		25 x 0,5	12,7	250,0	351,0	20
	7 x 0,25	5,7	35,0	64,0	24		27 x 0,5	12,7	265,0	373,0	20
	8 x 0,25	6,3	42,1	82,0	24		30 x 0,5	14,1	297,0	396,0	20
	10 x 0,25	7,2	49,9	85,0	24		32 x 0,5	14,6	301,0	431,0	20
	12 x 0,25	7,3	58,0	90,0	24		34 x 0,5	15,3	312,0	440,0	20
	14 x 0,25	7,9	62,0	144,0	24		36 x 0,5	15,3	320,0	445,0	20
	16 x 0,25	8,3	67,0	110,0	24		37 x 0,5	15,3	325,0	458,0	20
	18 x 0,25	9,1	78,0	142,0	24		40 x 0,5	15,8	345,0	470,0	20
	19 x 0,25	9,1	79,0	146,0	24		50 x 0,5	18,1	407,0	570,0	20
	20 x 0,25	9,4	88,0	152,0	24		61 x 0,5	19,1	508,0	650,0	20
	21 x 0,25	9,4	91,0	150,0	24		80 x 0,5	21,9	690,0	780,0	20
	24 x 0,25	10,0	96,0	163,0	24		100 x 0,5	24,3	814,0	990,0	20
	25 x 0,25	10,1	99,0	169,0	24		1 x 0,75	3,8	19,0	41,0	18
	27 x 0,25	10,1	122,0	176,0	24		2 x 0,75	5,8	38,0	59,0	18
	30 x 0,25	11,1	132,0	189,0	24		3 x 0,75	6,3	50,0	66,0	18
	32 x 0,25	11,5	138,0	204,0	24		4 x 0,75	6,8	57,0	77,0	18
	36 x 0,25	11,9	146,0	219,0	24		5 x 0,75	7,3	70,0	93,0	18
	37 x 0,25	11,9	152,0	230,0	24		6 x 0,75	8,1	87,0	113,0	18
	40 x 0,25	12,4	157,0	247,0	24		7 x 0,75	8,2	96,0	130,0	18
	42 x 0,25	12,8	160,0	269,0	24		8 x 0,75	9,0	110,0	145,0	18
	44 x 0,25	13,6	164,0	292,0	24		10 x 0,75	10,3	140,0	180,0	18
	48 x 0,25	13,7	164,0	317,0	24		12 x 0,75	10,5	151,0	202,0	18
	52 x 0,25	14,1	175,0	330,0	24		14 x 0,75	11,3	167,0	225,0	18
	56 x 0,25	14,5	189,0	343,0	24		16 x 0,75	11,8	183,0	275,0	18
	61 x 0,25	15,1	204,0	365,0	24		18 x 0,75	12,6	207,0	292,0	18
	80 x 0,25	17,1	387,0	480,0	24		19 x 0,75	12,6	221,0	322,0	18
	100 x 0,25	19,1	505,0	605,0	24		20 x 0,75	13,4	238,0	362,0	18
	1 x 0,34	3,2	13,5	24,0	22		24 x 0,75	14,1	270,0	435,0	18
	2 x 0,34	5,0	18,0	30,0	22		25 x 0,75	14,3	278,0	415,0	18
	3 x 0,34	5,2	22,0	37,0	22		27 x 0,75	14,3	287,0	467,0	18
	4 x 0,34	5,6	28,0	48,0	22		30 x 0,75	15,8	315,0	486,0	18
	5 x 0,34	6,0	31,0	54,0	22		32 x 0,75	16,3	330,0	530,0	18
	6 x 0,34	6,7	45,0	61,0	22		34 x 0,75	17,1	350,0	570,0	18
	7 x 0,34	6,7	51,0	67,0	22		36 x 0,75	17,1	370,0	600,0	18
	8 x 0,34	7,2	54,0	81,0	22		37 x 0,75	17,9	386,0	640,0	18
	10 x 0,34	8,4	65,0	103,0	22		40 x 0,75	17,9	395,0	680,0	18
	12 x 0,34	8,5	70,0	110,0	22		42 x 0,75	18,4	408,0	714,0	18
	14 x 0,34	9,0	81,0	153,0	22		61 x 0,75	21,5	555,0	900,0	18
	16 x 0,34	9,6	88,0	159,0	22		80 x 0,75	24,6	715,0	1200,0	18
	18 x 0,34	10,1	103,0	172,0	22		100 x 0,75	27,2	910,0	1440,0	18
	19 x 0,34	10,1	106,0	181,0	22		2 x 1	6,4	46,0	65,0	17
	20 x 0,34	10,7	112,0	191,0	22		3 x 1	6,7	56,0	80,0	17
	21 x 0,34	10,7	116,0	199,0	22		4 x 1	7,2	69,0	98,0	17
	24 x 0,34	11,3	129,0	229,0	22		5 x 1	8,0	89,0	127,0	17
	25 x 0,34	11,5	120,0	241,0	22		6 x 1	8,6	105,0	144,0	17
	27 x 0,34	11,5	138,0	258,0	22		7 x 1	8,6	111,0	158,0	17
	30 x 0,34	12,6	158,0	290,0	22		8 x 1	9,4	130,0	197,0	17
	32 x 0,34	13,0	163,0	305,0	22		10 x 1	11,2	140,0	232,0	17
	36 x 0,34	13,7	178,0	330,0	22		12 x 1	11,4	168,0	260,0	17
	37 x 0,34	13,7	192,0	348,0	22		14 x 1	12,0	198,0	302,0	17
	40 x 0,34	14,2	198,0	364,0	22		16 x 1	12,8	218,0	346,0	17
	42 x 0,34	14,8	203,0	389,0	22		19 x 1	13,6	268,0	412,0	17
	44 x 0,34	15,4	214,0	414,0	22		24 x 1	15,2	320,0	493,0	17
	48 x 0,34	15,6	227,0	420,0	22		27 x 1	15,4	360,0	562,0	17
	52 x 0,34	16,2	242,0	450,0	22		37 x 1	18,3	485,0	790,0	17
	56 x 0,34	16,6	267,0	480,0	22		2 x 1,5	7,3	63,0	88,0	16
	61 x 0,34	17,1	295,0	520,0	22		3 x 1,5	7,6	76,0	100,0	16
	80 x 0,34	19,4	524,0	580,0	22		4 x 1,5	8,3	98,0	126,0	16
	100 x 0,34	21,7	620,0	694,0	22		5 x 1,5	9,2	116,0	160,0	16
	1 x 0,5	3,6	15,0	40,0	20		6 x 1,5	9,9	140,0	192,0	16
	2 x 0,5	5,5	29,0	45,0	20		7 x 1,5	9,9	152,0	208,0	16
	3 x 0,5	5,7	39,0	55,0	20		8 x 1,5	10,8	172,0	244,0	16
	4 x 0,5	6,3	46,0	61,0	20		10 x 1,5	13,0	193,0	315,0	16
	5 x 0,5	6,8	52,0	76,0	20		12 x 1,5	13,0	254,0	338,0	16
	6 x 0,5	7,3	66,0	89,0	20		14 x 1,5	13,9	272,0	383,0	16
	7 x 0,5	7,3	68,0	98,0	20		16 x 1,5	14,9	285,0	424,0	16
	8 x 0,5	8,0	80,0	117,0	20		19 x 1,5	15,6	387,0	506,0	16
	10 x 0,5	9,4	93,0	135,0	20		24 x 1,5	17,7	448,0	690,0	16
	12 x 0,5	9,6	117,0	157,0	20		27 x 1,5	17,9	506,0	781,0	16
	14 x 0,5	10,1	122,0	190,0	20		37 x 1,5	21,2	682,0	941,0	16

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