

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



## 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<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 MΩm 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 Ωm
- **Coupling resistance** max. 250 Ωm/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 TI2, 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)

## Properties

- Extensively oil resistant.  
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>).
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- For 1 core cable screen of helically wound.
- **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 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 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.	Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
20139	1 x 0,14	2,2	6,1	16,0	26	20015	24 x 0,14	8,0	62,0	131,0	26
20001	2 x 0,14	3,7	12,0	20,0	26	20091	25 x 0,14	8,1	61,0	136,0	26
20002	3 x 0,14	3,8	13,0	27,0	26	20016	27 x 0,14	8,6	65,0	142,0	26
20003	4 x 0,14	4,1	14,5	32,0	26	20017	30 x 0,14	8,9	69,0	157,0	26
20004	5 x 0,14	4,6	15,5	37,0	26	20018	32 x 0,14	9,1	76,0	163,0	26
20005	6 x 0,14	4,9	18,2	42,0	26	20019	36 x 0,14	9,7	85,0	182,0	26
20006	7 x 0,14	4,9	19,0	48,0	26	20020	40 x 0,14	10,2	88,0	209,0	26
20007	8 x 0,14	5,3	21,3	55,0	26	20021	42 x 0,14	10,7	94,0	217,0	26
20008	10 x 0,14	6,0	28,7	65,0	26	20022	44 x 0,14	11,1	110,0	226,0	26
20009	12 x 0,14	6,2	30,5	77,0	26	20023	48 x 0,14	11,1	115,0	240,0	26
20010	14 x 0,14	6,6	32,0	79,0	26	20024	52 x 0,14	11,4	124,0	270,0	26
20011	16 x 0,14	6,9	43,2	89,0	26	20025	56 x 0,14	11,8	132,0	320,0	26
20012	18 x 0,14	7,1	51,0	103,0	26	20026	61 x 0,14	12,2	146,0	370,0	26
20013	20 x 0,14	7,6	55,0	116,0	26	20027	80 x 0,14	19,0	226,0	510,0	26
20014	21 x 0,14	7,6	56,0	120,0	26	20028	100 x 0,14	23,0	267,0	580,0	26

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20008	10 x 0,14	6,0	28,7	65,0	26
20009	12 x 0,14	6,2	30,5	77,0	26
20010	14 x 0,14	6,6	32,0	79,0	26
20011	16 x 0,14	6,9	43,2	89,0	26
20012	18 x 0,14	7,1	51,0	103,0	26
20013	20 x 0,14	7,6	55,0	116,0	26
20014	21 x 0,14	7,6	56,0	120,0	26

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20016	27 x 0,14	8,6	65,0	142,0	26
20017	30 x 0,14	8,9	69,0	157,0	26
20018	32 x 0,14	9,1	76,0	163,0	26
20019	36 x 0,14	9,7	83,0	182,0	26
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20025	56 x 0,14	11,8	132,0	320,0	26
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