

# PAAR-TRONIC-CY-CY (LIYCY-CY) EMC\*-preferred type



HELUKABEL PAAR-TRONIC-CY-CY CE

## Technical data

– Special PVC data transmission cable adapted to DIN VDE 0812 and 0814

### – Temperature range

flexing – 5°C to +80°C  
fixed installation –20°C to +80°C

### – Electrical characteristics

0,14 mm<sup>2</sup> 0,25 mm<sup>2</sup>

#### – Conductor resistance

Ohm/km max. 138 778

#### – Nominal voltage

volt (max.) 350 500

#### – Test voltage

volt 1200 2000

#### – Mutual capacitance

pF/m core/core 147 152,5

pF/m core/screen 147 263

#### – Impedance

Ohm/1 kHz/20°C 536 396

#### – Coupling

pF/100 m/1 kHz 250 250

#### – Screen resistance

Ohm/km 36 18

#### – Attenuation

dB/1 kHz/km 3,6 2,2

#### – Minimum bending radius

flexing 12 x cable Ø

fixed installation 6 x cable Ø

#### – Radiation resistance

up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

## Cable structure

– Bare copper, fine wire conductors, to DIN VDE 0812

– Strand make-up

0,14 mm<sup>2</sup> = 18x0,10 mm

0,25 mm<sup>2</sup> = 14x0,15 mm

– Special PVC core insulation Y12, to DIN VDE 0207 part 4

– Core colours to DIN 47100 with colour repetition, see page T 47

– Cores stranded in pairs with optimal lay-length

– Pairs screened individually, tinned copper, coverage approx. 85%

– Special PVC coating over individual screened pairs

– All pairs-CY stranded together

– Core wrapping with polyester foil, overlapped

– Overall braid-screening, tinned copper coverage approx. 85%

– Special PVC outer sheath YM2, to DIN VDE 0207 part 5

colour grey (RAL 7001)

– Extensively oil resistant

Chemical Resistance – see

table Technical Informations

– PVC self-extinguishing and flame retardant, test method B according to

VDE 0472 part 804 and IEC 60332-1

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

## Application

This cable type offers total interference-free data transfer and is ideal for use as a signal and control cable in combination with computers and external units. The screening properties also make this cable type well suited for use as a connecting cable in sound studio equipment, measuring and control sectors as well as proving a highly reliable cable for process-control and security systems.

The copper screening assures a disturbance-free data and signal transmission for measuring and control systems.

\* EMC = Electromagnetic compatibility

**Note** 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. pairs x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg/km	Weight ca. kg/km	AWG-no.*)
21065	2x2x0,14	7,3	31,0	95	26
21066	3x2x0,14	7,5	34,0	105	26
21067	4x2x0,14	9,3	45,0	140	26
21068	5x2x0,14	10,5	58,0	160	26
21069	6x2x0,14	11,0	67,0	185	26
21070	7x2x0,14	11,0	78,0	230	26
21071	8x2x0,14	13,0	97,0	245	26
21072	9x2x0,14	14,1	101,0	280	26
21073	10x2x0,14	14,0	108,0	325	26
21074	12x2x0,14	15,0	134,0	380	26
21075	16x2x0,14	17,0	179,0	440	26
21076	20x2x0,14	17,8	225,0	520	26
21077	2x2x0,25	9,5	62,0	125	24
21078	3x2x0,25	10,0	78,2	140	24
21079	4x2x0,25	12,0	124,1	205	24
21080	5x2x0,25	12,1	137,6	230	24
21081	6x2x0,25	13,0	148,1	275	24
21082	7x2x0,25	16,0	159,1	295	24
21083	8x2x0,25	17,0	178,7	330	24
21084	10x2x0,25	17,2	213,9	420	24
21085	12x2x0,25	17,5	238,3	465	24
21086	16x2x0,25	22,0	291,4	590	24
21087	20x2x0,25	22,6	325,0	620	24
21088	24x2x0,25	27,5	367,5	690	24

**Note:** As of 0,75 mm<sup>2</sup> cross-sec. see type L-EDV-PIMF-CY, page C 22. A further selection of sizes and dimensions is available on request. PVC cables will be changed to lead free PVC successively.

Part No.	No. pairs x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg/km	Weight ca. kg/km	AWG-no.*)
21089	32x2x0,25	29,8	588,0	785	24
21090	48x2x0,25	34,5	840,5	970	24
21091	2x2x0,34	10,1	73,1	139	22
21092	3x2x0,34	11,0	88,1	157	22
21093	4x2x0,34	12,4	137,2	213	22
21094	6x2x0,34	14,5	174,8	308	22
21095	8x2x0,34	17,6	247,2	385	22
21096	10x2x0,34	17,6	288,7	433	22
21097	12x2x0,34	18,5	321,0	495	22
21098	14x2x0,34	20,7	388,4	600	22
21099	16x2x0,34	22,5	425,5	637	22
21100	24x2x0,34	28,0	577,1	781	22
21101	2x2x0,50	10,8	83,1	143	20
21102	3x2x0,50	11,4	106,4	179	20
21103	4x2x0,50	13,0	158,0	241	20
21104	6x2x0,50	14,9	201,4	319	20
21105	8x2x0,50	18,8	311,5	441	20
21106	10x2x0,50	18,0	334,5	464	20
21107	12x2x0,50	20,1	394,1	529	20
21108	14x2x0,50	21,6	446,0	641	20
21109	16x2x0,50	23,8	501,2	694	20
21110	24x2x0,50	28,4	712,4	930	20

### \*) Note

AWG sizes are approximate equivalent values.

The actual cross-section is in mm<sup>2</sup> – see page T 15.