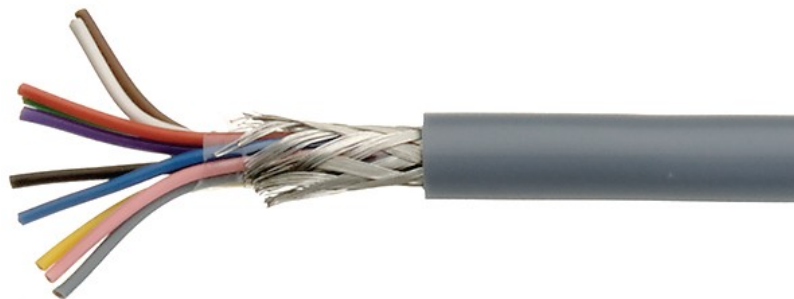




**LiYCY (LiYCY-TP) Multi-conductor  
Multi-pair ,Low-Voltage Communication  
and Control Cable; Shielded**



**IEC 60228 ; EN 50290-2-22 ; IEC 60332-1-2  
RoHS , REACH & CE Directives**



Ambient installation T°  
C range  
**0 + 50 °C**



Operating temp.  
**-20 + 60 °C**



Storage temperature  
range  
**-20 + 70 °C**



Flame retardant  
**IEC 60332-1**



Smoke density

## Applications

LiYCY (Line-PVC-Copper-PVC) is a flexible, screened multi-core control and signal cable designed primarily for data transmission and automation. It is used extensively in industrial environments for low-voltage applications, such as connecting control systems, sensors, and office equipment, providing excellent protection against electromagnetic interference (EMI) due to its tinned copper braid shield. Signal transmission and power connection for sensors, servo motors, and robotic equipment. Widely used as data cables in electronic control equipment, balances, and office machinery. Used in tool making, machine industries, and electroacoustic systems. Suitable for dry and damp indoor environments where low mechanical stress is expected, particularly where a small diameter is required.

The tinned copper braid provides protection against electrical interference. Designed for flexible or stationary use, although not for continuous movement or under tensile stress. Composed of soft annealed tinned copper wire, PVC insulation, a tinned copper braid, and a grey PVC outer sheath. Typically rated for -5°C up to +70°C for flexible use, and -40°C up to +70°C for fixed installation. Available in a twisted pair (TP) version, which reduces crosstalk between cores.

### Technical Data Sheet

#### LIYCY / LIYCY (TP) Construction:

Conductor material:

Insulation material:

Core stranding

Screening

Jacket / sheath material:

Sheath colour:

Class 5 Fine stranded bare copper  
 PVC compound Y12 (Polyvinyl chloride)  
 Pairs twisted in layers,  
 Wrapping by Polyester plastic foil  
 Braiding of tinned copper wires  
 PVC YM2 (Polyvinyl chloride)  
 Pebble gray (RAL 7032)

#### Core identification:

2 Core: ○ White ● Brown

3 Core: ○ White ● Brown ● Green

4 Core: ○ White ● Brown ● Green ● Yellow

5 Core: ○ White ● Brown ● Green ● Yellow ● Grey

6 Core: ○ White ● Brown ● Green ● Yellow ● Grey ● Pink

Larger sizes: 6 Core colours + following colours in addition

7 Core : ● Blue

8 Core: ● Red

10 Core: ● Black ● Violet

12 Core: ● Grey/Pink ● Red/Blue

#### Technical Data:

Mutual capacitance (core to core) Nom.  
 (core to screen) Nom.

nF/km 120

nF/km 160

Inductivity Nom.

Mh/km 0.50

Insulation resistance

GΩ x cm > 20

Peak operating voltage at 0.14 mm<sup>2</sup>  
 at ≥ 0.25 mm<sup>2</sup>

V 350 (not for power applications)

V 500 (not for power applications)

Test voltage at 0.14 mm<sup>2</sup>  
 at ≥ 0.25 mm<sup>2</sup>

V 1200

V 1500

Oil resistant

EN 50290-2-22 (TM54)

Temperature range (for flexible use)  
 (for stationary use)

-5°C to +70 °C

-40°C to +80 °C

Bending radius Ocassional movement)  
 (Fixed installation)

15 x OD (overall diameter)

6 x OD (overall diameter)

Other properties

Good UV resistance, chemical resistance  
 & flexibility

#### LIYCY / LIYCY-TP

#### Dimensions:

Cable Description	No. of Cores	Nominal Conductor Size (mm <sup>2</sup> )	Nominal Cable Diameter (mm)	Nominal Cable Weight ( kg/km)
<b>26 AWG (0.14 mm<sup>2</sup>)</b>				
2 x 0.14	2	0.14	3.9	20
3 x 0.14	3	0.14	4	22
4 x 0.14	4	0.14	4.2	26
5 x 0.14	5	0.14	4.6	30
6 x 0.14	6	0.14	4.9	34
7 x 0.14	7	0.14	5	37
8 x 0.14	8	0.14	6	43
10 x 0.14	10	0.14	6.5	51
12 x 0.14	12	0.14	6.7	56
<b>24 AWG (0.25 mm<sup>2</sup>)</b>				
2 x 0.25	2	0.25	4.6	28
3 x 0.25	3	0.25	4.8	31
4 x 0.25	4	0.25	5.2	37
5 x 0.25	5	0.25	5.7	44
6 x 0.25	6	0.25	6.3	49
7 x 0.25	7	0.25	6.4	53
8 x 0.25	8	0.25	6.5	64
10 x 0.25	10	0.25	6.7	76
12 x 0.25	12	0.25	7	84
<b>22 AWG (0.34 mm<sup>2</sup>)</b>				
2 x 0.34	2	0.34	4.8	31
3 x 0.34	3	0.34	5	36
4 x 0.34	4	0.34	5.4	43
5 x 0.34	5	0.34	5.9	56
6 x 0.34	6	0.34	6.6	63
7 x 0.34	7	0.34	6.8	70
8 x 0.34	8	0.34	7	82
10 x 0.34	10	0.34	7.5	94
12 x 0.34	12	0.34	8.1	102
<b>20 AWG (0.5 mm<sup>2</sup>)</b>				
2 x 0.5	2	0.5	5.1	34
3 x 0.5	3	0.5	5.3	40
4 x 0.5	4	0.5	5.8	48
5 x 0.5	5	0.5	6.4	59
6 x 0.5	6	0.5	6.9	68
7 x 0.5	7	0.5	7.1	76
8 x 0.5	8	0.5	7.4	84
10 x 0.5	10	0.5	8.7	103
12 x 0.5	12	0.5	8.9	118
<b>18 AWG (0.75 mm<sup>2</sup>)</b>				
2 x 0.75	2	0.75	5.6	41
3 x 0.75	3	0.75	5.9	51
4 x 0.75	4	0.75	6.4	63
5 x 0.75	5	0.75	7.0	74
6 x 0.75	6	0.75	7.6	86
7 x 0.75	7	0.75	7.8	96
8 x 0.75	8	0.75	8.2	107
10 x 0.75	10	0.75	9.6	132
12 x 0.75	12	0.75	9.9	152
<b>17 AWG (1 mm<sup>2</sup>)</b>				
2 x 1	2	1	6.1	48
3 x 1	3	1	6.4	62

4 x 1	4	1	7.0	76
5 x 1	5	1	7.6	91
6 x 1	6	1	8.2	104
7 x 1	7	1	8.4	116
<b>16 AWG (1.5 mm<sup>2</sup>)</b>				
2 x 1.5	2	1.5	6.8	62
3 x 1.5	3	1.5	7.2	79
4 x 1.5	4	1.5	7.8	97
5 x 1.5	5	1.5	8.6	119
6 x 1.5	6	1.5	9.4	141
7 x 1.5	7	1.5	9.6	158
<b>14 AWG (2.5 mm<sup>2</sup>)</b>				
2 x 2.5	2	2.5	7.8	85
3 x 2.5	3	2.5	8.4	115
4 x 2.5	4	2.5	9.3	148
5 x 2.5	5	2.5	10.0	176
6 x 2.5	6	2.5	10.8	202



The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.