

MachFlex LiYCY (TP)

**LiYCY Twisted Pair PVC Control & Signal Cables
Tinned Copper Braid Shielded (TCB) – Excellent Noise Immunity**

Applications

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, pressure gauge, temperature controllers, control panels, vibration monitoring systems, intelligent security controllers, production machinery and many more.

General Reference Standards

- VDE 0812, DIN 47100
- DIN VDE 0295, IEC 60228, BS 6360
- DIN EN 50290-2-22, DIN VDE 0207-363-4-1
- DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- RoHS REACH & CE Directives

Construction & Performance

- | | |
|---|--|
| <p>1. Conductor Material
Stranded bare copper (DIN VDE 0295 Class 5)</p> | <p>9. Insulation Resistance
> 20 GOhm x cm</p> |
| <p>2. Insulation Material & Colour
PVC (polyvinyl chloride), DIN 47100 (colour)</p> | <p>10. Peak Operating Voltage at 0.14 mm²: 350 V (not for power applications) at
≥ 0.25 mm²: 500 V (not for power applications)</p> |
| <p>3. Twisted Pair Structure
Twisted-pair (TP) design (crosstalk effects)</p> | <p>11. Test Voltage
At 0.14 mm²: 1200 V
≥ 0.25 mm²: 1500 V</p> |
| <p>4. Braid Shield Material
Tinned Copper Braid Shield</p> | <p>12. Oil Resistant
DIN EN 50290-2-22 (TM54)</p> |
| <p>5. Jacket / Sheath Material PVC (polyvinyl chloride)</p> | <p>13. Temperature Range
-5°C TO +70°C (Occasional movement)
-40°C TO +80°C (Fixed installation)</p> |
| <p>6. Flame Retardancy
VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2</p> | <p>14. Bending Radius
15 x OD (Occasional movement)
6 x OD (Fixed installation)</p> |
| <p>7. Mutual capacitance
Core to core Nom. 120 nF/km
Core to screen Nom. 160 nF/km</p> | <p>15. Other Properties
Good UV resistance, chemical resistance & flexibility</p> |
| <p>8. Inductivity
Nom. 0.50 mH/km</p> | |

Technical Data Sheet – LiYCY (TP) Control Cable - PVC

TABLE A

Part Code	Cable Description	No. Of Pairs	Nom. Conductor Size (mm ²)	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)
1P0.14YCY	1 x 2 x 0.14	1	0.14	3.9	20
2P0.14YCY	2 x 2 x 0.14	2	0.14	5.9	38
3P0.14YCY	3 x 2 x 0.14	3	0.14	6.2	42
4P0.14YCY	4 x 2 x 0.14	4	0.14	6.8	51
5P0.14YCY	5 x 2 x 0.14	5	0.14	7.4	60
7P0.14YCY	7 x 2 x 0.14	7	0.14	8.0	78
9P0.14YCY	9 x 2 x 0.14	9	0.14	9.7	100
10P0.14YCY	10 x 2 x 0.14	10	0.14	10.2	108
12P0.14YCY	12 x 2 x 0.14	12	0.14	10.5	121
14P0.14YCY	14 x 2 x 0.14	14	0.14	11.1	136
16P0.14YCY	16 x 2 x 0.14	16	0.14	11.7	151
18P0.14YCY	18 x 2 x 0.14	18	0.14	12.3	166
20P0.14YCY	20 x 2 x 0.14	20	0.14	13.1	187
25P0.14YCY	25 x 2 x 0.14	25	0.14	14.6	223
36P0.14YCY	36 x 2 x 0.14	36	0.14	16.7	301
37P0.14YCY	37 x 2 x 0.14	37	0.14	16.7	307
40P0.14YCY	40 x 2 x 0.14	40	0.14	17.4	333
50P0.14YCY	50 x 2 x 0.14	50	0.14	19.6	405
1P0.25YCY	1 x 2 x 0.25	1	0.25	4.6	28
2P0.25YCY	2 x 2 x 0.25	2	0.25	6.5	47
3P0.25YCY	3 x 2 x 0.25	3	0.25	6.8	53
4P0.25YCY	4 x 2 x 0.25	4	0.25	7.5	66
5P0.25YCY	5 x 2 x 0.25	5	0.25	8.2	77
7P0.25YCY	7 x 2 x 0.25	7	0.25	8.9	101
9P0.25YCY	9 x 2 x 0.25	9	0.25	10.8	131
10P0.25YCY	10 x 2 x 0.25	10	0.25	11.3	142
12P0.25YCY	12 x 2 x 0.25	12	0.25	11.7	160
14P0.25YCY	14 x 2 x 0.25	14	0.25	12.3	180
16P0.25YCY	16 x 2 x 0.25	16	0.25	13.1	206
18P0.25YCY	18 x 2 x 0.25	18	0.25	13.9	228
20P0.25YCY	20 x 2 x 0.25	20	0.25	14.7	251
25P0.25YCY	25 x 2 x 0.25	25	0.25	16.3	301

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36P0.25YCY	36 x 2 x 0.25	36	0.25	18.7	410
37P0.25YCY	37 x 2 x 0.25	37	0.25	18.7	418
40P0.25YCY	40 x 2 x 0.25	40	0.25	19.5	453
50P0.25YCY	50 x 2 x 0.25	50	0.25	22.2	567
1P0.34YCY	1 x 2 x 0.34	1	0.34	5.0	33
2P0.34YCY	2 x 2 x 0.34	2	0.34	6.8	53
3P0.34YCY	3 x 2 x 0.34	3	0.34	7.2	61
4P0.34YCY	4 x 2 x 0.34	4	0.34	7.9	76
5P0.34YCY	5 x 2 x 0.34	5	0.34	8.6	89
7P0.34YCY	7 x 2 x 0.34	7	0.34	9.4	119
9P0.34YCY	9 x 2 x 0.34	9	0.34	11.4	153
10P0.34YCY	10 x 2 x 0.34	10	0.34	12.0	166
12P0.34YCY	12 x 2 x 0.34	12	0.34	12.5	194
14P0.34YCY	14 x 2 x 0.34	14	0.34	13.1	218
16P0.34YCY	16 x 2 x 0.34	16	0.34	13.9	244
18P0.34YCY	18 x 2 x 0.34	18	0.34	14.7	270
20P0.34YCY	20 x 2 x 0.34	20	0.34	15.5	298
25P0.34YCY	25 x 2 x 0.34	25	0.34	17.3	357
36P0.34YCY	36 x 2 x 0.34	36	0.34	19.9	490
37P0.34YCY	37 x 2 x 0.34	37	0.34	19.9	500
40P0.34YCY	40 x 2 x 0.34	40	0.34	20.7	543
50P0.34YCY	50 x 2 x 0.34	50	0.34	23.5	679
1P0.5YCY	1 x 2 x 0.5	1	0.5	5.8	44
2P0.5YCY	2 x 2 x 0.5	2	0.5	7.8	70
3P0.5YCY	3 x 2 x 0.5	3	0.5	8.2	81
4P0.5YCY	4 x 2 x 0.5	4	0.5	9.0	101
5P0.5YCY	5 x 2 x 0.5	5	0.5	9.9	120
6P0.5YCY	6 x 2 x 0.5	6	0.5	10.8	155
7P0.5YCY	7 x 2 x 0.5	7	0.5	10.8	162
8P0.5YCY	8 x 2 x 0.5	8	0.5	12.4	196
9P0.5YCY	9 x 2 x 0.5	9	0.5	13.4	214
10P0.5YCY	10 x 2 x 0.5	10	0.5	14.0	233
12P0.5YCY	12 x 2 x 0.5	12	0.5	14.5	266
14P0.5YCY	14 x 2 x 0.5	14	0.5	15.3	301

Technical Data Sheet – LiYCY (TP) Control Cable - PVC

Part Code	Cable Description	No. Of Pairs	Nom. Conductor Size (mm ²)	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)
16P0.5YCY	16 x 2 x 0.5	16	0.5	16.2	337
18P0.5YCY	18 x 2 x 0.5	18	0.5	17.1	374
20P0.5YCY	20 x 2 x 0.5	20	0.5	18.1	406
25P0.5YCY	25 x 2 x 0.5	25	0.5	20.2	498
36P0.5YCY	36 x 2 x 0.5	36	0.5	23.4	701
37P0.5YCY	37 x 2 x 0.5	37	0.5	23.4	721
40P0.5YCY	40 x 2 x 0.5	40	0.5	24.4	770
1P0.75YCY	1 x 2 x 0.75	1	0.75	6.2	53
2P0.75YCY	2 x 2 x 0.75	2	0.75	8.6	87
3P0.75YCY	3 x 2 x 0.75	3	0.75	9.0	103
4P0.75YCY	4 x 2 x 0.75	4	0.75	9.9	130
5P0.75YCY	5 x 2 x 0.75	5	0.75	10.9	155
6P0.75YCY	6 x 2 x 0.75	6	0.75	11.9	196
7P0.75YCY	7 x 2 x 0.75	7	0.75	11.9	209
8P0.75YCY	8 x 2 x 0.75	8	0.75	13.6	250
9P0.75YCY	9 x 2 x 0.75	9	0.75	14.8	277
10P0.75YCY	10 x 2 x 0.75	10	0.75	15.5	302
12P0.75YCY	12 x 2 x 0.75	12	0.75	16.1	346
14P0.75YCY	14 x 2 x 0.75	14	0.75	16.9	385
16P0.75YCY	16 x 2 x 0.75	16	0.75	17.9	442
18P0.75YCY	18 x 2 x 0.75	18	0.75	19.0	486
20P0.75YCY	20 x 2 x 0.75	20	0.75	20.1	535
25P0.75YCY	25 x 2 x 0.75	25	0.75	22.6	678
1P1.0YCY	1 x 2 x 1.0	1	1.0	6.5	62
2P1.0YCY	2 x 2 x 1.0	2	1.0	9.2	104
3P1.0YCY	3 x 2 x 1.0	3	1.0	9.7	124
4P1.0YCY	4 x 2 x 1.0	4	1.0	10.7	158
5P1.0YCY	5 x 2 x 1.0	5	1.0	11.7	199
7P1.0YCY	7 x 2 x 1.0	7	1.0	13.0	254
9P1.0YCY	9 x 2 x 1.0	9	1.0	16.0	335
10P1.0YCY	10 x 2 x 1.0	10	1.0	16.7	373
12P1.0YCY	12 x 2 x 1.0	12	1.0	17.3	430
14P1.0YCY	14 x 2 x 1.0	14	1.0	18.3	484
16P1.0YCY	16 x 2 x 1.0	16	1.0	19.4	546

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Part Code	Cable Description	No. Of Pairs	Nom. Conductor Size (mm ²)	Nom. Cable Diameter (mm)	Nom. Cable Weight (kg/km)
18P1.0YCY	18 x 2 x 1.0	18	1.0	20.5	608
20P1.0YCY	20 x 2 x 1.0	20	1.0	21.9	681
25P1.0YCY	25 x 2 x 1.0	25	1.0	24.4	839
1P1.5YCY	1 x 2 X 1.5	1	1.5	7.2	75
2P1.5YCY	2 x 2 x 1.5	2	1.5	10.7	137
3P1.5YCY	3 x 2 x 1.5	3	1.5	11.3	164
4P1.5YCY	4 x 2 x 1.5	4	1.5	12.6	215
5P1.5YCY	5 x 2 x 1.5	5	1.5	13.9	258
7P1.5YCY	7 x 2 x 1.5	7	1.5	15.2	345
9P1.5YCY	9 x 2 x 1.5	9	1.5	18.8	449
10P1.5YCY	10 x 2 x 1.5	10	1.5	19.7	494
12P1.5YCY	12 x 2 x 1.5	12	1.5	20.5	594
14P1.5YCY	14 x 2 x 1.5	14	1.5	21.8	674
16P1.5YCY	16 x 2 x 1.5	16	1.5	23.0	745
18P1.5YCY	18 x 2 x 1.5	18	1.5	24.4	831
20P1.5YCY	20 x 2 x 1.5	20	1.5	25.9	919
1P2.5YCY	1 x 2 x 2.5	1	2.5	8.3	105
2P2.5YCY	2 x 2 x 2.5	2	2.5	12.5	198
3P2.5YCY	3 x 2 x 2.5	3	2.5	13.2	241
4P2.5YCY	4 x 2 x 2.5	4	2.5	14.6	310
5P2.5YCY	5 x 2 x 2.5	5	2.5	16.1	393
7P2.5YCY	7 x 2 x 2.5	7	2.5	17.7	516
9P2.5YCY	9 x 2 x 2.5	9	2.5	22.1	663
10P2.5YCY	10 x 2 x 2.5	10	2.5	23.2	748
12P2.5YCY	12 x 2 x 2.5	12	2.5	24.0	866
14P2.5YCY	14 x 2 x 2.5	14	2.5	25.4	990
16P2.5YCY	16 x 2 x 2.5	16	2.5	26.9	1119
18P2.5YCY	18 x 2 x 2.5	18	2.5	28.5	1235

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Sheath / Jacket Colour

Colour	Colour Code
1) Grey (Default RAL = 7032)	F2V
2) Black	010
3) Blue	006
4) Orange	003
5) Violet	007

Packaging

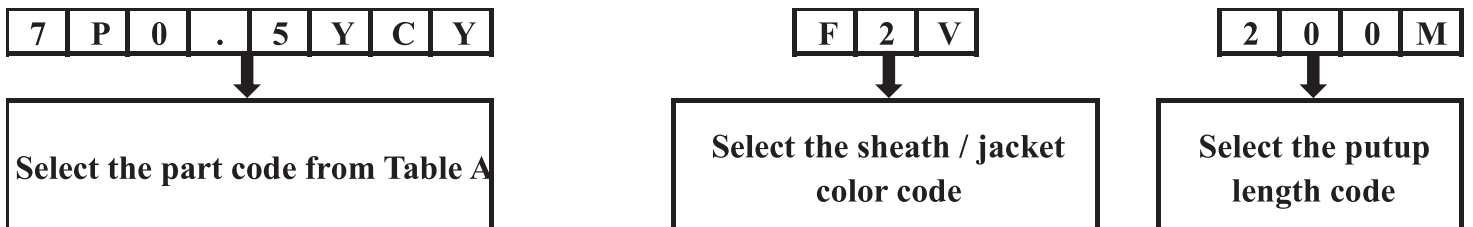
*Belden can offer these cables with various packing options like coiled, plastic or wooden reels. This will be decided at the discretion of Belden based on the cable design and structure.

Put-up Length

Putup Length	Putup Length Code
1) 100 Meters	100M
2) 200 Meters*	200M
3) 300 Meters*	300M

*Applicable only for certain part codes, please check with Belden for more information.

Stock Code Selection Procedure:



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7	P	0	.	5	Y	C	Y
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F	2	V	2	0	0	M
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Cable Stock Code = 7P0.5YCY F2V200M

Belden MachFlex LiYCY(TP) Cables

