

Flexible screened PVC cable, for safe signal transmission.

BASED ON: EN 50525 (for 300/500 V cables) / IEC 60502-1 (for 0,6/1 kV cables).



E<sub>ca</sub>  
C<sub>ca</sub>

## APPLICATION

Screenflex® 110/200 LiYCY VC4V-K is a screened control cable. It is used in all types of signal transmission connections where the voltage induced by an exterior electromagnetic field may affect the signal transmitted.

Its most common applications are control circuits, electronic equipment connections, computer systems, etc.

## CONSTRUCTION

### Conductor

Electrolytic annealed copper, class 5 (flexible) according to EN 60228 and IEC 60228.

### Insulation

Flexible PVC type T12 according to EN 50363-3 and type PVC/A according to IEC 60502-1.

The standard identification of insulated conductors according to HD 308 and EN 50334 is the following:

1 x	Natural
2 x	Blue + Brown
3 G	Blue + Brown + Green/Yellow
3 x	Brown + Black + Grey
4 G	Brown + Black + Grey + Green/Yellow
4 x	Brown + Black + Grey + Blue
5 G	Brown + Black + Grey + Green/Yellow + Blue
6 or more	Black numbered + Green/Yellow.

Other identifications (JZ, OZ, J, O) are available on request.

### Screen

Aluminium-polyester tape screen with overlapping tinned copper braid, ensuring full screening coverage.

### Outer sheath

Flexible PVC type TM2 according to EN 50363-4-1 and type ST1 according to IEC 60502-1.

Black or grey colour (grey for fire non-propagation).

The ripcord allows you to gently tear the outer-sheath and remove it without damaging the screen.

## CHARACTERISTICS



### Electrical performance

Low voltage: 300/500 V. (up to 1,5 mm<sup>2</sup>).  
0,6/1 kV (from 2,5mm<sup>2</sup> onwards).



### Thermal performance

Maximum conductor temperature: 70°C.  
Maximum short-circuit temperature: 160°C (max. 5 s).  
Minimum service temperature: -40°C (static, with protection).



### Fire performance

Flame non-propagation according to EN 60332-1 / IEC 60332-1.  
Fire non-propagation according to EN 60332-3 / IEC 60332-3 (only grey outer sheath).

Reaction to fire CPR according to EN 50575:

C<sub>ca</sub> -s2, d1, a3 (grey outer sheath 300/500 V)

C<sub>ca</sub> -s3, d1, a3 (grey outer sheath 0,6/1 kV).

E<sub>ca</sub> (black outer sheath).

Low halogen emission. Chlorine < 15%.



### Mechanical performance

Minimum bending radius: 5x cable diameter.  
Impact resistance: AG2 Medium severity.



### Environmental performance

Chemical & Oil resistance: Good.  
UV Resistant according to UNE 211605.  
Water resistance: AD5 Jets.

## STANDARDS / COMPLIANCE



### Based on

EN 50525 / IEC 60502-1



### Standards and approvals

RoHS / CE



### CPR (Construction Products Regulation)

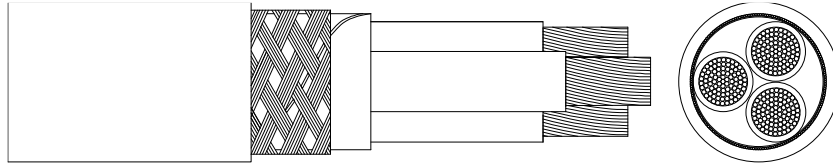
C<sub>ca</sub> -s2, d1, a3 (grey outer sheath 300/500 V)

C<sub>ca</sub> -s3, d1, a3 (grey outer sheath 0,6/1 kV)

E<sub>ca</sub> (black outer sheath).



### DIMENSIONS & ADMISSIBLE INTENSITIES



Screenflex LiYCY 110				
Cross-section (mm <sup>2</sup> )	Diameter (mm)	Weight (kg/km)	Open air (A) <sup>1</sup>	Voltage drop (V/A · km) <sup>2</sup>
2 x 0,75	6,2	55	6	62,4
2 x 1	6,3	60	10	46,8
2 x 1,5	7,3	75	16	31,9
3 G 0,75	6,5	65	6	62,4
3 G 1	6,6	70	10	46,8
3 G 1,5	7,7	95	16	31,9
4 G 0,75	6,9	75	6	62,4
4 G 1	7,0	85	10	46,8
4 G 1,5	8,4	120	16	31,9
5 G 0,75	7,4	90	6	62,4
5 G 1	7,8	105	10	46,8
5 G 1,5	9,5	150	16	31,9
6 G 0,75	7,9	105	6	62,4
6 G 1	8,3	125	10	46,8
6 G 1,5	10,2	175	16	31,9
7 G 0,75	8,0	110	6	62,4
7 G 1	8,3	130	10	46,8
7 G 1,5	10,2	190	16	31,9
8 G 0,75	8,7	125	6	62,4
8 G 1	9,3	155	10	46,8
8 G 1,5	11,0	215	16	31,9
10 G 0,75	9,7	150	6	62,4
10 G 1	10,3	185	10	46,8
10 G 1,5	12,5	265	16	31,9
12 G 0,75	10,3	170	6	62,4
12 G 1	10,8	210	10	46,8
12 G 1,5	12,9	300	16	31,9
14 G 0,75	10,7	195	6	62,4
14 G 1	11,1	235	10	46,8
14 G 1,5	13,7	340	16	31,9
16 G 0,75	11,4	220	6	62,4
16 G 1	12,0	270	10	46,8
16 G 1,5	14,5	370	16	31,9
19 G 0,75	12,0	245	6	62,4
19 G 1	12,8	310	10	46,8
19 G 1,5	15,4	450	16	31,9
24 G 0,75	13,4	305	6	62,4
24 G 1	14,2	380	10	46,8
24 G 1,5	17,5	555	16	31,9
30 G 0,75	14,4	380	6	62,4
30 G 1	15,5	465	10	46,8
30 G 1,5	19,0	680	16	31,9
37 G 1	16,9	560	10	46,8
37 G 1,5	20,5	815	16	31,9
52 G 1	19,4	730	10	46,8
61 G 1	20,5	835	10	46,8

<sup>1</sup> One cable with adequate ventilation and ambient temperature of 30 °C according to EN 50565-1.

<sup>2</sup> At maximum conductor temperature and cosφ=1.

For all cables are supposed a single-phase circuit where not all conductors are fully charged.

Screenflex LiYCY 200

Cross-section (mm <sup>2</sup> )	Diameter (mm)	Weight (kg/km)	Open air (A) <sup>3</sup>	Buried (A) <sup>4</sup>	Voltage drop (V/A · km) <sup>5</sup>
1 x 10	11,7	225	60	50	3,97
1 x 16	12,6	290	82	64	2,51
1 x 25	14,5	405	110	82	1,62
1 x 35	15,6	510	137	98	1,15
1 x 50	17,5	675	167	116	0,802
1 x 70	19,6	900	216	143	0,565
1 x 95	21,7	1.140	264	169	0,428
1 x 120	23,3	1.395	308	192	0,335
1 x 150	25,6	1.715	356	217	0,268
1 x 185	27,4	2.010	409	243	0,220
1 x 240	31,4	2.650	485	280	0,166
1 x 300	34,3	3.255	561	316	0,133
2 x 2,5	8,6	110	30	29	19,2
2 x 4	11,4	180	40	37	11,9
2 x 6	12,5	225	51	46	7,92
2 x 10	15,2	350	70	60	4,58
2 x 16	17,5	485	94	78	2,90
2 x 25	21,4	670	119	99	1,87
2 x 35	24,2	895	148	119	1,33
3 G 2,5	9,4	145	30	29	19,2
3 G 4	11,7	225	40	37	11,9
3 G 6	12,9	285	51	46	7,92
3 G 10	16,1	450	70	60	4,58
3 x 16	18,7	630	80	64	2,51
3 x 25	23,1	965	101	82	1,62
3 x 35	25,2	1.255	126	98	1,15
3 x 50	29,6	1.745	153	116	0,802
3 x 70	33,6	2.360	196	143	0,565
4 x 2,5	10,2	180	25	24	16,6
4 x 4	12,6	275	34	30	10,3
4 x 6	14,4	360	43	38	6,86
4 x 10	17,5	570	60	50	3,97
4 x 16	20,1	815	80	64	2,51
4 x 25	24,5	1.225	101	82	1,62
4 x 35	28,2	1.655	126	98	1,15
4 x 50	32,3	2.270	153	116	0,802
4 x 70	37,5	3.105	196	143	0,565
4 x 95	42,6	4.020	238	169	0,428
5 G 2,5	11,2	220	25	24	16,6
5 G 4	14,3	340	34	30	10,3
5 G 6	16,0	450	43	38	6,86
5 G 10	19,6	725	60	50	3,97
5 G 16	22,3	1.030	80	64	2,51
5 G 25	28,1	1.565	101	82	1,62
5 G 35	31,3	2.100	126	98	1,15
6 G 2,5	12,4	255	30	29	19,2
7 G 2,5	12,5	275	30	29	19,2
10 G 2,5	14,9	375	30	29	19,2
12 G 2,5	15,6	445	30	29	19,2
14 G 2,5	16,9	505	30	29	19,2
16 G 2,5	17,8	575	30	29	19,2
19 G 2,5	18,9	665	30	29	19,2
24 G 2,5	21,4	825	30	29	19,2
27 G 2,5	22,4	925	30	29	19,2
30 G 2,5	23,3	1.015	30	29	19,2
37 G 2,5	25,5	1.280	30	29	19,2

<sup>3</sup> Reference method F for single-core and method E for multicore cables according to IEC 60364-5-52 in open air at 30°C ambient temperature.

<sup>4</sup> Reference method D1 according to IEC 60364-5-52. In a duct buried at 0,7 m depth with soil thermal resistivity of 2,5 K·m/W and 20°C of ground temperature.

<sup>5</sup> At maximum conductor temperature and cosφ=1.

For cables having 2 conductors or 3 cores up to 10 mm<sup>2</sup>, it is supposed a single-phase circuit. For the rest of the cables are supposed a three-phase circuit. For cables having 6 or more conductors, are supposed a single-phase circuit that not all conductors are fully charged.

### SHORT-CIRCUIT CURRENT-CARRYING CAPACITIES

<b>Time (s)</b>	0,1	0,2	0,3	0,5	1	1,5	2	2,5	3
<b>A/mm<sup>2</sup></b>	364	257	210	163	115	94	81	73	66

### CORRECTION FACTORS FOR AIR TEMPERATURE

<b>Air T. (°C)</b>	20	25	30	35	40	45	50	55	60
<b>Factor</b>	1,12	1,06	1	0,94	0,87	0,79	0,71	0,61	0,5

### CORRECTION FACTORS FOR GROUND TEMPERATURE

<b>Ground T. (°C)</b>	10	15	20	25	30	35	40	45	50
<b>Factor</b>	1,10	1,05	1	0,95	0,89	0,84	0,77	0,71	0,63

### CORRECTION FACTORS FOR SOIL THERMAL RESISTIVITY

<b>Moisture degree of soil</b>	<b>Very damp</b>	<b>Slightly damp</b>	<b>Slightly dry</b>	<b>Dry</b>	<b>Very dry</b>
<b>Thermal Resist. (K·m/W)</b>	1	1,5	2	2,5	3
<b>Factor</b>	1,18	1,10	1,05	1	0,96

Other correction factors (for grouping cables, for harmonic currents), that are not in this specification, can be applied. Further information can be found in IEC 60364-5-52.