

# YSLY-SY

Flexible control cable PVC insulated, with inner sheath, steel wire braid and external PVC sheath

**YSLY-SY-JZ:** black numbered cores, with green-yellow core  
**YSLY-SY-OZ:** black numbered cores, without green-yellow core  
**YSLY-SY-JB:** coloured cores, with green-yellow core  
**YSLY-SY-OB:** coloured cores, without green-yellow core

**standards:** DIN VDE 0245

Control cables

Y - PVC insulation  
SL - flexible control cable  
Y - PVC inner sheath  
S - steel wire braid  
Y - PVC sheath



## Technical data

### Temperature range:

- during installation and application with bending: -5 °C up to +50 °C
- fixed installed: -30 °C up to +70 °C

**Nominal voltage:**  $U_0/U = 300/500$  V

**Test voltage:** min. 4000 V

**Insulation resistance:** min. 20 M $\Omega$  x km

**Minimal inner bending radius:** (D = external cable diameter)

- fixed installed: 6D
- at application with bending: 20D

**Behaviour in fire:** Flame retardant (self-extinguishing) cable acc. to **IEC 60332-1** / EN 60332-1 (earlier EN 50265-2-1) / VDE 0482-332-1 (earlier VDE 0482-265-2-1, also DIN VDE 0472 part 804 test method B)

## Construction

1. **Conductor:** bare copper conductor, fine wired stranded, class 5 acc. to IEC 60228 / HD 383 / DIN VDE 0295
2. **Insulation:** PVC compound T12 acc. to HD 21.1 / DIN VDE 0281 or Y12 acc. to VDE 0207.4
  - with green-yellow core, always in external layer ( $\geq 3$  cores) or without green-yellow core
  - core marking: (acc. to DIN VDE 0293) black numbered or coloured
  - cores stranded in layers
3. **Inner sheath:** PVC compound
4. **Armour:** Braid of galvanized steel wires, with min. 75% coverage
5. **External sheath:** PVC compound TM2 acc. to HD 21.1 / DIN VDE 0281 or YM2 acc. to VDE 0207.5
  - **sheath colour:** grey (RAL 7001) or transparent

## Application

Flexible control cable used for signalling and control of static or mobile devices in industry, electric plants or offices. Armour of braided steel wires serves as protection against electromagnetic impacts and control disturbances, and also increases resistance against transversal mechanical loads.

Used for fixed or limitedly mobile installations (not permanently mobile) without tensile loads. Laid in dry or damp premises, outdoor application only under protection against UV-irradiation.

Not intended for laying in ground or water.

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Conductor cross-section	Construction of individual conductor (No. of wires x diameter)	Conductor resistance at 20°C
nominal mm <sup>2</sup>	nominal n x mm	max. Ω/km
0,5	16 x 0,20	39
0,75	24 x 0,20	26
1	32 x 0,20	19,5
1,5	30 x 0,25	13,3
2,5	50 x 0,25	7,98
4	56 x 0,30	4,95
6	84 x 0,30	3,3
10	80 x 0,40	1,91
16	128 x 0,40	1,21
25	200 x 0,40	0,78
35	280 x 0,40	0,524
50	400 x 0,40	0,387
70	356 x 0,50	0,268
95	485 x 0,50	0,193

Dimensions - number of cores x conductor cross-section	External diameter	Cu weight	Cable weight	Packing*
nominal N x mm <sup>2</sup>	approx. mm	kg/km	approx. kg/km	
2 x 0,5	7,8	10	87	CUT
3 x 0,5	8,1	15	95	CUT
4 x 0,5	8,5	19,2	107	CUT
5 x 0,5	9,2	24	123	CUT
7 x 0,5	9,7	33,6	147	CUT
10 x 0,5	11,6	48	196	CUT
12 x 0,5	11,9	58	213	CUT
14 x 0,5	12,5	67	237	CUT
18 x 0,5	13,9	86,4	291	CUT
21 x 0,5	14,9	101	332	CUT
24 x 0,5	15,4	115	410	CUT
25 x 0,5	15,6	120	375	CUT
30 x 0,5	16,5	144	422	CUT
35 x 0,5	17,8	168	503	CUT
40 x 0,5	18,8	192	545	CUT
42 x 0,5	19,1	202	602	CUT
50 x 0,5	20	240	699	CUT
52 x 0,5	20,7	250	680	CUT
61 x 0,5	21,9	293	773	CUT
2 x 0,75	8,2	14,4	97	CUT
3 x 0,75	8,5	21,6	108	CUT
4 x 0,75	9,2	28,8	126	CUT
5 x 0,75	9,7	36	146	CUT
7 x 0,75	10,3	50	172	CUT
9 x 0,75	12,4	65	224	CUT
12 x 0,75	12,9	86	260	CUT
15 x 0,75	14,1	108	315	CUT
18 x 0,75	14,9	130	355	CUT
21 x 0,75	16,2	151	402	CUT
25 x 0,75	17	180	465	CUT
34 x 0,75	19,3	245	596	CUT
41 x 0,75	20,8	296	704	CUT
42 x 0,75	21,1	302	750	CUT
50 x 0,75	22,8	360	832	CUT
61 x 0,75	23,9	439	960	CUT
2 x 1	8,5	19,2	106	CUT
3 x 1	8,8	28,8	119	CUT
4 x 1	9,5	38,4	141	CUT
5 x 1	10,1	48	164	CUT
7 x 1	11	67	200	CUT
8 x 1	12,5	77	234	CUT
9 x 1	13,2	86	260	CUT
12 x 1	13,9	115	309	CUT
14 x 1	14,4	134	345	CUT
18 x 1	15,9	173	415	CUT

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Dimensions - number of cores x conductor cross-section	External diameter	Cu weight	Cable weight	Packing*
nominal N x mm <sup>2</sup>	approx. mm	kg/km	approx. kg/km	
20 x 1	16,8	192	455	CUT
25 x 1	18,1	240	548	CUT
34 x 1	20,5	326	714	CUT
41 x 1	22,2	394	832	CUT
50 x 1	24,2	480	987	CUT
65 x 1	27,2	624	1250	CUT
2 x 1,5	9,3	29	128	CUT
3 x 1,5	9,7	43	151	CUT
4 x 1,5	10,2	58	173	CUT
5 x 1,5	11,1	72	202	CUT
7 x 1,5	11,9	101	248	CUT
8 x 1,5	14	115	301	CUT
9 x 1,5	14,6	130	331	CUT
11 x 1,5	14,8	158	368	CUT
12 x 1,5	15,4	173	396	CUT
14 x 1,5	15,9	202	438	CUT
18 x 1,5	17,6	259	538	CUT
25 x 1,5	20,3	360	713	CUT
32 x 1,5	22,1	461	876	CUT
34 x 1,5	23	490	931	CUT
41 x 1,5	24,9	591	1101	CUT
42 x 1,5	25,2	604,8	1220	CUT
50 x 1,5	27,1	720	1305	CUT
61 x 1,5		878,4	1700	CUT
3 x 2,5	11,1	72	206	CUT
4 x 2,5	12,1	96	249	CUT
5 x 2,5	13,2	120	295	CUT
7 x 2,5	14,3	168	373	CUT
12 x 2,5	18,2	288	586	CUT
14 x 2,5		336	800	CUT
18 x 2,5	21,4	432	823	CUT
25 x 2,5	24,4	600	1093	CUT
30 x 2,5	30,2	720	1698	CUT
34 x 2,5	34	816	1900	CUT
50 x 2,5	40,1	1200	2180	CUT
61 x 2,5	43	1464	3120	CUT
3 x 4	12,7	115	285	CUT
4 x 4	14	154	348	CUT
5 x 4	15,1	192	410	CUT
7 x 4	16,4	269	519	CUT
3 x 6		173	450	CUT
4 x 6	16,2	230	482	CUT
5 x 6	17,7	288	579	CUT
7 x 6	19,2	403	740	CUT
4 x 10	19,4	384	731	CUT
5 x 10	21,5	480	889	CUT
7 x 10	23,4	672	1146	CUT
4 x 16	22,4	614	1384	CUT
5 x 16	24,6	768	1740	CUT
7 x 16	27,2	1075	2165	CUT
4 x 25	32,5	960	1940	CUT
5 x 25	36,5	1200	2460	CUT
4 x 35	37,1	1344	2550	CUT
5 x 35	41,6	1680	3160	CUT
4 x 50	44,2	1920	3500	CUT
4 x 70	53,2	2688	4800	CUT
4 x 95	58,8	3648	6340	CUT

\*) Packing:

CUT = cable in different lengths on drum or reel, possible cutting at required length