

**SY-JZ** flexible, number coded, with steel wire braiding, meter marking**Technical data**

- Special-PVC control cable adapted to DIN VDE 0285-525-2-51 / DIN EN 50525-2-51
- **Temperature range**  
flexing -15°C to +80°C  
fixed installation -40°C to +80°C
- **Nominal voltage** U<sub>0</sub>/U 300/500 V
- **Test voltage** 4000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**  
min. 20 MOhm x km
- **Minimum bending radius**  
flexing 20x cable Ø  
fixed installation 6x cable Ø
- **Radiation resistance**  
up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

**Cable structure**

- Bare copper-conductor, to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation of special PVC compound type Z 7225
- Core identification to DIN VDE 0293 black cores with continuous white numbering
- GN-YE conductor, 3 cores and above in the outer layer
- Cores stranded in layers with optimal lay-length
- Inner sheath of special PVC
- Galvanized steel wire braid
- Outer sheath of special PVC
- Sheath colour transparent
- with meter marking

**Properties**

- Extensively oil resistant, oil-/chemical resistance see table Technical Informations
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

**Tests**

- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

**Note**

- G = with green-yellow conductor  
x = without green-yellow conductor (OZ)
- Further dimensions available on request.
- These cables can be also delivered with coloured conductors (SY-JB).
- Cleanroom qualification tested with analog type. Please note "cleanroom qualified" when ordering.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- screened analogue type:  
**SY-JB**, confer page 64

**Application**

SY-JZ cables are used as measuring and control cables in tool machinery, plant installation, power stations and in data equipment. The braided screen offers best possible protection against mechanical damage. The galvanized coating on the steel wire braiding not only helps protect against corrosion, but also notably improves the soldering performance.

The clear transparent outer sheath gives the cable in addition an optical reevaluation.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
12001	2 x 0,5	7,2	9,6	80,0	20	12027	18 G 0,75	15,0	130,0	388,0	19
12002	3 G 0,5	7,5	14,4	92,0	20	12028	21 G 0,75	15,5	151,0	474,0	19
12003	4 G 0,5	8,1	19,2	102,0	20	12029	25 G 0,75	17,5	180,0	503,0	19
12004	5 G 0,5	8,6	24,0	119,0	20	12030	32 G 0,75	18,9	230,0	644,0	19
12005	7 G 0,5	9,3	33,6	157,0	20	12031	34 G 0,75	19,9	245,0	663,0	19
12006	10 G 0,5	10,7	48,0	205,0	20	12032	41 G 0,75	21,2	296,0	741,0	19
12007	12 G 0,5	11,7	58,0	218,0	20	12033	50 G 0,75	23,2	360,0	925,0	19
12008	14 G 0,5	12,3	67,0	242,0	20	12034	61 G 0,75	25,2	439,0	1082,0	19
12009	18 G 0,5	13,4	86,0	340,0	20	12035	2 x 1	8,2	19,2	112,0	18
12010	21 G 0,5	14,2	101,0	370,0	20	12036	3 G 1	8,5	28,8	132,0	18
12114	25 G 0,5	15,7	120,0	406,0	20	12037	4 G 1	9,2	38,4	143,0	18
12012	30 G 0,5	16,2	144,0	439,0	20	12038	5 G 1	9,9	48,0	166,0	18
12013	35 G 0,5	17,5	168,0	500,0	20	12039	6 G 1	10,5	58,0	22,0	18
12014	40 G 0,5	18,2	192,0	565,0	20	12040	7 G 1	10,5	67,0	227,0	18
12015	42 G 0,5	19,0	202,0	593,0	20	12041	8 G 1	11,4	77,0	277,0	18
12016	50 G 0,5	20,7	240,0	690,0	20	12042	9 G 1	12,8	86,0	295,0	18
12017	61 G 0,5	22,0	293,0	843,0	20	12043	12 G 1	13,4	115,0	340,0	18
12018	80 G 0,5	25,0	384,0	1050,0	20	12044	14 G 1	14,2	134,0	420,0	18
12011	100 G 0,5	27,4	480,0	1240,0	20	12045	18 G 1	15,7	173,0	500,0	18
12019	2 x 0,75	7,9	14,4	98,0	19	12046	20 G 1	16,4	192,0	532,0	18
12020	3 G 0,75	8,2	21,6	103,0	19	12047	25 G 1	18,4	240,0	664,0	18
12021	4 G 0,75	8,7	28,8	122,0	19	12048	34 G 1	20,8	326,0	845,0	18
12022	5 G 0,75	9,5	36,0	142,0	19	12049	36 G 1	20,9	346,0	857,0	18
12112	6 G 0,75	10,1	43,2	180,0	19	12050	41 G 1	22,2	394,0	993,0	18
12023	7 G 0,75	10,1	50,0	185,0	19	12051	50 G 1	24,4	480,0	1112,0	18
12188	8 G 0,75	10,8	57,6	201,0	19	12052	56 G 1	25,5	538,0	1225,0	18
12024	9 G 0,75	11,8	65,0	249,0	19	12053	61 G 1	26,1	586,0	1306,0	18
12113	10 G 0,75	12,0	72,0	252,0	19	12054	65 G 1	26,9	624,0	1504,0	18
12025	12 G 0,75	12,8	86,0	292,0	19	12055	80 G 1	30,0	768,0	1750,0	18
12026	15 G 0,75	14,2	108,0	335,0	19	12056	100 G 1	33,1	960,0	1950,0	18

Continuation ▶

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Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
12057	2 x 1,5	8,8	29,0	129,0	16
12058	3 G 1,5	9,4	43,0	149,0	16
12059	4 G 1,5	10,0	58,0	185,0	16
12060	5 G 1,5	10,9	72,0	205,0	16
12109	6 G 1,5	11,8	87,0	255,0	16
12061	7 G 1,5	11,8	101,0	285,0	16
12062	8 G 1,5	12,7	115,0	340,0	16
12063	9 G 1,5	13,9	130,0	347,0	16
12064	10 G 1,5	14,3	144,0	418,0	16
12065	11 G 1,5	14,8	158,0	430,0	16
12066	12 G 1,5	15,0	173,0	444,0	16
12067	14 G 1,5	15,8	202,0	533,0	16
12068	18 G 1,5	17,4	259,0	593,0	16
12069	25 G 1,5	20,8	360,0	781,0	16
12070	32 G 1,5	22,3	461,0	1015,0	16
12071	34 G 1,5	23,2	490,0	1124,0	16
12072	42 G 1,5	25,2	605,0	1401,0	16
12073	50 G 1,5	27,6	720,0	1583,0	16
12074	61 G 1,5	29,4	878,0	1810,0	16
12075	80 G 1,5	33,8	1152,0	2316,0	16
12076	100 G 1,5	37,2	1440,0	2900,0	16
12077	2 x 2,5	10,2	48,0	185,0	14
12078	3 G 2,5	10,9	72,0	248,0	14
12079	4 G 2,5	11,6	96,0	290,0	14
12080	5 G 2,5	12,9	120,0	347,0	14
12081	7 G 2,5	14,2	168,0	420,0	14
12082	12 G 2,5	17,7	288,0	660,0	14
12083	14 G 2,5	18,8	336,0	750,0	14
12084	18 G 2,5	21,0	432,0	893,0	14
12085	20 G 2,5	22,3	480,0	1169,0	14
12086	25 G 2,5	24,8	600,0	1458,0	14
12087	30 G 2,5	26,0	720,0	1686,0	14
12088	34 G 2,5	28,4	816,0	1869,0	14
12089	50 G 2,5	34,0	1200,0	2200,0	14
12090	61 G 2,5	36,2	1464,0	3000,0	14

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
12115	3 G 4	12,6	117,0	350,0	12
12091	4 G 4	13,7	154,0	428,0	12
12092	5 G 4	14,9	192,0	504,0	12
12093	7 G 4	16,2	269,0	640,0	12
12094	11 G 4	21,2	422,0	1204,0	12
12095	4 G 6	15,8	230,0	571,0	10
12096	5 G 6	17,3	288,0	671,0	10
12097	7 G 6	19,0	403,0	845,0	10
12098	4 G 10	19,4	384,0	943,0	8
12099	5 G 10	21,3	480,0	1065,0	8
12100	7 G 10	23,4	672,0	1551,0	8
12101	4 G 16	23,6	614,0	1360,0	6
12102	5 G 16	26,4	768,0	1740,0	6
12103	7 G 16	29,0	1075,0	2166,0	6
12104	4 G 25	28,5	960,0	2020,0	4
12105	5 G 25	31,7	1200,0	2465,0	4
12106	4 G 35	32,9	1344,0	2570,0	2
12107	5 G 35	36,9	1680,0	3185,0	2
12108	4 G 50	38,8	1920,0	3513,0	1
12116	5 G 50	43,7	2400,0	4248,0	1
12111	4 G 70	46,3	2688,0	4810,0	2/0
12117	5 G 70	50,5	3360,0	5880,0	2/0
12110	4 G 95	51,2	3648,0	6360,0	3/0
12118	5 G 95	56,1	4560,0	8071,0	3/0
12119	4 G 120	56,6	4608,0	8170,0	4/0
12327	4 G 150	64,7	5760,0	9970,0	300 kcmil

Dimensions and specifications may be changed without prior notice. (RA01)



Suitable accessories can be found in Chapter X.

- Cable Gland - HELUTOP® HT-MS-EP4