



Control & signal cables

SY / YSLYSY

Steel Wire Braided Control Cable

300/500 V galvanised steel-wire-braided (GSWB) armoured flexible PVC control cable



DIN VDE 0285

U0/U 300/500 V

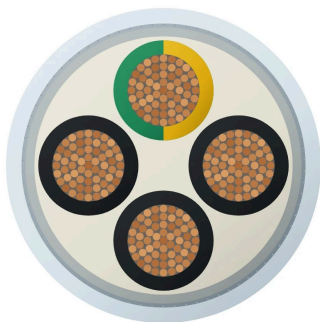
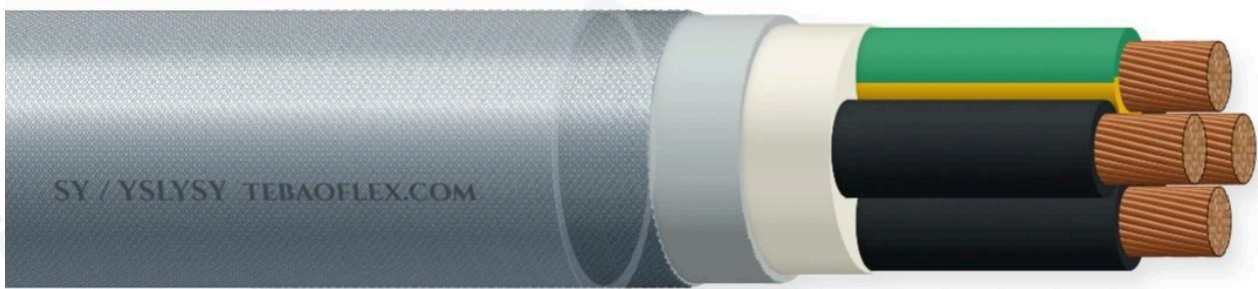
Steel Wire Braid GSWB

Application

Mechanically armoured 300/500 V flexible PVC control cable (SY / YSLYSY) with Class 5 copper conductors, numbered T12 PVC cores, grey PVC inner bedding, galvanised steel wire braid armour (GSWB) and a transparent PVC oversheath.

Typical uses: Metalworking lathes, mills & presses, Automotive body-in-white & stamping, Conveyors, warehouses & plant floors, Bottling, canning & brewery lines, Heavy plant & hydraulic power packs

Construction



Cross-section, not to scale

1	Flexible copper conductor	IEC 60228 Class 5
2	PVC core insulation	EN 50363-3 T12 · EN 50334
3	PVC inner bedding	DIN VDE 0207-5 YM2
4	Galvanised steel wire braid	
5	Transparent PVC oversheath	EN 50363-4-1 TM2 · IEC 60332-1-2

Technical data

Typical values

Rated voltage U0/U	300/500 V AC	AC test voltage	4000 V AC (50 Hz, 5 min)
Insulation resistance	≥ 20 MΩ·km at +20 °C	Conductor stranding	IEC 60228 / DIN VDE 0295 Class 5 bare copper
Protective earth note	Always use the internal GN/YE copper core as the primary protective earth	Temperature, flexing	-5 °C to +70 °C
Temperature, fixed	-40 °C to +80 °C	Max. conductor temperature	+70 °C (+80 °C fixed) continuous operation
Short-circuit temperature	+160 °C max. (up to 5 s)	Min. bending radius, fixed	6 × overall diameter
Min. bending radius, flexing	12.5 × overall diameter	Mechanical protection	Galvanised steel wire braid (GSWB) resists swarf, crushing & tension
Gland termination	Terminate with brass CW/SY mechanical armour clamping glands	Flame retardance	IEC 60332-1-2 / EN 60332-1-2 self-extinguishing · CPR Eca
Oil & coolant resistance	Transparent PVC oversheath protects steel braid from oil & corrosion	Visual inspection	Clear outer jacket allows instant visual check of steel braid integrity
Standards	DIN VDE 0285-525-2-51 / BS EN 50525-2-51 / VDE 0245	Standard packing	Heat-treated ISPM-15 timber drums with sealed cable ends

Sizes

23 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Cores × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
0.75 mm ² Steel-Braided Control Configurations (3 to 12 cores) 5 sizes							
☐ YSLYSY-JZ 3G0.75	3G0.75	18	6.8	7.4	22	86	44
☐ YSLYSY-JZ 4G0.75	4G0.75	18	7.3	7.9	29	102	47
☐ YSLYSY-JZ 5G0.75	5G0.75	18	7.8	8.5	36	121	51
☐ YSLYSY-JZ 7G0.75	7G0.75	18	8.5	9.2	50	148	55
☐ YSLYSY-JZ 12G0.75	12G0.75	18	10.7	11.6	86	232	70
1.0 mm ² Steel-Braided Control Configurations (3 to 12 cores) 5 sizes							
☐ YSLYSY-JZ 3G1.0	3G1.0	17	7.1	7.7	29	98	46
☐ YSLYSY-JZ 4G1.0	4G1.0	17	7.5	8.2	38	118	49
☐ YSLYSY-JZ 5G1.0	5G1.0	17	8.2	8.9	48	140	53
☐ YSLYSY-JZ 7G1.0	7G1.0	17	9.0	9.8	67	178	59
☐ YSLYSY-JZ 12G1.0	12G1.0	17	11.2	12.2	115	275	73
1.5 mm ² Steel-Braided Control Configurations (3 to 18 cores) 6 sizes							
☐ YSLYSY-JZ 3G1.5	3G1.5	16	7.8	8.5	43	125	51
☐ YSLYSY-JZ 4G1.5	4G1.5	16	8.4	9.1	58	152	55
☐ YSLYSY-JZ 5G1.5	5G1.5	16	9.2	10.0	72	184	60
☐ YSLYSY-JZ 7G1.5	7G1.5	16	10.0	10.9	101	235	65
☐ YSLYSY-JZ 12G1.5	12G1.5	16	12.8	13.9	173	372	83
☐ YSLYSY-JZ 18G1.5	18G1.5	16	14.9	16.2	259	520	97
2.5–16 mm ² Steel-Braided Control & Machine Feeders 7 sizes							
☐ YSLYSY-JZ 3G2.5	3G2.5	14	9.2	10.0	72	182	60
☐ YSLYSY-JZ 4G2.5	4G2.5	14	10.0	10.9	96	224	65
☐ YSLYSY-JZ 5G2.5	5G2.5	14	11.0	12.0	120	272	72
☐ YSLYSY-JZ 4G4	4G4	12	11.8	12.8	154	335	77
☐ YSLYSY-JZ 4G6	4G6	10	13.4	14.6	230	465	88

Order designation	Cores × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
☐ YSLYSY-JZ 4G10	4G10	8	16.7	18.2	384	735	109
☐ YSLYSY-JZ 4G16	4G16	6	19.9	21.6	614	1,080	130

– Dimensions and weights are typical values per DIN VDE 0285 / BS EN 50525-2-51. Minimum fixed bending radius shown is 6 × OD.

Electrical & current ratings

8 sizes

Cross-section mm ²	AWG ≈	Max. DC resistance 20°C, Ω/km	Single pair/core 30°C, A	Multi-core bundle 30°C, A
0.75	18	26	12.0	10.0
1	17	19.5	15.0	13.0
1.5	16	13.3	23.0	18.0
2.5	14	7.98	30.0	25.0
4	12	4.95	41.0	34.0
6	10	3.3	53.0	44.0
10	8	1.91	74.0	61.0
16	6	1.21	99.0	82.0

– Current ratings at 30 °C ambient in free air per DIN VDE 0298-4 / DIN VDE 0891-1. Apply grouping derating factors for multi-core control and signal bundles.

Standards and approvals

- ✓ DIN VDE 0285 / BS EN 50525-2-51
- ✓ CE · RoHS 2 (2011/65/EU) · REACH

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/sy-steel-wire-braided-control-cable



Typical values for this cable type, based on DIN VDE 0285 / BS EN 50525-2-51. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.