



Control & signal cables

LiYY

Multicore Signal Cable

DIN VDE 0812 unscreened DIN 47100 colour-coded PVC electronic data & signal cable



DIN VDE 0812

DIN 47100 Colour Code

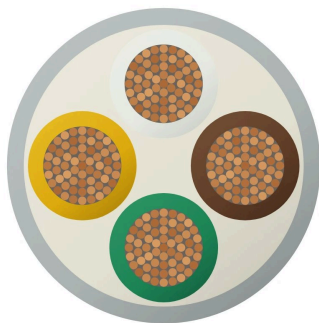
350 V / 500 V Peak

Application

Compact flexible electronic signal and low-frequency data cable built to DIN VDE 0812 with fine-stranded bare copper conductors (0.14–1.5 mm²), thin-wall Y12 PVC core insulation colour-coded to DIN 47100 and a pebble-grey YM2 PVC outer sheath.

Typical uses: Electronic control & measurement gear, PLC I/O & sensor wiring harnesses, Weighing, dosing & laboratory devices, Audio, intercom & access control, Vending, medical & office machines

Construction



Cross-section, not to scale

1	Fine-stranded copper conductor	DIN VDE 0812 / IEC 60228
2	Thin-wall PVC core insulation	DIN VDE 0207-4 Y12 · DIN 47100
3	Short-lay core stranding	DIN VDE 0812
4	PVC outer sheath	DIN VDE 0207-5 YM2 · IEC 60332-1-2

Technical data

Typical values

Peak operating voltage	350 V (0.14 mm²) · 500 V (≥ 0.25 mm²) — not for heavy power mains	AC test voltage (50 Hz)	1200 V (0.14 mm²) · 1500 V (≥ 0.25 mm²)
Mutual capacitance (800 Hz)	Approx. 120 nF/km (core/core)	Inductance	Approx. 0.65 mH/km
Insulation resistance	≥ 200 MΩ·km at +20 °C	Temperature, flexing	−5 °C to +70 °C
Temperature, fixed	−30 °C to +80 °C	Max. conductor temperature	+70 °C in motion · +80 °C fixed
Short-circuit temperature	+150 °C max.	Min. bending radius, fixed	4 × overall diameter
Min. bending radius, flexing	10 × overall diameter	Conductor stranding	0.14 mm²: 18×0.10 mm · 0.25 mm²: 14×0.15 mm · ≥0.5 mm²: IEC 60228 Cl. 5
Compact profile	Semi-rigid YI2 core wall reduces overall cable diameter by ~25 % vs YY	Flame retardance	IEC 60332-1-2 / EN 60332-1-2 self-extinguishing · CPR Eca
Oil & chemical note	Resistant to light oil splash in dry or damp indoor electronics enclosures	Halogen-free alternative	Specify LiHH for low-smoke zero-halogen (LSZH) public buildings
Standards	DIN VDE 0812	Standard packing	Heat-treated ISPM-15 timber drums with sealed cable ends

Sizes

22 standard constructions

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

Order designation	Cores × mm²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
0.14 mm² (26 AWG) Signal Configurations (350 V peak) 4 sizes							
☐ LiYY 2×0.14	2×0.14	26	2.9	3.2	2	13	13
☐ LiYY 4×0.14	4×0.14	26	3.5	3.8	5	21	15
☐ LiYY 8×0.14	8×0.14	26	4.7	5.1	10	38	20
☐ LiYY 12×0.14	12×0.14	26	5.2	5.6	16	52	22
0.25 mm² (24 AWG) Signal Configurations (500 V peak) 5 sizes							
☐ LiYY 2×0.25	2×0.25	24	3.5	3.8	4	18	15
☐ LiYY 4×0.25	4×0.25	24	4.0	4.3	9	28	17
☐ LiYY 7×0.25	7×0.25	24	4.7	5.1	16	44	20
☐ LiYY 12×0.25	12×0.25	24	6.2	6.7	28	74	27
☐ LiYY 25×0.25	25×0.25	24	8.7	9.5	60	146	38
0.34 mm² (22 AWG) Signal Configurations (500 V peak) 4 sizes							
☐ LiYY 2×0.34	2×0.34	22	3.9	4.2	6	22	17
☐ LiYY 4×0.34	4×0.34	22	4.4	4.8	13	35	19
☐ LiYY 8×0.34	8×0.34	22	5.9	6.4	26	66	26
☐ LiYY 12×0.34	12×0.34	22	6.8	7.4	39	95	30
0.50 mm² (20 AWG) Signal Configurations (500 V peak) 4 sizes							
☐ LiYY 2×0.5	2×0.5	20	4.3	4.7	9	29	19
☐ LiYY 4×0.5	4×0.5	20	5.0	5.4	19	46	22
☐ LiYY 7×0.5	7×0.5	20	6.0	6.5	33	75	26
☐ LiYY 12×0.5	12×0.5	20	8.0	8.7	57	128	35
0.75–1.5 mm² Signal & Low-Power Control Configurations 5 sizes							
☐ LiYY 4×0.75	4×0.75	18	5.5	6.0	28	63	24
☐ LiYY 7×0.75	7×0.75	18	6.7	7.3	50	102	29
☐ LiYY 12×0.75	12×0.75	18	8.8	9.6	86	168	38

Order designation	Cores × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
☐ LiYY 4×1.0	4×1.0	17	5.9	6.4	38	77	26
☐ LiYY 4×1.5	4×1.5	16	6.6	7.2	57	104	29

– Dimensions and weights are typical values per DIN VDE 0812 / DIN 47100. Minimum fixed bending radius shown is 4 × OD.

Electrical & current ratings

7 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
0.14	26	138	2.0	1.5
0.25	24	79	4.0	3.0
0.34	22	57	5.0	4.0
0.5	20	39	9.0	6.0
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

– 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 0812 / DIN 47100

✓ 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/liyy-multicore-signal-cable



Typical values for this cable type, based on DIN VDE 0812 / DIN 47100. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.