

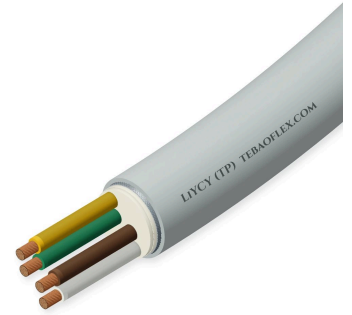


Control & signal cables

LiYCY (TP)

Screened Twisted-Pair Cable

DIN VDE 0812 tinned-copper braid screened twisted-pair PVC electronic signal cable



DIN VDE 0812

Twisted Pairs (TP)

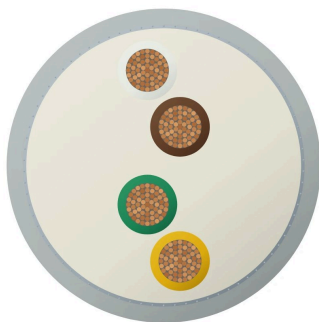
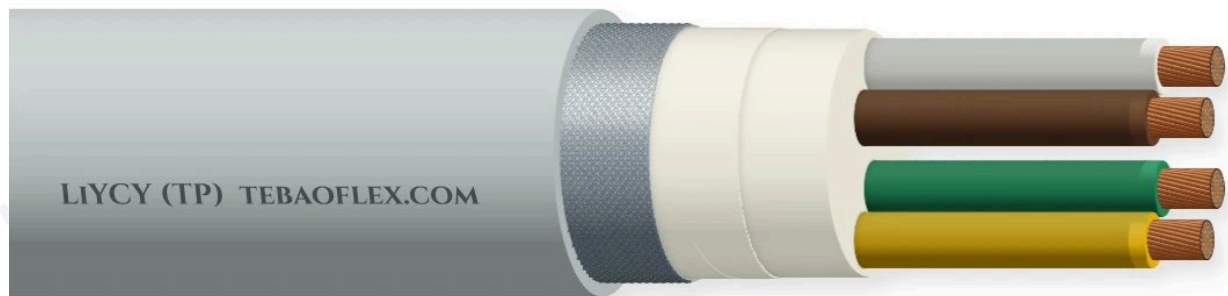
Tinned-Cu Screen $\geq 80\%$

Application

Twisted-pair EMC-screened electronic data and signal cable to DIN VDE 0812 ($n \times 2 \times \text{mm}^2$). Balanced pair lay lengths decouple adjacent differential channels while the $\geq 80\%$ tinned-copper wire braid blocks external interference.

Typical uses: Incremental & SSI encoder feedback, Strain-gauge load cells & weighing bridges, Multi-channel 4–20 mA / 0–10 V analog I/O, RS-422 / RS-232 industrial serial links, Test benches & automated inspection cells

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	Twisted-pair stranding (TP)	DIN VDE 0812
4	PET tape + tinned-copper braid (C)	DIN VDE 0812 · EN 55011 EMC
5	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)

Mutual capacitance (800 Hz) Approx. 120 nF/km (core/core) · approx. 160 nF/km (core/screen)

Inductance Approx. 0.65 mH/km

Temperature, flexing -5 °C to +70 °C

Max. conductor temperature +70 °C in motion · +80 °C fixed

Min. bending radius, fixed 6 × overall diameter

Pair construction 2 cores twisted into a pair (TP); pairs stranded in concentric layers

Flame retardance IEC 60332-1-2 / EN 60332-1-2 self-extinguishing · CPR Eca

Standards DIN VDE 0812

AC test voltage (50 Hz) 1200 V (0.14 mm²) · 1500 V (≥ 0.25 mm²) core/core & core/screen

Near-end crosstalk (NEXT) ≥ 50 dB attenuation at 100 kHz via balanced pair lay

Insulation resistance ≥ 200 MΩ·km at +20 °C

Temperature, fixed -30 °C to +80 °C

Short-circuit temperature +150 °C max.

Min. bending radius, flexing 15 × overall diameter

Screen coverage ≥ 80 % optical coverage tinned-copper wire braid

EMC & crosstalk Balanced pair lay rejects differential magnetic pickup + braid blocks RF interference

Standard packing Heat-treated ISPM-15 timber drums with sealed cable ends

Sizes

21 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
n × 2 × 0.14 mm² Twisted-Pair Screened (350 V peak) 4 sizes							
☐ LiYCY (TP) 2×2×0.14	2×2×0.14	26	4.4	4.8	18	30	29
☐ LiYCY (TP) 3×2×0.14	3×2×0.14	26	4.8	5.2	23	38	31
☐ LiYCY (TP) 4×2×0.14	4×2×0.14	26	5.3	5.8	27	48	35
☐ LiYCY (TP) 8×2×0.14	8×2×0.14	26	6.7	7.3	49	81	44
n × 2 × 0.25 mm² Twisted-Pair Screened (500 V peak) 5 sizes							
☐ LiYCY (TP) 2×2×0.25	2×2×0.25	24	5.2	5.6	25	42	34
☐ LiYCY (TP) 3×2×0.25	3×2×0.25	24	5.5	6.0	32	51	36
☐ LiYCY (TP) 4×2×0.25	4×2×0.25	24	6.2	6.7	38	64	40
☐ LiYCY (TP) 8×2×0.25	8×2×0.25	24	8.1	8.8	70	115	53
☐ LiYCY (TP) 12×2×0.25	12×2×0.25	24	9.5	10.3	100	162	62
n × 2 × 0.34 mm² Twisted-Pair Screened (500 V peak) 3 sizes							
☐ LiYCY (TP) 2×2×0.34	2×2×0.34	22	5.7	6.2	31	52	37
☐ LiYCY (TP) 4×2×0.34	4×2×0.34	22	6.9	7.5	50	82	45
☐ LiYCY (TP) 8×2×0.34	8×2×0.34	22	8.9	9.7	90	146	58
n × 2 × 0.50 mm² Twisted-Pair Screened (500 V peak) 4 sizes							
☐ LiYCY (TP) 2×2×0.5	2×2×0.5	20	6.3	6.9	41	65	41
☐ LiYCY (TP) 3×2×0.5	3×2×0.5	20	6.8	7.4	53	82	44
☐ LiYCY (TP) 4×2×0.5	4×2×0.5	20	7.6	8.3	66	102	50
☐ LiYCY (TP) 8×2×0.5	8×2×0.5	20	10.3	11.2	121	189	67
n × 2 × 0.75–1.0 mm² Twisted-Pair Screened 5 sizes							
☐ LiYCY (TP) 2×2×0.75	2×2×0.75	18	7.1	7.7	54	84	46
☐ LiYCY (TP) 4×2×0.75	4×2×0.75	18	8.5	9.2	89	134	55
☐ LiYCY (TP) 8×2×0.75	8×2×0.75	18	11.2	12.2	168	248	73
☐ LiYCY (TP) 2×2×1.0	2×2×1.0	17	7.5	8.2	68	102	49

Order designation	Cores × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
☐ LiYCY (TP) 4×2×1.0	4×2×1.0	17	9.1	9.9	116	168	59

– Dimensions and weights are typical values per DIN VDE 0812 / DIN 47100. Minimum fixed bending radius shown is 6 × OD.

Electrical & current ratings

6 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

– 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/liycy-tp-screened-twisted-pair-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.