



Control & signal cables

LiHCH

Screened LSZH Signal Cable

DIN VDE 0812 tinned-copper braid screened halogen-free (LSZH) signal cable



DIN VDE 0812

LSZH + Tinned-Cu Screen ≥ 80 %

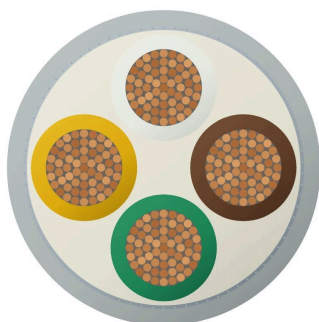
IEC 60754 & IEC 61034

Application

EMC-screened low-smoke zero-halogen ('LSZH') electronic signal cable to DIN VDE 0812 ('LiHCH') with fine-stranded bare copper conductors (0.14–1.5 mm²), DIN 47100 halogen-free cores ('H'), ≥80 % tinned-copper braid screen ('C') and grey HM2 LSZH sheath ('H').

Typical uses: Airports, rail terminals & road tunnels, Hospitals, laboratories & semiconductor fabs, Data centre environmental & power monitoring, Public building BMS & smoke-extraction controls, Marine accommodation & cruise ship electronics

Construction



Cross-section, not to scale

1	Fine-stranded copper conductor	DIN VDE 0812 / IEC 60228
2	Halogen-free LSZH core insulation (H)	DIN VDE 0207-24 · DIN 47100
3	Halogen-free wrapping tape	DIN VDE 0812
4	Tinned-copper braid screen (C)	DIN VDE 0812 · EN 55011 EMC
5	Halogen-free LSZH outer sheath (H)	DIN VDE 0207-24 HM2 · IEC 60754 / 61034

Technical data

Typical values

Peak operating voltage 350 V (0.14 mm²) · 500 V (≥ 0.25 mm²)

Mutual capacitance (800 Hz) Approx. 115 nF/km (core/core) · approx. 155 nF/km (core/screen)

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

Halogen-free & non-corrosive IEC 60754-1 / EN 60754-1 & IEC 60754-2 (pH ≥ 4.3, conductivity ≤ 10 µS/mm)

Flame retardance IEC 60332-1-2 & IEC 60332-3-24 Cat. C bunched vertical flame test

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

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

Transfer impedance (30 MHz) ≤ 250 mΩ/m via ≥ 80 % tinned-copper braid

Temperature, flexing -5 °C to +70 °C

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

Min. bending radius, fixed 6 × overall diameter

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

Low smoke emission IEC 61034-2 / EN 61034-2 (≥ 60 % light transmittance)

Standards DIN VDE 0812 & DIN VDE 0207-24 (HI2/HM2)

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 × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
0.14 mm ² Screened LSZH Signal Configurations (350 V peak) 4 sizes							
☐ LiHCH 2×0.14	2×0.14	26	3.7	4.0	12	22	24
☐ LiHCH 4×0.14	4×0.14	26	4.0	4.4	16	31	26
☐ LiHCH 8×0.14	8×0.14	26	5.2	5.7	26	51	34
☐ LiHCH 12×0.14	12×0.14	26	5.9	6.4	34	69	38
0.25 mm ² Screened LSZH Signal Configurations (500 V peak) 5 sizes							
☐ LiHCH 2×0.25	2×0.25	24	4.2	4.6	16	30	28
☐ LiHCH 4×0.25	4×0.25	24	4.7	5.1	22	41	31
☐ LiHCH 7×0.25	7×0.25	24	5.3	5.8	32	59	35
☐ LiHCH 12×0.25	12×0.25	24	6.7	7.3	51	96	44
☐ LiHCH 25×0.25	25×0.25	24	9.5	10.3	98	184	62
0.34 mm ² Screened LSZH Signal Configurations (500 V peak) 4 sizes							
☐ LiHCH 2×0.34	2×0.34	22	4.6	5.0	19	36	30
☐ LiHCH 4×0.34	4×0.34	22	5.2	5.6	28	49	34
☐ LiHCH 8×0.34	8×0.34	22	6.5	7.1	47	86	43
☐ LiHCH 12×0.34	12×0.34	22	7.5	8.1	66	120	49
0.50 mm ² Screened LSZH Signal Configurations (500 V peak) 4 sizes							
☐ LiHCH 2×0.5	2×0.5	20	5.0	5.4	24	42	32
☐ LiHCH 4×0.5	4×0.5	20	5.6	6.1	36	61	37
☐ LiHCH 7×0.5	7×0.5	20	6.7	7.3	56	95	44
☐ LiHCH 12×0.5	12×0.5	20	8.6	9.4	89	158	56
0.75–1.5 mm ² Screened LSZH Signal & Control Configurations 5 sizes							
☐ LiHCH 2×0.75	2×0.75	18	5.4	5.9	30	52	35
☐ LiHCH 4×0.75	4×0.75	18	6.2	6.7	47	79	40
☐ LiHCH 7×0.75	7×0.75	18	7.5	8.1	77	126	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
☐ LiHCH 4×1.0	4×1.0	17	6.6	7.2	59	96	43
☐ LiHCH 4×1.5	4×1.5	16	7.5	8.1	82	129	49

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

✓ 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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/lihch-screened-lszh-signal-cable



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