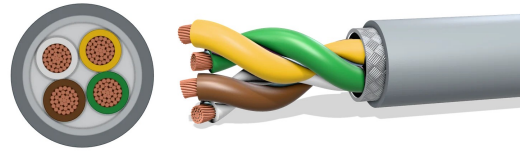


Application

LiHCH-TP is a flexible, screened, halogen-free data and signal cable in which the fine-stranded bare copper conductors are twisted in pairs, insulated with a halogen-free (LSZH) compound, stranded in layers and covered by an overall braid of tinned copper wires under a grey halogen-free (LSZH) outer sheath. The pair twisting reduces crosstalk between circuits, while the braid screen limits the influence of external electrical interference on the transmitted signal. In the event of fire the halogen-free materials develop little smoke and no corrosive gases, which suits public buildings, data centres and control rooms. It is the twisted-pair version of LiHCH and the halogen-free counterpart of LiYCY-TP. The cable is intended for the transmission of low-voltage data, measuring and control signals in dry and damp indoor locations, for fixed installation or occasional flexing without tensile load; it is not intended for outdoor use, direct burial or power distribution.



CONSTRUCTION

Conductor	Fine-stranded bare copper (class 5 acc. to IEC 60228 from 0.5 mm ²).
Insulation	Halogen-free (LSZH) compound.
Stranding	Two cores twisted to a pair; pairs stranded in layers.
Screen	Braid of tinned copper wires over the stranded pairs, optical coverage approx. 85 %.
Sheath	Halogen-free (LSZH) compound, grey.
Core identification	Colour code acc. to DIN 47100, paired.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage	250 V (not for power applications).
Test voltage	800 V (0.14 mm ²); 1200 V (0.25 mm ² and above).
Standard	Manufacturer specification based on DIN VDE 0812; conductor class 5 acc. to IEC 60228 (from 0.5 mm ²); core colours acc. to DIN 47100.
Flame-retardant	Acc. to IEC/EN 60332-1-2.
Halogen-free	Acc. to IEC/EN 60754-1 and IEC/EN 60754-2 (no corrosive gases).
Max. conductor temperature	+70 °C.
Permitted outer cable temperature, fixed	-30 °C to +70 °C.
Permitted outer cable temperature, moved	-5 °C to +70 °C.
Min. bending radius, fixed	10 × outer diameter.
Min. bending radius, moved	15 × outer diameter.
Reaction to fire (CPR)	Flexible connection cable, outside the scope of EN 50575 when used for connecting mobile equipment (halogen-free).

DIMENSIONS & TECHNICAL DATA

Pairs × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
2 × 0.14	138	5.2	39
3 × 0.14	138	5.4	48
4 × 0.14	138	5.5	54
6 × 0.14	138	7.1	85
8 × 0.14	138	7.5	97
10 × 0.14	138	8.3	110
12 × 0.14	138	8.8	142
16 × 0.14	138	9.8	154
25 × 0.14	138	11.7	238
2 × 0.25	79	6	54
3 × 0.25	79	6.4	66
4 × 0.25	79	6.5	81
6 × 0.25	79	8.5	115
8 × 0.25	79	9	130
10 × 0.25	79	9.7	158
12 × 0.25	79	10.9	190
16 × 0.25	79	12	238
2 × 0.5	39	7.7	93
3 × 0.5	39	8.1	129
4 × 0.5	39	8.2	146
6 × 0.5	39	10.8	198
8 × 0.5	39	11.4	259
12 × 0.5	39	14	354
16 × 0.5	39	15.6	459
2 × 0.75	26	8.4	106
3 × 0.75	26	8.8	140
4 × 0.75	26	8.9	179
5 × 0.75	26	10.3	215
6 × 0.75	26	11.7	246
8 × 0.75	26	12.5	305
12 × 0.75	26	15.4	456
16 × 0.75	26	17.2	492
2 × 1	19.5	9.4	142
3 × 1	19.5	9.8	173
4 × 1	19.5	10	212
5 × 1	19.5	11.6	266
2 × 1.5	13.3	10.5	165
3 × 1.5	13.3	11	218
4 × 1.5	13.3	11.1	265
5 × 1.5	13.3	13	310

The first column gives the number of pairs ($n \times 2 \times \text{mm}^2$); outer diameters and weights are the nominal manufacturer values of the leading reference source (weights confirmed identically by a second maker) and the conductor resistance is the nominal value at 20 °C for the conductor size. The 0.34 mm² size is not offered as a twisted pair. All values are indicative and non-binding.