



LIHH Multi-conductor

Multi-pair , Low-Voltage Communication
and Control Cable



IEC 60228 ; EN 50290-2-22 ; IEC 60332-1-2

RoHS , REACH & CE Directives



Ambient installation T°
C range
0 + 50 °C



Operating temp.
-20 + 60 °C



Storage temperature
range
-20 + 70 °C



Flame retardant
IEC 60332-1



Smoke density

Application

LIHH is a **halogen-free, low-smoke flexible control cable** designed for signal transmission, control circuits, and low-voltage applications where fire safety is important. Typical applications in: Control and monitoring circuits in industrial automation, machine tools and manufacturing equipment, control panels, switchboards, and electrical cabinets, HVAC systems (heating, ventilation, and air conditioning), building automation and smart building systems, measurement and instrumentation equipment, security and access control systems, indoor fixed installations in public buildings where low smoke and halogen-free materials are required, such as: hospitals, schools, airports, railway stations, shopping centers, office buildings, hotels.

LIHH is also suitable for fixed installation and occasional flexible movement, intended for dry and damp indoor environments. Not suitable for direct outdoor installation, direct burial, or permanent immersion in water unless additional protection is provided. Key advantages: halogen-free insulation and sheath (LSZH/HFFR), low

smoke emission during fire, reduced emission of corrosive and toxic gases, good flexibility for easy installation, reliable transmission of control and signal voltages, flame-retardant construction according to applicable standards.

LIHH cables are widely used wherever **people, electronic equipment, and fire safety** are a priority, making them an excellent choice for modern commercial and industrial buildings.

LIHH Construction:

Conductor material:

Insulation material:

Core assembly:

Separator:

Outer Sheath:

Sheath color:

Class 5 Fine stranded bare copper

Halogen-free thermoplastic compound
(LSZH/HFFR) HI2

Insulated cores are stranded together in layers

Polyester tape

Halogen-free thermoplastic compound
(LSZH/HFFR) HM2

Pebble gray (RAL 7032)

Core identification:

2 Core:  White  Brown

3 Core:  White  Brown  Green

4 Core:  White  Brown  Green  Yellow

5 Core:  White  Brown  Green  Yellow  Grey

6 Core:  White  Brown  Green  Yellow  Grey  Pink

Larger sizes: 6 Core colours + following colours in addition

7 Core :  Blue

8 Core:  Red

10 Core:  Black  Violet

12 Core:  Grey/Pink  Red/Blue

Technical Data:

Mutual capacitance (core to core) Nom.

(core to screen) Nom.

Inductivity;

Insulation resistance

Rated voltage

Test voltage at 0.14 mm²

at ≥ 0.25 mm²

Oil resistant

Temperature range (for flexible use)

(for stationary use)

Bending radius Ocassional movement)

(Fixed installation)

Other properties

nF/km 120

nF/km 160

approx.. Mh/km 0.65

MΩ x km ≥ 20

Uo/U 300/300 V (up to 0.34 mm²)

300/500 V (0.5 mm² and above)

V 1200

V 1500

EN 50290-2-22 (TM54)

-5°C to +70 °C

-40°C to +80 °C

10 x OD (overall diameter)

6 x OD (overall diameter)

Good UV resistance, chemical resistance
& flexibility

LiHH

Dimensions:

Cable Description	No. of Cores	Nominal Conductor Size (mm ²)	Nominal Cable Diameter (mm)	Nominal Cable Weight (kg/km)
26 AWG (0.14 mm²)				
2 x 0.14	2	0.14	3.2	13
3 x 0.14	3	0.14	3.4	15
4 x 0.14	4	0.14	3.6	17
5 x 0.14	5	0.14	3.9	21
7 x 0.14	7	0.14	4.2	25
8 x 0.14	8	0.14	4.9	33
10 x 0.14	10	0.14	5.2	34
12 x 0.14	12	0.14	5.6	39
24 AWG (0.25 mm²)				
2 x 0.25	2	0.25	3.8	16
3 x 0.25	3	0.25	4.0	20
4 x 0.25	4	0.25	4.3	24
5 x 0.25	5	0.25	4.7	29
6 x 0.25	6	0.25	5.1	34
7 x 0.25	7	0.25	5.2	35
8 x 0.25	8	0.25	6.2	45
10 x 0.25	10	0.25	6.8	51
12 x 0.25	12	0.25	7.0	58
22 AWG (0.34 mm²)				
2 x 0.34	2	0.34	4.2	23
3 x 0.34	3	0.34	4.4	27
4 x 0.34	4	0.34	4.8	33
5 x 0.34	5	0.34	5.5	41
6 x 0.34	6	0.34	5.9	49
7 x 0.34	7	0.34	6.0	51
8 x 0.34	8	0.34	7.1	67
10 x 0.34	10	0.34	7.6	72
12 x 0.34	12	0.34	7.9	83
20 AWG (0.5 mm²)				
2 x 0.5	2	0.5	4.7	27
3 x 0.5	3	0.5	5.0	33
4 x 0.5	4	0.5	5.6	40
5 x 0.5	5	0.5	6.1	50
7 x 0.5	7	0.5	6.9	65
8 x 0.5	8	0.5	8.0	83
10 x 0.5	10	0.5	8.6	92
12 x 0.5	12	0.5	8.9	106
18 AWG (0.75 mm²)				
2 x 0.75	2	0.75	4.9	37
3 x 0.75	3	0.75	5.2	45
4 x 0.75	4	0.75	5.9	58
5 x 0.75	5	0.75	6.4	71
6 x 0.75	6	0.75	7.0	84
7 x 0.75	7	0.75	7.1	89
8 x 0.75	8	0.75	8.2	116
10 x 0.75	10	0.75	9.1	127
12 x 0.75	12	0.75	9.5	146

17 AWG (1 mm ²)				
2 x 1	2	1	5.1	43
3 x 1	3	1	5.4	54
4 x 1	4	1	6.1	70
5 x 1	5	1	6.7	87
6 x 1	6	1	7.3	103
7 x 1	7	1	7.4	110
16 AWG (1.5 mm ²)				
2 x 1.5	2	1.5	5.6	54
3 x 1.5	3	1.5	6.1	70
4 x 1.5	4	1.5	6.7	87
5 x 1.5	5	1.5	7.7	115
6 x 1.5	6	1.5	8.4	136
7 x 1.5	7	1.5	8.5	146



The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.