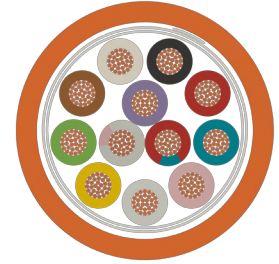


Electronic Control Cables Fire Resistant Cables LIHH (FE180 / PH120)



Application

- Signal transmission.
- At instrumentation and control engineering.
- At industrial electronics.
- Indoor communication systems.
- Indoor sound systems.
- Security and fire alarm systems.
- In places where human life, valuable materials and equipments need to be protected.

Cable Construction

- 1 - Conductor : Stranded electrolytic copper conductor (Class 5) (IEC 60228, EN 60228, DIN VDE 0295)
- 2 - Insulation : Cross-linked polymer compound in ceramic form (DIN 47100)
- 3 - Stranding : In layers
- 4 - Wrapping : Polyester tape, glass yarn tape
- 5 - Outer Jacket : UV resistant halogen-free outer jacket. RAL 2008 (Orange)

Technical Characteristics

Conductor Diameter	Conductor Resistance Ω/km (20 °C)	Insulation Resistance $\text{M}\Omega/\text{km}$ (500 V DC)	Mutual Capacitance nF/km (800 Hz)	Current Carrying Capacity A	Operating Voltage V DC	Test Voltage V (DC, 1 minute)
0.50 mm ²	39	20	120	9	300	2000
0.75 mm ²	26	20	120	12	300	2000
1.00 mm ²	19.5	20	130	15	300	2000
1.5 mm ²	13.3	20	140	18	300	2000
2.5 mm ²	7.98	20	150	26	300	2000

Mechanical Characteristics

Bending Radius	Temperature Range Operating
10xD mm	-40°C~+70°C

Standards

Smoke Density Test	Corrosive Gas Test	Halogen-free Test	Flame Retardancy Test	Flame Propagation Test
IEC 61034-2, VDE 0482-1034-2, BS EN 61034-2	IEC 60754-2, VDE 0482-267-2-3, BS EN 50267-2-3	IEC 60754-1, VDE 0482-267-2-1, EN 50267-2-1, BS EN 50267-2-1	IEC 60332-1-2, VDE 0482-332-1-2, BS EN 60332-1-2	IEC 60332-3-24, VDE 0482-332-3-24, BS EN 60332-3-24
Circuit Integrity Test (FE180)			Circuit Integrity with Shock Test (PH120)	
IEC 60331-23			EN 50200, VDE 0482-200, BS EN 50200	

Notes

Reference Standard: DIN VDE 0812

LIHH (FE180 / PH120)

Part Number	Conductor Count	Conductor Diameter (mm ²)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.512.2.4.3.0050.0.0002	2	0.5	5.4	8.9	34	100/500/1000
3.512.2.4.3.0050.0.0003	3	0.5	5.7	13.3	42	100/500/1000
3.512.2.4.3.0050.0.0004	4	0.5	6.1	17.7	51	100/500/1000
3.512.3.4.3.0050.0.0005	5	0.5	6.8	22.1	64	100/500/1000
3.512.3.4.3.0050.0.0006	6	0.5	7.3	26.5	75	100/500/1000
3.512.3.4.3.0050.0.0007	7	0.5	7.3	30.9	78	100/500/1000
3.512.3.4.3.0050.0.0008	8	0.5	8	35.3	95	100/500/1000
3.512.3.4.3.0050.0.0009	9	0.5	9.2	39.7	109	100/500/1000
3.512.3.4.3.0050.0.0010	10	0.5	9.2	44.1	112	100/500/1000
3.512.3.4.3.0050.0.0012	12	0.5	9.6	52.9	130	100/500/1000
3.512.3.4.3.0050.0.0014	14	0.5	10.1	61.7	148	100/500/1000
3.512.3.4.3.0050.0.0016	16	0.5	10.7	70.5	165	100/500/1000
3.512.3.4.3.0050.0.0018	18	0.5	11.3	79.3	188	100/500/1000
3.512.3.4.3.0050.0.0019	19	0.5	11.3	83.7	191	100/500/1000
3.512.3.4.3.0050.0.0020	20	0.5	11.9	88.1	207	100/500/1000
3.512.3.4.3.0050.0.0021	21	0.5	11.9	92.5	219	100/500/1000
3.512.3.4.3.0050.0.0024	24	0.5	13.2	105.7	243	100/500/1000
3.512.3.4.3.0050.0.0025	25	0.5	13.2	110.1	257	100/500/1000
3.512.3.4.3.0050.0.0027	27	0.5	13.5	118.9	265	100/500/1000

Part Number	Conductor Count	Conductor Diameter (mm ²)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.512.2.4.3.0075.0.0002	2	0.75	5.9	13.3	43	100/500/1000
3.512.2.4.3.0075.0.0003	3	0.75	6.2	19.9	53	100/500/1000
3.512.2.4.3.0075.0.0004	4	0.75	6.8	26.5	67	100/500/1000
3.512.3.4.3.0075.0.0005	5	0.75	7.5	33.1	83	100/500/1000
3.512.3.4.3.0075.0.0006	6	0.75	8.1	39.7	98	100/500/1000
3.512.3.4.3.0075.0.0007	7	0.75	8.1	46.3	103	100/500/1000
3.512.3.4.3.0075.0.0008	8	0.75	8.9	52.9	124	100/500/1000
3.512.3.4.3.0075.0.0009	9	0.75	10.2	59.5	141	100/500/1000
3.512.3.4.3.0075.0.0010	10	0.75	10.2	66.1	146	100/500/1000
3.512.3.4.3.0075.0.0012	12	0.75	10.6	79.3	169	100/500/1000
3.512.3.4.3.0075.0.0014	14	0.75	11.2	92.5	194	100/500/1000
3.512.3.4.3.0075.0.0016	16	0.75	11.8	105.7	216	100/500/1000
3.512.3.4.3.0075.0.0018	18	0.75	12.5	118.9	246	100/500/1000
3.512.3.4.3.0075.0.0019	19	0.75	12.5	125.5	251	100/500/1000
3.512.3.4.3.0075.0.0020	20	0.75	13.1	132.1	272	100/500/1000
3.512.3.4.3.0075.0.0021	21	0.75	13.1	138.7	287	100/500/1000
3.512.3.4.3.0075.0.0024	24	0.75	14.6	158.5	318	100/500/1000
3.512.3.4.3.0075.0.0025	25	0.75	14.6	165.1	336	100/500/1000
3.512.3.4.3.0075.0.0027	27	0.75	14.9	178.3	348	100/500/1000

LIHH (FE180 / PH120)

Part Number	Conductor Count	Conductor Diameter (mm ²)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.512.2.4.3.0100.0.0002	2	1	6.3	16.6	49	100/500/1000
3.512.2.4.3.0100.0.0003	3	1	6.7	24.8	62	100/500/1000
3.512.3.4.3.0100.0.0004	4	1	7.3	33.1	78	100/500/1000
3.512.3.4.3.0100.0.0005	5	1	8	41.3	97	100/500/1000
3.512.3.4.3.0100.0.0006	6	1	8.7	49.6	115	100/500/1000
3.512.3.4.3.0100.0.0007	7	1	8.7	57.8	121	100/500/1000
3.512.3.4.3.0100.0.0008	8	1	9.5	66.1	146	100/500/1000
3.512.3.4.3.0100.0.0009	9	1	11	74.3	167	100/500/1000
3.512.3.4.3.0100.0.0010	10	1	11	82.6	173	100/500/1000
3.512.3.4.3.0100.0.0012	12	1	11.5	99.1	201	100/500/1000
3.512.3.4.3.0100.0.0014	14	1	12.1	115.6	230	100/500/1000
3.512.3.4.3.0100.0.0016	16	1	12.7	132.1	257	100/500/1000
3.512.3.4.3.0100.0.0018	18	1	13.5	148.6	293	100/500/1000
3.512.3.4.3.0100.0.0019	19	1	13.5	156.9	299	100/500/1000
3.512.3.4.3.0100.0.0020	20	1	14.2	165.1	324	100/500/1000
3.512.3.4.3.0100.0.0021	21	1	14.2	173.4	343	100/500/1000
3.512.3.4.3.0100.0.0024	24	1	15.7	198.1	375	100/500/1000
3.512.3.4.3.0100.0.0025	25	1	15.7	206.4	397	100/500/1000
3.512.3.4.3.0100.0.0027	27	1	16.1	222.9	412	100/500/1000
Part Number	Conductor Count	Conductor Diameter (mm ²)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.512.2.4.3.0150.0.0002	2	1.5	6.9	25.8	63	100/500/1000
3.512.2.4.3.0150.0.0003	3	1.5	7.3	38.6	81	100/500/1000
3.512.2.4.3.0150.0.0004	4	1.5	8	51.5	102	100/500/1000
3.512.3.4.3.0150.0.0005	5	1.5	8.8	64.3	128	100/500/1000
3.512.3.4.3.0150.0.0006	6	1.5	9.5	77.2	151	100/500/1000
3.512.3.4.3.0150.0.0007	7	1.5	9.5	90.1	161	100/500/1000
3.512.3.4.3.0150.0.0008	8	1.5	10.5	102.9	193	100/500/1000
3.512.3.4.3.0150.0.0009	9	1.5	12.1	115.8	220	100/500/1000
3.512.3.4.3.0150.0.0010	10	1.5	12.1	128.6	229	100/500/1000
3.512.3.4.3.0150.0.0012	12	1.5	12.6	154.4	267	100/500/1000
3.512.3.4.3.0150.0.0014	14	1.5	13.3	180.1	307	100/500/1000
3.512.3.4.3.0150.0.0016	16	1.5	14	205.8	344	100/500/1000
3.512.3.4.3.0150.0.0018	18	1.5	14.8	231.5	392	100/500/1000
3.512.3.4.3.0150.0.0019	19	1.5	14.8	244.4	401	100/500/1000
3.512.3.4.3.0150.0.0020	20	1.5	15.6	257.2	434	100/500/1000
3.512.3.4.3.0150.0.0021	21	1.5	15.6	270.1	459	100/500/1000
3.512.3.4.3.0150.0.0024	24	1.5	17.4	308.7	508	100/500/1000
3.512.3.4.3.0150.0.0025	25	1.5	17.4	321.5	537	100/500/1000
3.512.3.4.3.0150.0.0027	27	1.5	17.8	347.2	559	100/500/1000

LIHH (FE180 / PH120)

Part Number	Conductor Count	Conductor Diameter (mm ²)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.512.2.4.3.0250.0.0002	2	2.5	8.1	42.9	89	100/500/1000
3.512.2.4.3.0250.0.0003	3	2.5	8.6	64.3	118	100/500/1000
3.512.2.4.3.0250.0.0004	4	2.5	9.6	85.8	153	100/500/1000
3.512.3.4.3.0250.0.0005	5	2.5	10.6	107.2	195	100/500/1000
3.512.3.4.3.0250.0.0006	6	2.5	11.5	128.6	232	100/500/1000
3.512.3.4.3.0250.0.0007	7	2.5	11.5	150.1	248	100/500/1000
3.512.3.4.3.0250.0.0008	8	2.5	12.7	171.5	297	100/500/1000
3.512.3.4.3.0250.0.0009	9	2.5	14.7	192.9	337	100/500/1000
3.512.3.4.3.0250.0.0010	10	2.5	14.7	214.4	353	100/500/1000
3.512.3.4.3.0250.0.0012	12	2.5	15.3	257.2	412	100/500/1000
3.512.3.4.3.0250.0.0014	14	2.5	16.2	300.1	474	100/500/1000
3.512.3.4.3.0250.0.0016	16	2.5	17	343	533	100/500/1000
3.512.3.4.3.0250.0.0018	18	2.5	18	385.8	608	100/500/1000
3.512.3.4.3.0250.0.0019	19	2.5	18	407.3	623	100/500/1000
3.512.3.4.3.0250.0.0020	20	2.5	19	428.7	675	100/500/1000
3.512.3.4.3.0250.0.0021	21	2.5	19	450.1	715	100/500/1000
3.512.3.4.3.0250.0.0024	24	2.5	21.1	514.4	777	100/500/1000
3.512.3.4.3.0250.0.0025	25	2.5	21.1	535.9	830	100/500/1000
3.512.3.4.3.0250.0.0027	27	2.5	21.6	578.7	865	100/500/1000