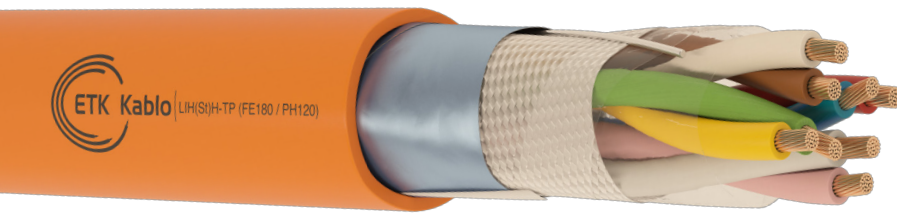


# Electronic Control Cables

## Fire Resistant Cables

### LIH(S†)H-TP (FE180 / PH120)

RoHS REACH 



#### Application

- Signal transmission.
- At instrumentation and control engineering.
- At industrial electronics.
- Computer and office devices.
- 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 : Insulations are stranded into pairs and all pairs are stranded together.
- 4 - Wrapping : Polyester tape, glass yarn tape
- 5 - Screen : Tinned copper earthing wire, Al/PET tape
- 6 - Outer Jacket : UV resistant halogen-free outer jacket. RAL 2008 (Orange)

#### Technical Characteristics

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

## LIH(S)H-TP (FE180 / PH120)

Part Number	Pair Count	Conductor Diameter (mm <sup>2</sup> )	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.546.2.4.3.0050.0.0001	1	0.5	5.5	11	42	100/500/1000
3.546.2.4.3.0050.0.0002	2	0.5	7.3	19.9	68	100/500/1000
3.546.2.4.3.0050.0.0003	3	0.5	8.4	28.7	90	100/500/1000
3.546.2.4.3.0050.0.0004	4	0.5	10.1	37.6	120	100/500/1000
3.546.2.4.3.0050.0.0005	5	0.5	10.6	46.4	136	100/500/1000
3.546.2.4.3.0050.0.0006	6	0.5	11.2	55.2	157	100/500/1000
3.546.2.4.3.0050.0.0007	7	0.5	12.2	64.1	180	100/500/1000
3.546.2.4.3.0050.0.0008	8	0.5	12.6	72.9	197	100/500/1000
3.546.2.4.3.0050.0.0009	9	0.5	13.3	81.8	219	100/500/1000
3.546.2.4.3.0050.0.0010	10	0.5	13.7	90.6	230	100/500/1000
Part Number	Pair Count	Conductor Diameter (mm <sup>2</sup> )	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.546.2.4.3.0075.0.0001	1	0.75	5.9	17.7	51	100/500/1000
3.546.2.4.3.0075.0.0002	2	0.75	7.9	31	84	100/500/1000
3.546.2.4.3.0075.0.0003	3	0.75	9.1	44.2	112	100/500/1000
3.546.2.4.3.0075.0.0004	4	0.75	11	57.5	148	100/500/1000
3.546.2.4.3.0075.0.0005	5	0.75	11.5	70.8	170	100/500/1000
3.546.2.4.3.0075.0.0006	6	0.75	12.2	84	196	100/500/1000
3.546.2.4.3.0075.0.0007	7	0.75	13.2	97.3	225	100/500/1000
3.546.2.4.3.0075.0.0008	8	0.75	13.7	110.6	248	100/500/1000
3.546.2.4.3.0075.0.0009	9	0.75	14.5	123.9	275	100/500/1000
3.546.2.4.3.0075.0.0010	10	0.75	15.1	137.1	299	100/500/1000
Part Number	Pair Count	Conductor Diameter (mm <sup>2</sup> )	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.546.2.4.3.0100.0.0001	1	1	6.2	21	57	100/500/1000
3.546.2.4.3.0100.0.0002	2	1	8.3	37.6	95	100/500/1000
3.546.2.4.3.0100.0.0003	3	1	9.6	54.2	127	100/500/1000
3.546.2.4.3.0100.0.0004	4	1	11.7	70.8	168	100/500/1000
3.546.2.4.3.0100.0.0005	5	1	12.2	87.4	194	100/500/1000
3.546.2.4.3.0100.0.0006	6	1	12.9	103.9	225	100/500/1000
3.546.2.4.3.0100.0.0007	7	1	14	120.5	259	100/500/1000
3.546.2.4.3.0100.0.0008	8	1	14.6	137.1	286	100/500/1000
3.546.2.4.3.0100.0.0009	9	1	15.4	153.7	318	100/500/1000
3.546.2.4.3.0100.0.0010	10	1	16.1	170.3	346	100/500/1000
Part Number	Pair Count	Conductor Diameter (mm <sup>2</sup> )	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.546.2.4.3.0150.0.0001	1	1.5	7.1	30.3	76	100/500/1000
3.546.2.4.3.0150.0.0002	2	1.5	9.3	56.1	122	100/500/1000
3.546.2.4.3.0150.0.0003	3	1.5	10.7	82	167	100/500/1000
3.546.2.4.3.0150.0.0004	4	1.5	13.1	107.8	221	100/500/1000
3.546.2.4.3.0150.0.0005	5	1.5	13.6	133.6	258	100/500/1000
3.546.2.4.3.0150.0.0006	6	1.5	14.5	159.5	299	100/500/1000
3.546.2.4.3.0150.0.0007	7	1.5	15.8	185.3	345	100/500/1000
3.546.2.4.3.0150.0.0008	8	1.5	16.4	211.2	383	100/500/1000
3.546.2.4.3.0150.0.0009	9	1.5	17.3	237	426	100/500/1000
3.546.2.4.3.0150.0.0010	10	1.5	18.1	262.9	465	100/500/1000
Part Number	Pair Count	Conductor Diameter (mm <sup>2</sup> )	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.546.2.4.3.0250.0.0001	1	2.5	8.3	47.5	104	100/500/1000
3.546.2.4.3.0250.0.0002	2	2.5	11	90.6	175	100/500/1000
3.546.2.4.3.0250.0.0003	3	2.5	12.8	133.6	242	100/500/1000
3.546.2.4.3.0250.0.0004	4	2.5	15.6	176.7	318	100/500/1000
3.546.2.4.3.0250.0.0005	5	2.5	16.4	219.8	380	100/500/1000