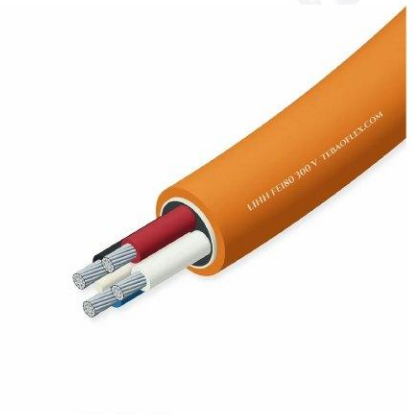
FE180 / PH120 fire-resistant safety cables

LIHH FE180 300 V

Fire-Resistant Halogen-Free Signal Cable

IEC 60331 FE180 orange LSZH fire-alarm & emergency-control signal cable

IEC 60331-21 (FE180) | 300 V · +90 °C | LSZH Halogen-Free



Application

LIHH FE180 300 V combines flexible tinned copper cores, ceramifying silicone fire-barrier insulation, and an orange halogen-free LSZH outer sheath to maintain 180-minute fire-alarm and building-safety signaling.

Typical uses: Hospitals, airports & high-rise towers, Road/rail tunnels & underground metro stations, Emergency sprinkler pumps & smoke-extraction fans, Fire-alarm, voice-evacuation & safety panels

Construction





Cross-section, not to scale

1	**Conductor**	IEC 60228 Class 5 flexible tinned annealed copper · IEC 60228 Class 5
2	**Dielectric / core insulation**	Ceramifying halogen-free fire-barrier silicone insulation · IEC 60331-21 (FE180)
3	**Core assembly & separator**	Concentric cabled core assembly with low-friction fleece/polyester separator tape · IEC 60331-21 (FE180)
4	**Outer sheath**	Safety-orange flame-retardant halogen-free LSZH outer sheath · 180 min Fire Circuit

Technical data

Typical values

Rated voltage	300 V	Test voltage	2 kV AC
Conductor	Tinned Cu · Cl.5	Insulation	Ceramifying halogen-free fire-barrier
Impedance / insulation	≥ 1,000 MΩ·km at 20 °C	Temp. range (fixed)	-40 °C to +90 °C
Temp. range (flexing)	-5 °C to +90 °C	Peak / short-circuit	+160 °C (5 s)
Min. bending radius	10 × OD (fixed)	Flame / fire rating	180 min Fire Circuit
Thermal / chemical	Halogen-Free Low Smoke	Mechanical / special	IEC 60332-3-24 Cat C
Outer finish	Safety-orange flame-retardant		

Sizes

8 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Cores × mm²	Outer Ø ≈ mm	Max. R20 Ω/km	Metal index kg/km	Weight ≈ kg/km	Min. bend R 10×D mm
☐ 2×0.5 mm²	6.2	40.09	10	49	62
☐ 4×0.5 mm²	7.2	40.09	19	74	72
☐ 2×0.75 mm²	6.6	26.73	14	59	66
☐ 4×0.75 mm²	7.8	26.73	29	97	78
☐ 2×1.0 mm²	7.2	20.05	19	74	72
☐ 4×1.0 mm²	8.4	20.05	38	119	84
☐ 2×1.5 mm²	7.8	13.67	29	97	78
☐ 4×1.5 mm²	9.2	13.67	58	161	92

- Conductor DC resistance R20 at 20 °C per IEC 60228 Class 5.
- Minimum bending radius calculated at 10 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- IEC 60331-21 (FE180)
- DIN VDE 0812
- IEC 60754-1/2
- EN 10204 3.1 Factory Test Certificate
- 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
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/lihh-fe180-300v-fire-resistant-halogen-free-signal-cable

Typical values for this cable type, based on IEC 60331-21 (FE180) · DIN VDE 0812 · IEC 60754-1/2. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.