



Linear Heat Detection (LHD) Sensor Cables

SS-LD

Digital Linear Heat Detection Cable

Fixed-temperature digital linear heat detection sensor cable (68 °C / 85 °C / 105 °C / 138



EN 54-28 / UL 521

68 °C to 138 °C Alarm

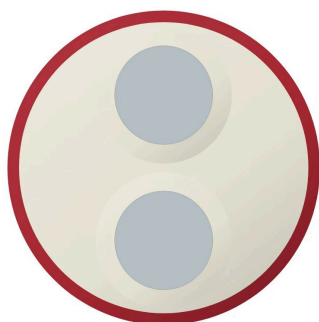
Digital LHD Sensor

Application

SS-LD is a non-resettable digital linear heat detection (LHD) sensor cable per EN 54-28 and UL 521. Two high-tensile spring-steel sensing conductors are insulated with a calibrated heat-sensitive NTC/thermoplastic polymer that softens at its exact rated alarm

Typical uses: Power cable trays & tunnels, Belt conveyors & bulk handling, Cold stores & high-bay racking, Switchgear & battery ESS cabinets, Car parks & road tunnels

Construction



Cross-section, not to scale

1	Spring-steel sensing conductors	EN 54-28
2	Calibrated thermo-reactive polymer	EN 54-28
3	Protective separation tape	EN 54-28
4	Flame-retardant outer jacket	EN 54-28

Technical data

Typical values

Max. operating voltage	42 VDC / 30 VAC	Nominal conductor DC resistance	≈100 Ω/km per core (200 Ω/km loop for distance location)
Dielectric withstand (untriggered)	500 VAC rms for 1 minute	Max. zone length	Up to 2000–3000 m per distance-locating controller zone
Alarm temperature classes	68 °C · 78 °C · 85 °C · 105 °C · 138 °C · 180 °C	Max. continuous ambient temp.	45 °C (68 °C grade) · 65 °C (85 °C grade) · 85 °C (105 °C grade) · 105 °C (138 °C grade)
Min. operating temperature	-40 °C (-60 °C cold-store grade)	Nominal outer diameter	3.6 mm ± 0.2 mm
Min. installation bend radius	50 mm (≈15 × cable OD)	Recommended support clip spacing	0.8 m to 1.2 m using insulated J-clips or Z-brackets
Flame retardancy	IEC 60332-1-2 / UL 1581 VW-1	Humidity & dust immunity	IP67 sealed extruded sheath unaffected by dust or condensation
Standards	EN 54-28 (Non-resettable line-type heat detectors)		

Sizes

12 standard constructions

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

Designation	Alarm Temp & Amb.	Core Ø mm	Outer Ø ≈ mm	Copper kg/km	Total weight ≈ kg/km	Min. bend R fixed mm
SS-LD standard series 12 sizes						
☐ SS-LD-68-PVC (68 °C Digital LHD)	68 °C (Amb ≤45 °C)	2×0.85 mm	3.6	12	22	54
☐ SS-LD-68-LSZH (68 °C LSZH LHD)	68 °C LSZH (Amb ≤45 °C)	2×0.85 mm	3.7	12	24	56
☐ SS-LD-78-PVC (78 °C Digital LHD)	78 °C (Amb ≤55 °C)	2×0.85 mm	3.6	12	22	54
☐ SS-LD-78-LSZH (78 °C LSZH LHD)	78 °C LSZH (Amb ≤55 °C)	2×0.85 mm	3.7	12	24	56
☐ SS-LD-85-PVC (85 °C Digital LHD)	85 °C (Amb ≤65 °C)	2×0.85 mm	3.6	12	22	54
☐ SS-LD-85-LSZH (85 °C LSZH LHD)	85 °C LSZH (Amb ≤65 °C)	2×0.85 mm	3.7	12	24	56
☐ SS-LD-95-PVC (95 °C Digital LHD)	95 °C (Amb ≤70 °C)	2×0.85 mm	3.6	12	22	54
☐ SS-LD-105-PVC (105 °C Digital LHD)	105 °C (Amb ≤85 °C)	2×0.85 mm	3.7	12	23	56
☐ SS-LD-105-LSZH (105 °C LSZH LHD)	105 °C LSZH (Amb ≤85 °C)	2×0.85 mm	3.8	12	25	57
☐ SS-LD-138-HT (138 °C Digital LHD)	138 °C (Amb ≤105 °C)	2×0.85 mm	3.8	12	26	57
☐ SS-LD-180-HT (180 °C Fluoropolymer)	180 °C (Amb ≤150 °C)	2×0.85 mm	3.9	12	29	58
☐ SS-LD-68-4C (Dual-Circuit 68 °C)	68 °C 4-Core Redundant	4×0.85 mm	5.2	24	42	78

– Nominal outer diameters and weights are subject to manufacturing tolerances per EN 54-28 / UL 521.

Electrical data

12 sizes

Alarm Temp & Amb.	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
68 °C (Amb ≤45 °C)	98.000	1	1
68 °C LSZH (Amb ≤45 °C)	98.000	1	1
78 °C (Amb ≤55 °C)	98.000	1	1
78 °C LSZH (Amb ≤55 °C)	98.000	1	1
85 °C (Amb ≤65 °C)	98.000	1	1
85 °C LSZH (Amb ≤65 °C)	98.000	1	1
95 °C (Amb ≤70 °C)	98.000	1	1
105 °C (Amb ≤85 °C)	98.000	1	1
105 °C LSZH (Amb ≤85 °C)	98.000	1	1

Alarm Temp & Amb.	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
138 °C (Amb ≤105 °C)	98.000	1	1
180 °C (Amb ≤150 °C)	98.000	1	1
68 °C 4-Core Redundant	98.000	1	1

– Current ratings apply at +30 °C ambient in free air and +25 °C in enclosed tray/conduit.

Standards and approvals

- ✓ EN 54-28 Compliant
- ✓ UL 521 / FM 3210 Design
- ✓ IEC 60332-1-2 Flame Retardant
- ✓ RoHS 3 Compliant

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/digital-linear-heat-detection-cable



Typical values for this cable type, based on EN 54-28 / UL 521. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.