SafeCable LHD™

Linear Heat Detection Cable

- *Addressable or Conventional*
- *Use with Any Listed Panel*

SAFE LHD Cable™

Data Sheet

Part Numbers: TC155 (68°C), TC172 (78°C) TC190 (88°C), TC220 (105°C)

Features

- **Up to 3,048m (10,000 ft.) of SafeCable per zone**
- **Approved for up to 10.7m (35') spacing**
- **.164 ohms/m (.05 ohms/ft) resistance for twisted pair wire lower than any other type of linear heat detection wire**
- **Lower cost than other types of linear heat detection wire**
- **Compatible with all Fire Alarm Control / Releasing Panel**
- **Use with addressable modules**
- **Multiple alarm temperatures: (C°) 68°, 78°, 88°, 105°, 185° (F°) 155°, 172°, 190°, 220°, 365°**
- **Distance locating available**
- **Can detect anywhere along the entire length of wire**
- **Multiple alarm temperatures combined on the same zone**
- **Total zone length replacement unnecessary after alarm**
- **Longer standard spool lengths means less splicing**
- **Custom lengths available**
- **Suitable for use in Class I, II, or III Division 1, Gas Groups A-G hazardous areas when installed with an FM approved or UL listed intrinsic safety barrier and meets all appropriate local and national codes. For additional details, please refer to the SafeCable Intrinsic Safety Barrier Cut Sheet.**

Description

SafeCable digital linear heat detection (LHD) cable is a combination of advanced polymer and digital technologies that can detect heat anywhere along its entire length. SafeCable is also compatible with any listed addressable or conventional panel.

At the core of SafeCable is a twisted pair of extremely low resistance (.164 ohms/m [.05 ohm/ft.] of twisted cable) tri-metallic conductors, sheathed in new advanced thermal polymers. These polymers are chemically engineered to break down at specific fixed temperatures allowing the twisted conductors to make contact and initiate an alarm at the control panel without any calibration for changes in the ambient temperature. The distance locating option allows the control panel to identify and display the location, in feet or metres from the panel, where the heat source interacted with the detection cable.

The polymer used for the protective outer coating of SafeCable is chemically inert and UV protected. This allows for SafeCable to be used in an extremely wide variety of installations and hazards.

UL C US APPROVED FM CE CSFM

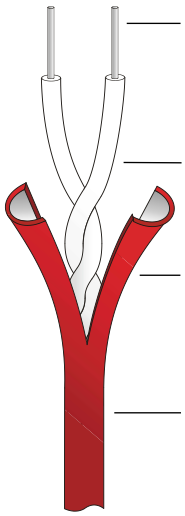
MEA

ISO 9001 Registered

Applications

Use where other types of detection are not practical or where the location of an overheating condition must be known. SafeCable is ideal for aircraft hangars, switchgear, in-rack freezer and cooler storage, archive and warehouse storage, elevator shafts, cooling towers, conveyors, cable trays, cable spreading rooms, terminal rooms, in-cabinet, motors, pumps, generators, tunnels, bridges, parking decks and engine bays.

SafeCable Technology



Tri-Metallic Core:
- Steel - Provides Tensile Strength
- Copper - Increases Conductivity
- Tin - Resists Corrosion

Thermal Reactant Sheathing:
- Advanced Polymers Provide Temperature Specific Activation

Polymer Outer Covering:
- Chemical Resistant
- UV Resistant
- Approved for Outdoor Use

Wire:
- Only 1/8" Diameter
- Flexible for Easy Installation
- Continuous Lengths up to 3,000 ft.

*Also available with Nylon or Polypropylene outer jackets for abrasion and chemical resistance. An optional external Stainless Steel Braid may be used to further protect the SafeCable and/or GuideWire for additional support for long spans.

Maximum Listed Spacing

Temperature Rating	C-UL-US	FM
68°C (155°F)	10.7m (35 ft.)	9m (30 ft.)
78°C (172°F)	10.7m (35 ft.)	9m (30 ft.)
88°C (190°F)	10.7m (35 ft.)	9m (30 ft.)
105°C (220°F)	10.7m (35 ft.)	7.6m (25 ft.)

Maximum Ambient Temperatures

Maximum Ambient Install Temperature	Alarm Temp.	Part Number
Up to 45°C (113°F)	68°C (155°F)	TC155
Up to 50°C (122°F)	78°C (172°F)	TC172
Up to 70°C (158°F)	88°C (190°F)	TC190
Up to 70°C (158°F)	105°C (220°F)	TC220

Specifications - SafeCable

Diameter:	3.2mm (1/8")
Weight:	Nominal 1000 ft./15 lbs. (305m/6.8kg)
Bend Radius:	76.2mm (3")
Max. Voltage Rating:	30 VAC, 42 VDC
Resistance:	.164 ohms/m (.05 ohms/ft.)
Temperature Ratings (°C): (°F):	68°, 78°, 88°, 105° 155°, 172°, 190°, 220°
Sheathing Options:	**PVC**: Corrosive and UV resistant Lead and Cadmium Free **Nylon**: Abrasion resistant Rilsan® Nylon **Polypropylene**: Chemical resistant **Stainless Steel Braid**: Annealed 316 **GuideWire**: Stainless Steel 316, 12AWG
Dielectric Withstand:	500 VDC (UL)
Tensile Strength:	1,700 N/mm^2 (min.)

Optional Distance Locating

The Distance Locating option available for SAFE Fire Detection's SafeCable system allows for identifying where the overheating condition occurred anywhere on the total length of cable in a particular zone. Unit displays the distance from the module to the overheating condition in both feet and metres.

The distance locating option may be used with any listed addressable or conventional system. Any listed 24VDC power source may be used to power the distance locating module.

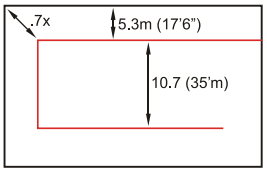
For additional details, please refer to the SafeCable Distance Locating Module (APDL-Z1) cut sheet.

Displays distance to alarm in both feet and metres.

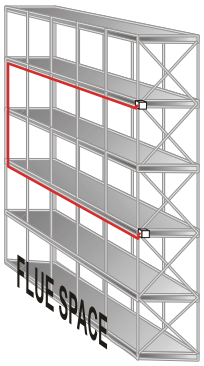
Installation Examples

For more details, please refer to the SafeCable installation manual.

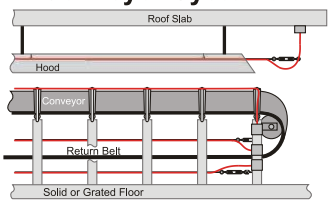
Area Spacing



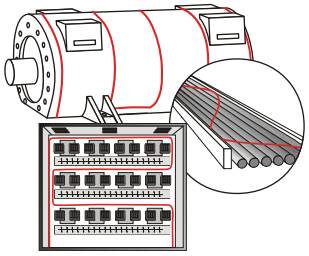
In-Rack



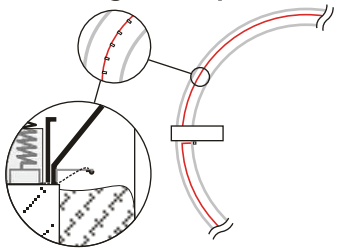
Conveyor Systems



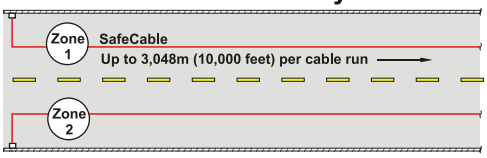
Equipment/Proximity



Floating Rooftop Tanks

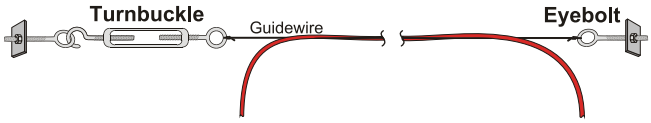


Tunnels / Subways



SafeCable with GuideWire for Extended Runs Using Minimal Support

Minimal support -4.6m (15 ft) intervals



L-Bracket with Eyebolt and Grommet

Note: Please refer to all federal, state and local codes, and manufacturer's recommendations prior to design or installation.

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