Linear Heat Detection Cable SafeCable LHD™ Series

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 (.05 ohm/ft. [.164 ohms/m] 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 meters 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.
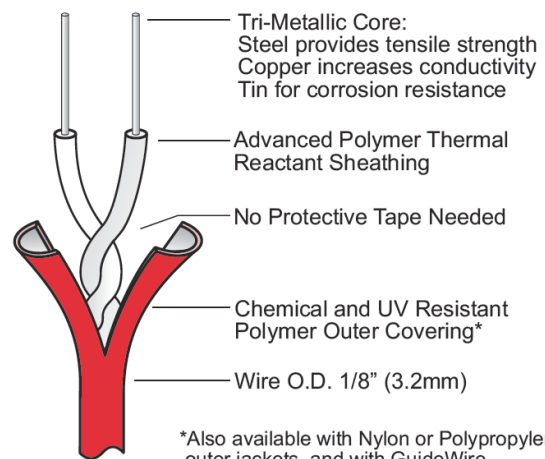
Applications

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.

Features

- Up to 10,000 linear feet (3,048m) of SafeCable per zone
- Approved for up to 35 feet (10.7m) spacing
- 0.05 ohms/ft (0.164 ohms/m) 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 Panels
- Use with addressable modules
- Multiple alarm temperatures: 155°F (68°C), 172°F (78°C), 190°F (88°C), 220°F (105°C), 365ºF (185ºC)
- Distance locating available
- Can detect anywhere along the entire length of wire
- Multiple alarm temperatures can be mixed on the same zone
- Total zone length replacement unnecessary after alarm
- Longer standard spool lengths means less splicing
- Custom lengths available

SafeCable Technology

Tri-Metallic Core:
Steel provides tensile strength
Copper increases conductivity
Tin for corrosion resistance

Advanced Polymer Thermal Reactant Sheathing

No Protective Tape Needed

Chemical and UV Resistant Polymer Outer Covering*

Wire O.D. 1/8" (3.2mm)

*Also available with Nylon or Polypropylene outer jackets, and with GuideWire.

■ Maximum Listed Spacing

Temperature Rating	C-UL-US	FM
155°F (68°C)	35 ft. (10.7m)	30 ft. (9m)
172°F (78°C)	35 ft. (10.7m)	30 ft. (9m)
190°F (88°C)	35 ft. (10.7m)	30 ft. (9m)
220°F (104°C)	35 ft. (10.7m)	25 ft. (7.6m)
365°F (185°C)	35 ft. (10.7m)	25 ft. (7.6m)

■ Maximum Ambient Temperatures

Maximum Ambient Install Temperature	Alarm Temp.	Part Number
Up to 113°F (45°C)	155°F (68°C)	TC155
Up to 122°F (50°C)	172°F (78°C)	TC172
Up to 158°F (70°C)	190°F (88°C)	TC190
Up to 190°F (88°C)	220°F (104°C)	TC220
Up to 305°F (152°C)	365°F (185°C)	TC365N

■ Specifications

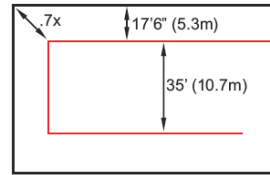| Specifications	SafeCable LHD
Diameter	1/8" (3.2mm)
Weight	Nominal 15 lbs./1000 ft. (6.8kg/305m)
Bend Radius	3" (76.2mm)
Max. Voltage Rating	30 VAC, 42 VDC
Resistance	0.05 ohms/ft. (.164 ohms/m)
Temperature Ratings	155°F, 172°F, 190°F, 220°F, 365ºF (68°C, 78°C, 88°C, 105°C, 185ºC)
Sheathing Options	PVC: Corrosive and UV resistant Nylon: Abrasion resistant Polypropylene: Chemical resistant
Optional Guidewire	Minimal support -15 ft (4.6m) intervals
Operating Temperature	-75°F (-60°C) to Alarm Temp.

■ 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 (APDL-Z1) displays the distance from the module to the overheating condition in both feet and meters.
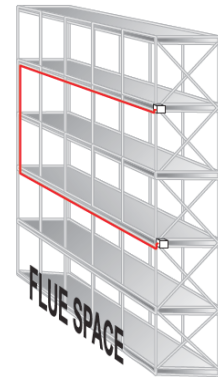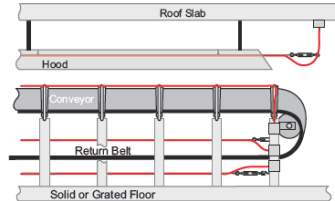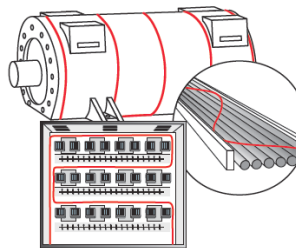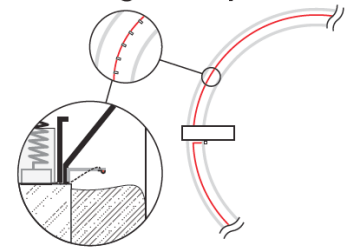
■ Installation Examples

Area Spacing

In-Rack

FLUE SPACE

Conveyor Systems

Roof Slab
Hood
Conveyor
Return Belt
Solid or Grated Floor

Equipment/Proximity

Floating Rooftop Tanks

Tunnels / Subways

Zone 1   SafeCable
Up to 10,000 feet (3,048m) per cable run

Zone 2
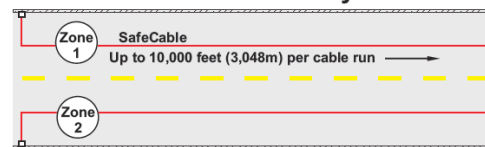
SafeCable with GuideWire for Extended Runs Using Minimal Support

Turnbuckle   Guidewire   Eyebolt
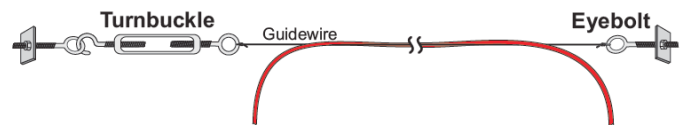
L-Bracket with Eyebolt and Grommet

Distributed By

LHD-DAT-01   Rev.01

http://www.nittan.co.uk