

PERTRONIC INDUSTRIES LTD

DATASHEET

Linear Heat Detection Cable (LHD)



Overview

The Linear Heat Detection Cable (LHD) is designed for use where traditional point heat detectors are unsuitable.

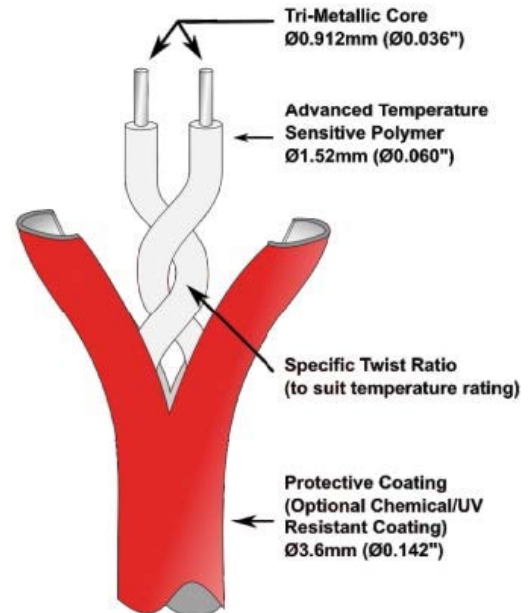
The LHD is a fixed temperature sensor capable of initiating an alarm if its temperature threshold is exceeded.

It consists of two tri-metallic conductors twisted together to keep them under mechanical tension. Each conductor is individually coated in a temperature sensitive polymer that detects heat conditions anywhere along its length.

It is not required that a specific length be heated in order to initiate an alarm. Therefore, LHD provides the advantage of line coverage with point sensitivity.

LHD cable is available with a PVC or Nylon outer sheath.

Typical applications include tunnels, mining, manufacturing, warehousing, cold stores, communications and general industry, etc.



Linear Heat Detection Cable

Features

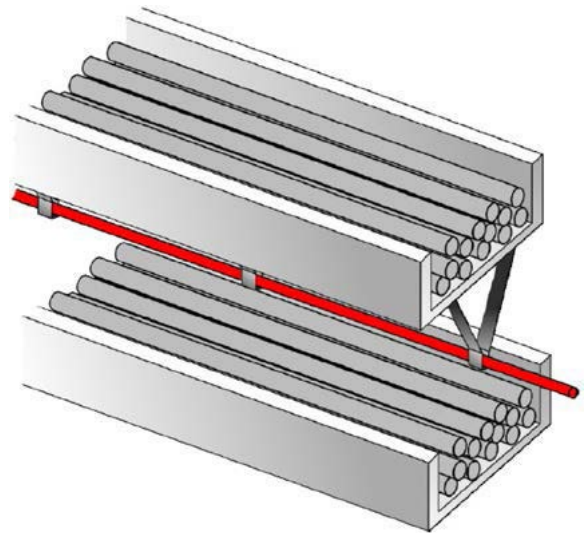
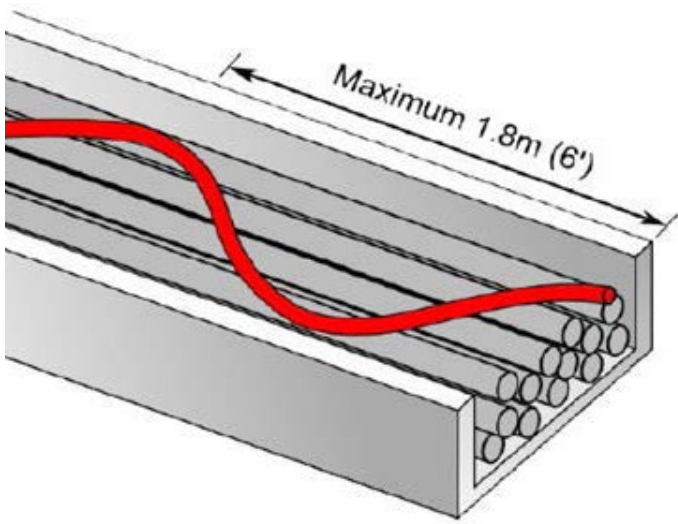
- » Suitable for use with Pertronic NZS 4512:2010 conventional zones of Loop Responder, Apartment Module, F1, F4, F16e
- » Simple installation using standard 10 k Ω EOL resistor and one alarm resistor in series with the LHD cable
- » Can be used for Hazardous areas with Galvanic Isolator
- » Available: 200 m and 500 m drums
- » Maximum Zone Length: 3,000 m
- » International Approvals: CE marked, RoHS compliant, UL, FM, GOST-R
- » Available temperature thresholds: 68 °C, 78 °C, 88 °C, 105 °C

Specification

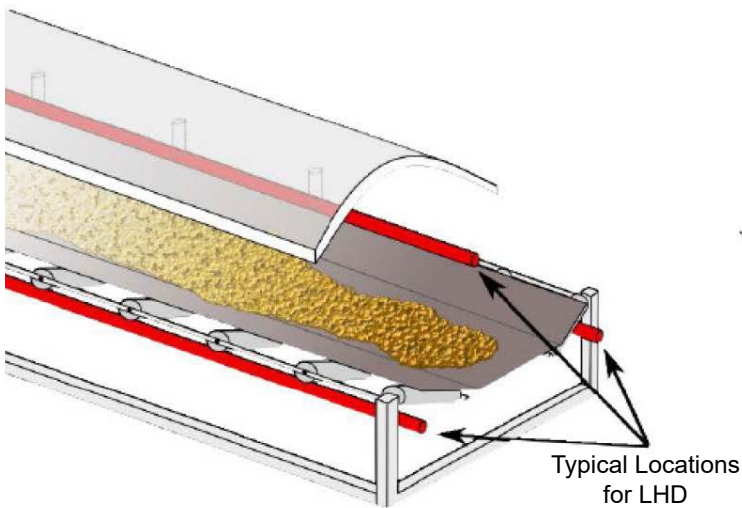
Construction	Dual insulated, twisted pair of tri-metallic cores
Insulation	1 kV tested protective outer coat
Wire Overall Diameter	3.6 mm
Minimum Bend Diameter	50 mm @ >0 °C 100 mm @ ≤ 0 °C
Ambient Temperature	40 °C to 45 °C, for 68 °C or 78 °C activating 40 °C to 70 °C, for 88 °C or 105 °C activating
Maximum Voltage Rating	30 Vac / 42 Vdc
Resistance	~200 Ω /km
Outer Colour	Red

LHD Product	SS-LD-68	SS-LD-78	SS-LD-88	SS-LD-105
Capacitance (pF/m)	150	121	97	88
Inductance (nH/m)	960	750	540	1050

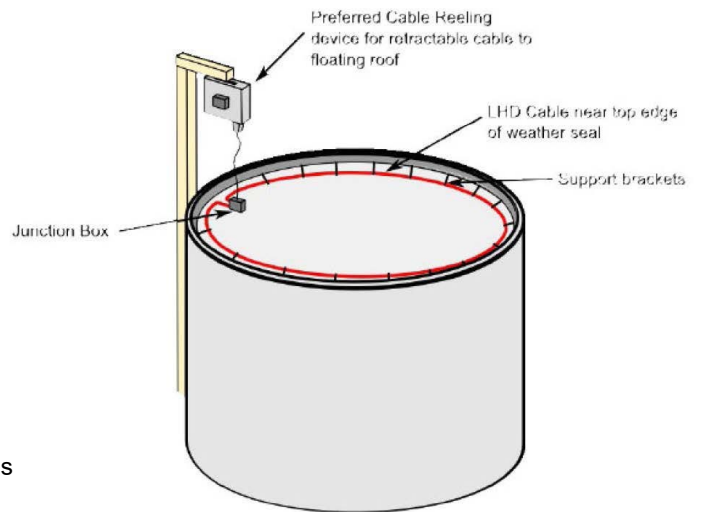
Typical Applicatons



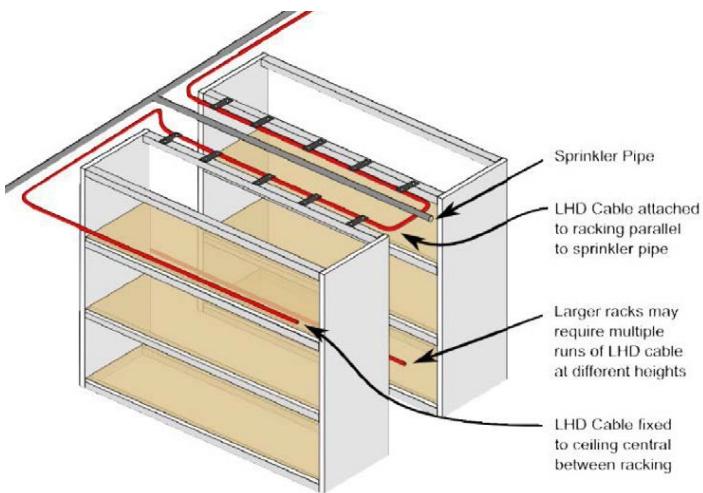
Cable Trays



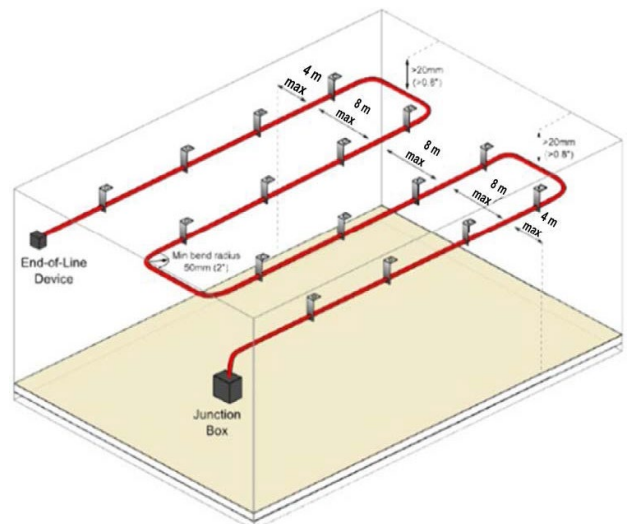
Conveyor Belts



Floating Roof Storage Tanks

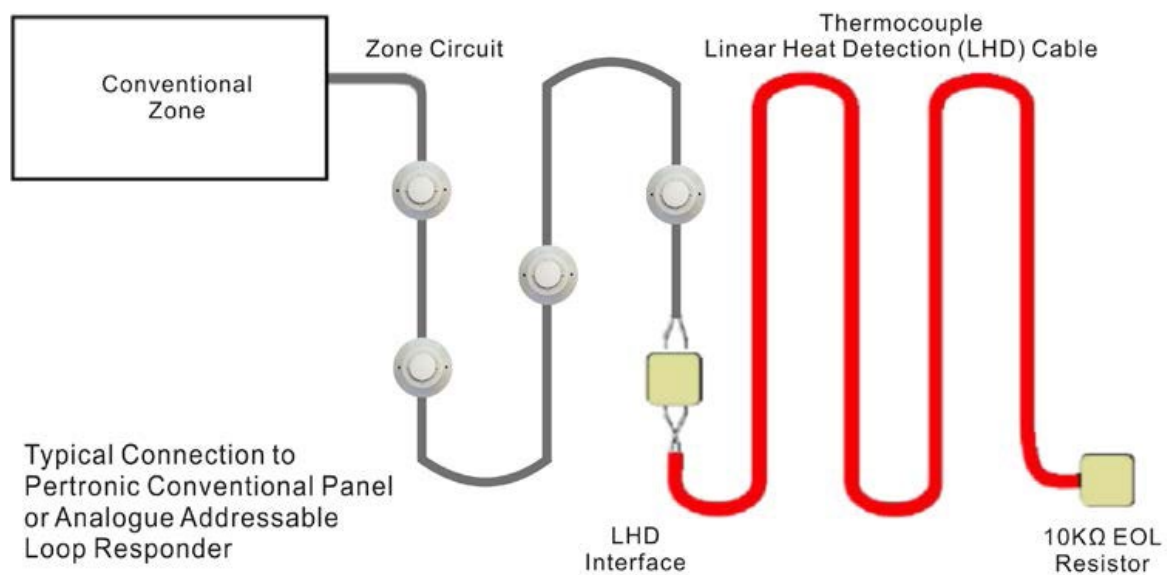


Rack Storage



Area Protection

Typical System Configuration



Ordering Information

Product Code	Description
SS-LD-68-155	Linear Heat Detection Cable, PVC Sheath, 68°C, in 200 & 500m Drums
SS-LD-78-172	Linear Heat Detection Cable, PVC Sheath, 78°C, in 200 & 500m Drums
SS-LD-88-190	Linear Heat Detection Cable, PVC Sheath, 88°C, in 200 & 500m Drums
SS-LD-105-221	Linear Heat Detection Cable, PVC Sheath, 105°C, in 200 & 500m Drums
SS-LDN-78-172	Linear Heat Detection Cable, Nylon Sheath, 78 C, in 200 & 500m Drums
RESFR1610K	EOL Resistor 10KΩ, 0W5, 5%
RESFR16330R	Series Alarm Resistor 330Ω, 0W5, 5%
RESFR16100R	Series Alarm Resistor 100Ω, 0W5, 5%
On request	Linear Heat Detection Cable, Nylon Sheath, other temperature thresholds

The information in this document must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements.

Unless explicitly stated otherwise, this document provides typical specifications and nominal dimensions. Actual product performance and dimensions may vary.

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