

Linear Heat Detectors



Features

- Line coverage with point sensitivity
- Four temperature ratings to accommodate the most demanding applications
- Different temperatures may be utilized in the same initiating circuit
- Withstands severe environmental conditions
- Approved for hazardous locations
- Compatible with other initiation devices on the same circuit, such as pullstation, detectors
- Sensitivity not effected by changes in ambient temperature or length of cable used
- Easy to install, test and splice with common tools

Description

The Linear Heat Detectors are ideally suited to industrial high risk hazards as well as many types of commercial applications. Linear heat detectors have unique advantages over other types of detectors, especially when difficult installation factors or severe environmental conditions are present.

The Linear Heat Detector is a cable that detects heat at any point along its length. The sensor cable is comprised of two steel conductors individually insulated with a heat sensitive polymer. The insulated conductors are twisted together to impose a spring pressure between them, then wrapped with a protective tape and finished with an outer jacket suitable for the environment in which the detector will be installed. The Linear Heat Detector features low moisture absorption, resistance to many chemicals and flame retardant.

The Linear Heat Detector is a fixed temperature digital sensor and is therefore capable of initiating an alarm once its rated activation temperature is reached. At the rated temperature, the heat sensitive polymer insulation yields to the pressure upon it, permitting the inner conductors to move into contact with each other thereby initiating an alarm signal. This action takes place at the first heated point anywhere along the detector's length. A specific length is not required to be heated in order to initiate an alarm nor is system calibration necessary to compensate for changes in the installed ambient temperature.

The Detector also meets intrinsically safe standards and is FM Approved for Class I, II or III, Div.1, Applicable Groups A, B, C, D, E, F & G hazardous areas, when the appropriate fire alarm panel is used.



Installation & Wiring

Detailed instructions for splicing can be requested.

The length of linear heat detector is supervised by a conventional initiating device circuit. A small current is continuously passed through the detector and end of line resistor (ELR). The end line resistor limits the amount of current to present level which the monitoring circuit is configured to treat as a normal condition.



Technical Specifications

Alarm Temperature			
68°C (155°F)	87°C (190°F)	138°C (280°F)	180°C (356°F)*
Max. Installed Ambient Temperature			
37.8°C (up to 100°F)	65.6°C (up to 150°F)	93.3°C (up to 200°F)	121.1°C (up to 250°F)

Weight	Maximum Spacing	Resistance	Diameter
32g/m (0.02 lbs/ft.)	7.6m (25 ft.)	Approx. 1.0hm/1.5 m (5 ft.)	Approx. 4.00 mm (5/32")

*FM Approved for special application use only.

Ordering Information

Part Number	Description
224-13485-00	Linear Heat Detector Cable, 68°C (155°F), Multi-purpose
224-13485-01	Linear Heat Detector Cable, 68°C (155°F), Chemical Resistant
224-15357-02	Linear Heat Detector Cable, 87°C (190°F), Multi-purpose
224-15357-01	Linear Heat Detector Cable, 87°C (190°F), Chemical Resistant
224-13712-00	Linear Heat Detector Cable, 137°C (280°F), Chemical Resistant
224-13712-01	Linear Heat Detector Cable, 137°C (280°F), Multi-purpose
224-15595-00	Linear Heat Detector Cable, 180°C (356°F), Chemical Resistant
224-15595-01	Linear Heat Detector Cable, 180°C (356°F), Multi-purpose
297-13484-00	Splicing Connectors, 2-point, Nylon, 10/pkg