



**United
Technologies**

Climate | Controls | Security

Alarmline II

Linear heat detection



Linear heat detection

Alarmline II linear heat detection (LHD) is a cable based temperature monitoring system which provides early detection of abnormal changes in the ambient temperature within commercial applications. Alarmline II linear heat detection provides an economical solution for applications where other forms of detection may not be suitable.

The Alarmline II product range is split into two sub-ranges, Alarmline II analogue and Alarmline II digital, providing customers and end users with a wide range of solutions to meet the requirements of many different applications.



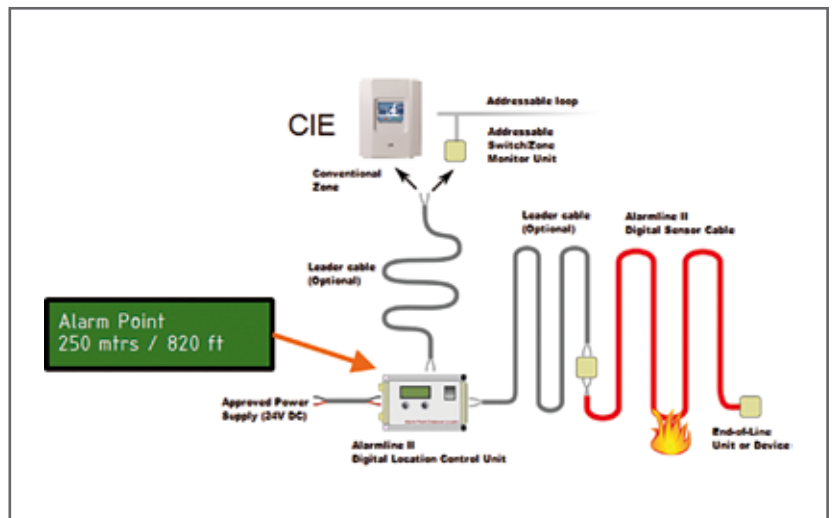
Alarmline II benefits

- Economic solution
- Easy installation
- Simple setup
- Installation close to the point of risk
- Maintenance free
- Unaffected by environmental conditions
- Wide range of protective outer coating
- Suitable for use in hazardous areas

Alarmline II digital

The simplest form of linear heat detection Alarmline II digital is a non-resettable line type heat detector. Alarmline II digital consists of a range of twin conductor cables with each cable providing a different alarm temperature rating to meet the requirements of a wide range of applications. The sensor cable is constructed of two cores each insulated with a special polymer which is designed to break down at a specific temperature, the two cores are twisted together creating tension. As the temperature around the cable increases the insulation breaks down and the tension created by the twists forces the two cores to make contact. The contact between the two cores is detected by the monitoring equipment which then triggers an alarm condition. Alarmline II digital provides an unrivalled range of five different alarm temperature rated cables to choose from 68°C, 88°C, 105°C, 185°C and 240°C.

Alarmline II digital can be interfaced to any main fire alarm system through a monitored input without the need for a dedicated control unit. The Alarmline II digital system can be enhanced by using the Alarmline II digital Location Control Unit which will identify the alarm point along a length of sensor cable.



Alarmline II digital features and benefits

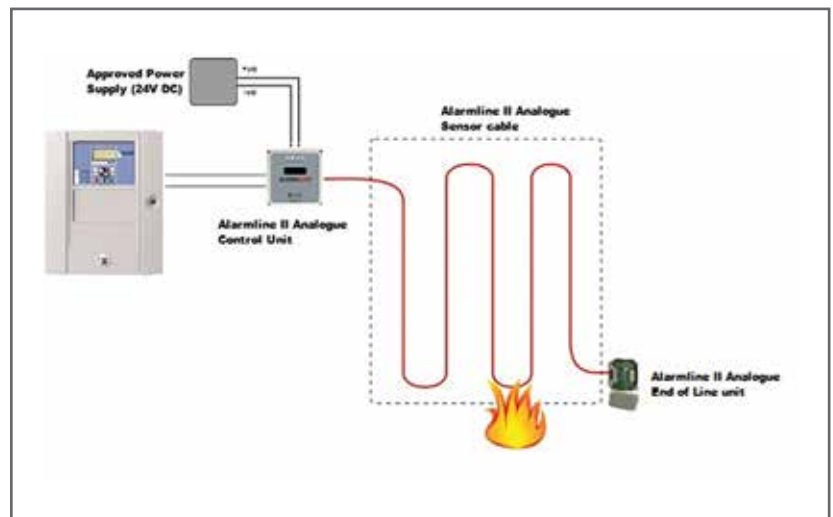
- Simple on or off operation
- Open circuit fault monitoring
- Rapid response
- Industries widest selection of alarm temperatures 68°C to 240°C
- Interposing cable between monitoring equipment and sensor cable
- PVC, nylon, polypropylene, stainless steel and fluoropolymer protective outer sheaths
- No specialist control unit
- Optional distance location control unit
- UL and FM approvals

Alarmline II analogue

Unlike the Alarmline II digital the analogue system provides a higher level of control over system operation. Alarmline II analogue uses a single sensor cable which is monitored by a dedicated control unit, changes in the surrounding temperature cause changes in the characteristics of the sensor cable which will activate the control unit at the specified alarm temperature. Sensor cable is provided with different protective outer sheaths allowing it to be installed in a wide variety of application. Alarmline II analogue is a resettable line type heat detector therefore providing the cable has not been destroyed the system can be reset following an alarm condition.

Alarmline II analogue can also provide an early warning through a programmable pre-alarm activation threshold. A pre-set range of programmable alarm and pre-alarm thresholds make configuration of the system quick and easy, with no difficult calculations or graphs required.

The Alarmline II analogue is easily interfaced to the main fire alarm system using Volt free contacts provided for alarm, pre-alarm and fault conditions. Dedicated control units are provided with or without an LCD and are either self-programmable (LCD variant only) through internal pushbuttons or laptop programmable.



Alarmline II analogue features and benefits

- Adjustable alarm and pre-alarm thresholds
- Easy configuration – no nomogram/graphs
- Resettable following an activation*
- Volt free contacts for interfacing
- Programmable directly through control unit or via a laptop
- UL approved sensor cable and control unit
- Up to 500m of sensor cable on a single control unit
- Open and short circuit fault monitoring of sensor cable

Protective outer sheaths

Alarmline II analogue and digital linear heat detection sensor cables are provided with a wide range of optional outer sheaths enabling it to be installed in the harshest of environments. Whether the sensor cable is installed indoors, outdoors, at risk of mechanical or chemical damage, we have the solution.

	Sensor cable protection	Application
	PVC	Interior applications, general area coverage where sensor cable is unlikely to be subjected to physical damage or exposed to harsh environmental conditions
	Nylon	Chemical/UV protection, exterior applications where it may be subjected to sunlight and even some chemicals.
	Polypropylene	Increased chemical protection in caustic environments
	Fluoropolymer	Chemical/UV protection, exterior applications where additional chemical protection is required in more caustic environments. 240oC digital cable only
	Stainless Steel & PVC	Increased mechanical protection for cables which could possibly suffer physical damage
	Stainless Steel & Nylon	Chemical/UV and mechanical protection for applications where the sensor cable could be subject to physical damage

Product range

A wide range of installation accessories are available to complement the Alarmline II analogue and digital systems.

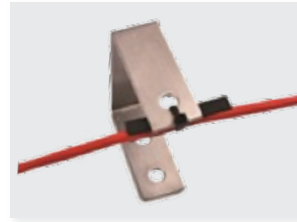
Fixing clips, junction boxes as well as specialist application accessories such as cable reels, all accessories are compatible with both analogue and digital LHD systems a selection of the fixing clips are shown below.



'T' clip



Edge clip



'U' bracket



'I' bracket



V' bracket



Pipe bracket



'L' bracket

Alarmline applications

there are many applications where alarmline ii analogue and digital systems can provide a reliable and economic solution, some of the more common types are shown below:



Cable Tunnels

High power cable installations at power stations, airport terminals, railway stations and any installations requiring substantial power requirements can be protected by Alarmline sensor cables. Alarmline II sensor cables can be installed within each layer of racking providing detection close to the point of risk



Conveyors

Overheating bearings on conveyor support rollers can be a common cause of conveyor belt fires. Alarmline systems can detect these overheat conditions. Additional protection can be provided above and below the conveyor belt against spillage and the transportation of ignited material.



Car parks

Exhaust fumes and general environmental conditions can cause problems with many other forms of detection in car parks. Alarmline II is unaffected by exhaust fumes and environmental conditions and can be more a cost effective option to point type detectors.



Floating roof tanks

The petrochemical industry requires that tank fires caused by the ignition of combustible gases are extinguished in a short time frame. A rim seal Alarmline detection system provides point of risk detection and a fast response to trigger an extinguishing system.



Escalators

Alarmline system provides for the total protection of escalators with coverage provided at all potential fire risk areas i.e. drive motors, return roller bearings dust collection trays and truss rollers. Alarmline can be used to give fire alarm indication and also to initiate a sprinkler system.



Bulk storage

Alarmline "In rack" protection at multiple levels ensures rapid fire detection. As part of a pre action sprinkler system, an advance warning of imminent sprinkler operation may avoid unnecessary water damage to stored goods.

Other applications:

Boilers, control cubicles, engine bay protection, silos and driers, paint spray booths, rolling stock, transformers, etc.

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