ALARMLINE II

LINEAR HEAT DETECTION

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AlarmLine II linear heat detection (LHD) is a cable based temperature monitoring system that provides detection of abnormal changes in the ambient temperature within commercial and industrial 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 can provide protection in very challenging environments by selecting the suitable variant.
One example is corrosive environments as shown above.

ALARMLINE II BENEFITS

- Economic solution
- Easy installation
- Simple setup
- Installation at the point of risk

- Very low maintenance
- Unaffected by environmental conditions
- Resilient to environmental conditions
- Suitable for use in hazardous areas

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 is available in two different ranges: AlarmLine II Digital with international approvals, and AlarmLine II Digital EN with EN54-28(2016) approval.
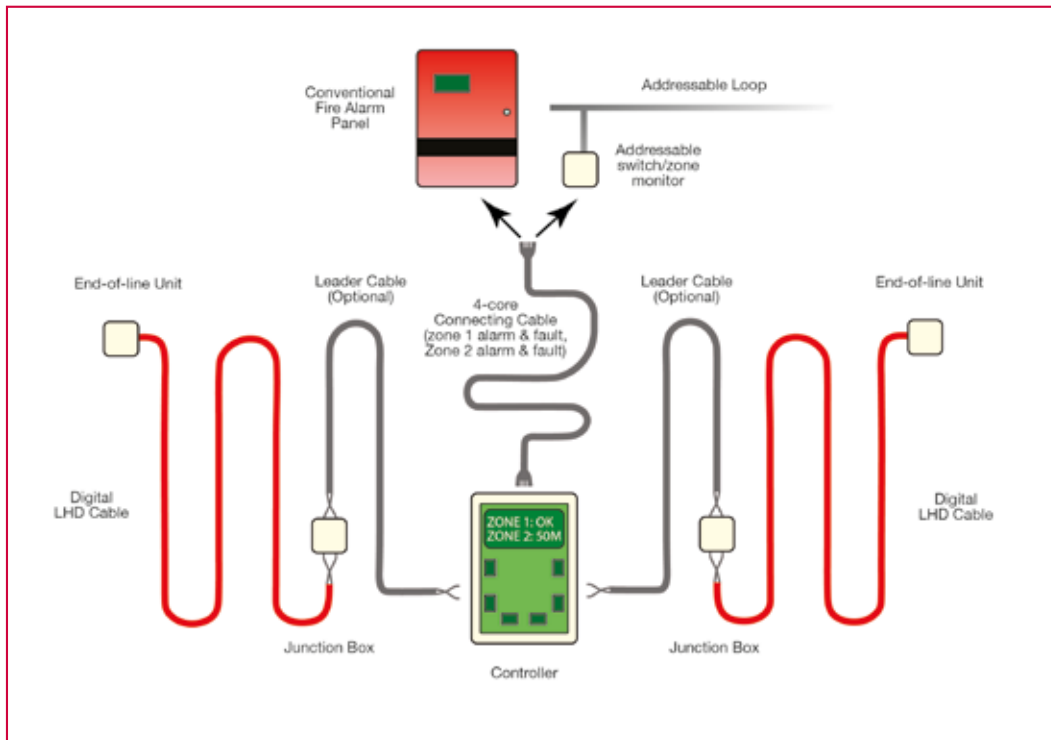
ALARMLINE II DIGITAL

AlarmLine II digital provides an unrivalled range of different alarm temperature rated cables to choose from: 68°C, 88°C, 105°C, 185°C and 218°C. AlarmLine II digital can be interfaced to any main fire alarm system directly through a monitored zone input or the AlarmLine II digital control unit which identifies the alarm point along the length of sensor cable.

ALARMLINE II DIGITAL FEATURES AND BENEFITS

- Simple alarm / no-alarm operation
- Open circuit fault monitoring
- Rapid response
- Industries widest selection of alarm temperatures from 68°C to 218°C

- Interposing cable allowed between monitoring equipment and sensor cable
- PVC, nylon, polypropylene and stainless steel protective outer sheaths
- Optional dual channel distance location control unit

Figure labels:
- Conventional Fire Alarm Panel
- Addressable Loop
- Addressable switch/zone monitor
- End-of-line Unit
- Leader Cable (Optional)
- 4-core Connecting Cable (zone 1 alarm & fault, Zone 2 alarm & fault)
- Leader Cable (Optional)
- End-of-line Unit
- Digital LHD Cable
- ZONE 1: OK ZONE 2: 50M
- Digital LHD Cable
- Junction Box
- Controller
- Junction Box

ALARMLINE II DIGITAL EN

AlarmLine II digital EN cable is available in two different alarm temperatures: 78°C and 88°C. AlarmLine II digital EN interfaces to any fire alarm system through the AlarmLine II digital EN control unit, by connecting the alarm and fault outputs of the controller to a zone monitor or input module. The controller has two individual zones, which can be configured as independent zones, or in coincidence mode. When an alarm is detected, the alarm point along the length of sensor cable is indicated on the display of the controller.

ALARMLINE II EN DIGITAL FEATURES AND BENEFITS

- Simple alarm / no-alarm operation
- Open circuit fault monitoring
- Rapid response
- Interposing cable allowed between control unit and sensor cable
- Dual channel distance location control unit
- Option to configure control unit as independent zones, or coincidence mode
- Alarm distance indication
- Modbus support

ANALOGUE

Unlike the digital solution, the analogue system provides a higher level of control over system operation. AlarmLine II analogue uses 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 programmed alarm temperature. AlarmLine II analogue is a resettable line type heat detector whereby, providing that the cable has not been physically damaged, 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. AlarmLine II analogue allows for superior detection capability over many competitor sensor cable because it compensates for ambient temperature fluctuations. This feature not only ensures better and more accurate detection at the programmed alarm temperature, but also ensures smaller detection areas across the full cable length of up to 500m.
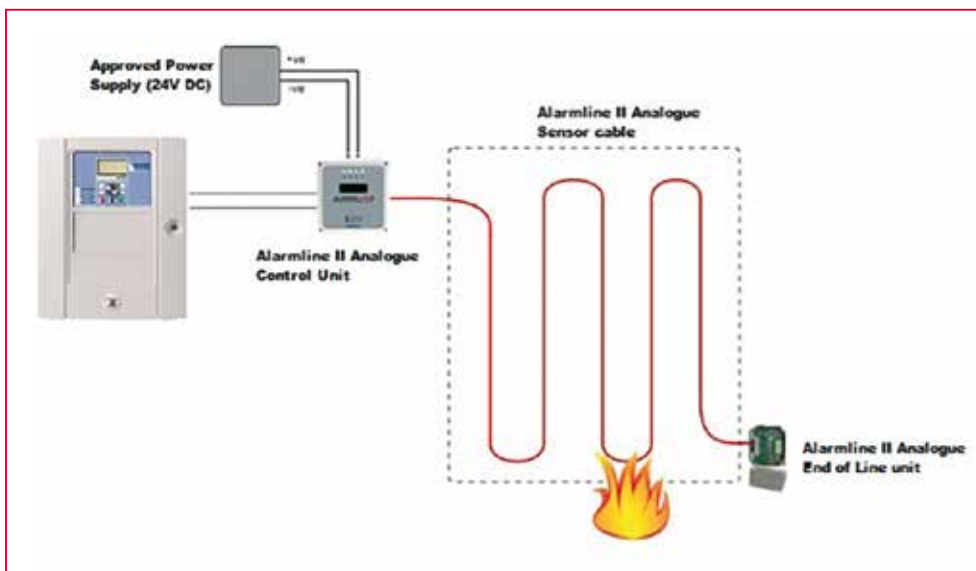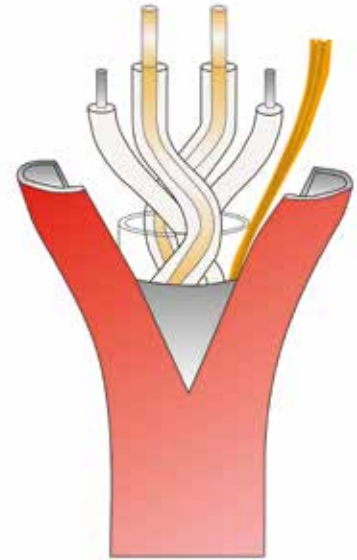
AlarmLine II analogue is available in two different ranges: AlarmLine II Analogue with international approval, and AlarmLine II Analogue EN with VdS approval based on EN54-22.

ALARMLINE II ANALOGUE

This range offers the selection between two different control units, the led-only version with 4 status LEDs on the front and which is programed via a laptop. And the LCD version which provides additional information on the status of the system and can be programmed by either the internal programmer or a laptop. The sensor cable for this range is available with different protective outer sheaths allowing it to be installed in a wide variety of applications.

ALARMLINE II ANALOGUE AND ALARMLINE II ANALOGUE EN FEATURES AND BENEFITS

- Adjustable alarm and pre-alarm thresholds
- Easy configuration - no nomogram/graphs
- Resettable following an activation

- Programmable directly through control unit of via a PC
- Up to 500m of sensor cable on a single control unit
- Open and short circuit fault

ALARMLINE II ANALOGUE EN

This range has been approved by VdS to EN54-22 for cable lengths up 500 meters per zone for Classes A1I, A2I and BI.

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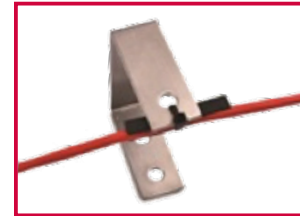
Fixing clips, junction boxes as well as specialist application accessories such as cable reelers are available. All accessories are compatible with both analogue and digital LHD systems. A selection of the fixing clips are shown below.

'T' clip

Edge clip

'U' bracket

'I' bracket

V' bracket

Pipe bracket

'L' bracket

ALARMLINE II 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 II 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 II 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 II detection system provides point of risk detection and a fast response to trigger an extinguishing system.

ESCALATORS

AlarmLine II 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 II can be used to provide a fire alarm indication and also to initiate a sprinkler system.

BULK STORAGE

AlarmLine II "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.

THE RIGHT PARTNER IN PROTECTION

Kidde Fire Systems, a world leader in providing total system solutions for special hazard fire protection, offers a comprehensive portfolio of detection, notification, suppression and control products that can be tailored to fit specific applications. Kidde is a part of Carrier, a leading global provider of innovative HVAC, refrigeration, fire, security and building automation technologies.

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firesecurityproducts.com