

## SIGNALINE LINEAR DETECTION SOLUTIONS Product Brochure









### **About us**

Signaline, by LGM Products, is an award winning, comprehensive range of linear detection systems providing solutions for fire and water leak detection.

Our linear detectors are 100% manufactured in the UK and have a wide range of third-party approvals. Testifying to the high quality of the products, Signaline linear detectors are approved to internationally recognised standards such as EN54, UL, cUL, FM, ATEX and IECEX.

We have also achieved national approvals such as Hong Kong Fire Services Approval, UAE Civil Defence

To provide excellent customer service we keep high stock levels of Signaline cables, controllers and accessories in our UK warehouse. We are able to offer overnight delivery to most European and UK customers. Speak to our sales team now to see how we can help you.





Fire detection Hazardous area



Conformity, Australia Activfire approval, Korean Fire Institute and Qatar Civil Defence Approval.

Signaline is part of the LGM Products family. LGM Products, based in the UK, is a family run business working in the fire detection and industrial markets for over 35 years. Our third party approved quality management system gives our customers the confidence they need in a reliable and active supplier. Check our website to download a copy of our ISO9001:2015 quality assurance certificate. For further information on LGM Products please see our website at **www.signaline.com** 







Water detection Signaline Linear Heat Detectors are the ideal solution for fire detection in the following environments:

### Escalators

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### **Car Parks**

Conveyor Belts

7

Cable Trays



VUL

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#### FT-EN Linear Heat Detection

### Signaline FT-EN Linear Heat Detection

Signaline FT-EN, approved to EN54 part 28, is a fixed temperature Linear Heat Detector cable, Fixed Temperature Linear Heat Detectors detect a build-up of heat anywhere along their length. When any point along the length of the cable reaches a predetermined temperature an alarm is initiated.

Signaline FT-EN cables are ROHS compliant, Low Smoke Zero Halogen (LSZH) and have a UV stable and chemical resistant coating

meaning they can be used in even the harshest of environments.

The Signaline LocatorPlus-EN Linear Heat Detection controller monitors two zones of Signaline FT-EN with up to 1000m per zone. The Signaline LocatorPLus-EN comes in an IP65 rated enclosure allowing for field mounting. As well as fire and fault outputs, it can also be connected directly to building management systems via the MODBUS connection.

To complete the installation the EN54 part 28 approval also includes the Signaline FT-EOL-EN. This end of line box can terminate two zones of cable and provides alarm and fault test switches to ensure your installation is fully operational.

With a list of features as long as its alarm zone, why wouldn't you choose Signaline FT-EN?

### Signaline LocatorPlus-EN Linear Heat Detection Controller and Alarm Locator

The Signaline LocatorPlus-EN is a dual zone monitor module for the Signaline FT-EN cables. With each zone able to monitor 1000m of cable, a single unit can cover a vast detection area.

Signaline LocatorPlus-EN is simple and quick to set up and requires no specialist software or programming tools. There are two operating modes allowing the zones to operate independently or interlocking. In the event of an alarm the Signaline LocatorPlus-EN immediately displays the alarm location and zone of the activation. This enables quick and efficient alarm notification.

#### Key points

- **\*** EN54 part 28 approved by UL EU
- \* Up to 1km per detection zone \* UV and Chemically Protected
- \* Compatible with Addressable and Conventional fire detection systems
- \* Easy set up with no special
  - programming or tools
- \* Exact alarm location identification
- ✤ Zero on-going maintenance

- IP65
- EN54 part 28 approved
- ModBus Output
- LCD display
- 🐏 CE 🗭
- LED alarm and fault indication
- Easy set up
- Low Power consumption











#### FT-EN Linear Heat Detection

### Signaline FT-EN Linear Heat Detector

Signaline FT-EN is approved by UL EU to EN54 part 28 as non-resettable Line Type Heat Detector. It is Low Smoke Zero Halogen (LSZH) and is available in either FT-68-EN, FT-78-EN or FT-88-EN alarm temperatures.

The cable's outer coating is made from a UV and chemical resistant compound making the cable suitable for even the harshest of environments.

Signaline FT-EN is used with the Signaline LocatorPlus-EN and FT-EOL-EN to make a complete EN54 part 28 approved system.



#### Signaline FT-68-EN

- 68°C Alarm Temperature
- 1000m zone length
- LSZH linear heat detector cable
- Exact alarm location
- Available in optional stainless steel braid
- Available with catenary wire for speedy installation





#### Signaline FT-78-EN

- 78°C Alarm Temperature
- 1000m zone length
- LSZH linear heat detector cable
- Available with catenary wire for speedy installation



Exact alarm location



#### Signaline FT-88-EN

- 88°C Alarm Temperature
- 1000m zone length
- LSZH linear heat detector cable
- Exact alarm location
- Available in optional stainless steel braid • Available with catenary wire
- for speedy installation









• Available in optional stainless steel braid



### SIGNALINI FT-EN Fixed Temperature Linear Heat Dete

FT Linear Heat Detection

### Signaline FT-EOL-EN

Linear Heat Detector End of Line Unit

The Signaline FT-EOL-EN End-of-Line Unit has been approved to EN54 part 28 for use with the LocatorPlus-EN and FT-68-EN, FT-78-EN or FT-88-EN Signaline Linear Heat Detection cables.

It is designed to effectively terminate up to two zones of FT-68-EN, FT-78-EN or FT-88-EN cable in a secure, weatherproof enclosure.

To help reduce installation cost the Signaline FT-EOL-EN can terminate two zones in a single unit. Furthermore, the builtin switches for testing a fault or alarm condition allow the integrity of the whole system to be functionally checked in situ, providing comprehensive testing and maintenance of the system.



- IP66
- EN54 part 28 approved
- Terminates two detection zones
- Built-in test and fault switches



### Signaline FT Linear Heat Detector

Signaline FT is a market leading range of fixed temperature (digital) Linear Heat Detection cables. Approved to UL, cUL and FM standards, Signaline FT linear heat detection cables provide affective heat detection for a wide range of applications.

Designed for easy installation, Signaline FT is an extremely rugged heat detection. It can be used in environmentally harsh

environments without risk of false alarm with a range of alarm temperatures to suit even extremely hot ambient conditions.

Signaline FT also has the versatility to be used with any conventional, addressable or extinguishing fire detection system. With a maximum zone length of 3000m Signaline FT will ensure your entire facility is correctly protected.

#### Key points ✤ Easy, low-cost installation Compatible with Addressable and ✤ FM, UL cUL approved Conventional systems \* 3000m maximum zone length \* Hazardous area compliant ✤ 5 different alarm temperatures ✤ UV and chemical \* Zero maintenance resistant variants







Increased protection with Stainless Steel variants



#### FT Linear Heat Detection

### **Signaline FT**

Signaline Fixed Temperature Linear Heat Detectors (Signaline FT) detects a build up of heat anywhere along its length. When any point along the length of the cable reaches a predetermined temperature an alarm is initiated.

# Signaline FT-68

- Alarm Temperature: 68°C
- Outer Sheath: Red PVC
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL, FM, KFI





#### Signaline FT-68-R

- Alarm Temperature: 68°C
- Outer Sheath: Chemical Resistant Black Nylon
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL

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#### Signaline FT-88

- Alarm Temperature: 88°C
- Outer Sheath: White PVC
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL, FM, KFI



#### Signaline FT-88-R

- Alarm Temperature: 88°C
- Outer Sheath: Chemical resistant Black Nylon
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL















#### FT Linear Heat Detection



#### Signaline FT-105

- Alarm Temperature: 105°C
- Outer Sheath: White PVC
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL, FM





#### Signaline FT-105-R

- Alarm Temperature: 105°C
- Outer Sheath: Chemical Resistant Black Nylon
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL

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#### Signaline FT-185-R

- Alarm Temperature: 185°C
- Outer Sheath: Chemical Resistant Red Nylon
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL





#### Signaline FT-230-X

- Alarm Temperature: 230°C
- Outer Sheath: Chemical Resistant Green Rubber
- Suitable for Hazardous area and Safe area
- Approvals: UL, cUL

















### Signaline LocatorPlus

Linear Heat Detector Controller and Alarm Locator

UL Approved, the Signaline LocatorPlus is a revolutionary controller and alarm locator for Signaline FT range of Linear Heat Detectors.

Housed in an IP66 enclosure the Signaline LocatorPlus is capable of monitoring 2 separate zones of Signaline FT, with up to 3000m of cable per zone. Signaline LocatorPlus will give exact alarm location, via it's LCD display, of any over heat along either zone of cable.

It is compatible with either conventional, addressable or extinguishing fire systems via the alarm relay contacts and

- IP65
- Alarm temperature: 68°C, 88°C, 105°C, 185°C and 230°C
- Approvals: UL, CE



offers further connectivity via the MODBUS output.

The Signaline LocatorPlus also offers two operating functions; Independent or Interlocking mode. When set to Independent, if either zone of cable alarms this is immediately reported via the relays to the control panel. Alternatively Interlocking will wait for both lines of cable to be in alarm before triggering the relays.



### Signaline FT-EOL Linear Heat Detector End of Line Unit

The Signaline FT-EOL Endof-Line Unit is designed to effectively terminate up to two zones of FT, FT-R or FT-X linear heat detection cable in a secure, weatherproof enclosure.

To help reduce installation cost the Signaline FT-EOL can terminate two zones

in a single unit, reducing project installation costs.

Furthermore, the built-in switches for testing a fault or alarm condition allow the integrity of the whole system to be functionally checked in situ, providing comprehensive testing and maintenance of the system.

- IP66
- Terminates two detection zones
- Built-in test and fault switches









SIGNALINE Catenary Wire

#### SIGNALINE Stainless Steel Braiding



### **Signaline Catenary Wire**

Signaline Catenary Wire is available as an optional addition to any of the Signaline Linear Heat Detection cables.

Signaline Catenary Wire aids in installing Signaline cable in areas which may be difficult to access, have large spans to cover or where fixing the cable at the normal recommended spacing (up to 1.5m / 5ft intervals) would be too difficult or time consuming.

The catenary wire is spiralled around the cable and makes the detector cable self-supporting.

A turnbuckle hook and support is sold separately to complete the installation.

- Easy installation for difficult areas
- Reduces installation time and cost
- Can be added to any detection cable
- Turnbuckle and hook sold separately

### **Stainless Steel Braiding**

Signaline FT-EN and FT cables come complete with hard wearing and durable outer coatings. However, in some applications, such as engine bays or conveyor belts, there can be a risk of mechanical damage to the Linear Heat Detectors.

In these applications we can offer any of our Signaline FT-EN or FT cables with a braided stainless steel outer coating. The standard cable has an additional SS316L braid weaved around it to ensure the highest level of mechanical protection. The result is an immensely strong and durable Linear Heat Detector that can be placed into areas where the cable may be subject to mechanical damage.

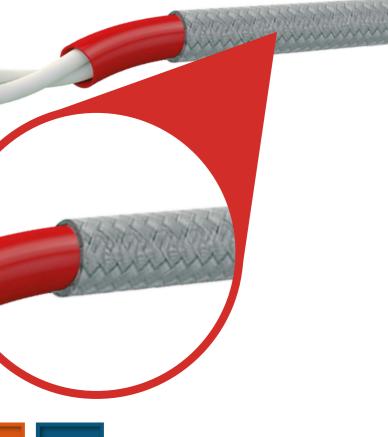


- Stainless Steel Braid available on all Signaline FT-EN and FT cables
- Increase mechanical protection
- Avoids accidental breakage











In Hazardous Areas

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### Using Signaline Linear Heat Detectors in Hazardous Areas

Hazardous areas exist where a potentially explosive mix of air and flammable gasses, or air and dust, or air, dust and gasses may occur.

When installing any electrical equipment into the hazardous area you must ensure the products are safe for use and will not be an ignition source.

Signaline Linear Heat Detection is no exception to this. Signaline FT-EN and FT cables are a low cost and effective form of fire detection within hazardous areas. They are recognised as Simple Apparatus and therefore only require the protection of an intrinsically safe barrier to be made safe for use within the hazardous area.

For Signaline FT-EN we recommend the use of the MTL7761AC and for Signaline FT we recommend the use of MTL5561.

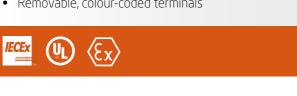
#### MTL5561 Galvanic Isolator

- Standard DIN rail mount
- Dual Channel Isolator





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Heat Detection accessories

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### Signaline UCB

Junction Box and End of Line for Signaline Linear Heat Detection

The Signaline Universal Connector Box (Signaline UCB) can be used as an end of line enclosure or junction box. This all-in-one solution reduces on-site time and cost. It uses heat rated terminals and glands that can be used with any Signaline Linear Heat Detector.

- IP66
- Suitable for Hazardous





### **Signaline UCB-Ex**

#### Ex Junction Box and End of Line for Signaline Linear Heat Detection

Signaline UCB-EX is a multi-purpose Ex Enclosure for Signaline FT-EN and FT. A Signaline UCB-Ex can be used as an end of line unit or junction box. It comes complete with cable glands, stoppers, terminal block and resistors

meaning the product is suitable for any use on-site. Therefore reduces installation time and cost. The GRP enclosure ensures not only a very high IP rating but also excellent corrosion and UV resistance, making the Signaline UCB-Ex ideal for the harshest of areas.



## Signaline Q Clip

Signaline Q Clip ensures the 20mm stand-off for the Linear Heat Detection from the ceiling required by EN54 part 28 and part 22.

This single piece clip removes the need for cable ties, reducing waste and significantly decreasing installation time on site.

The Q Clip uses a stainless steel 316L body with a EPDM liner. This provides excellent chemical and atmospheric resistance while ensuring that the cable is correctly cushioned witin the liner.







Heat Detection accessories

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Heat Detection accessorie

### **Signaline P Clip**

Our Stainless Steel P Clip is made with 316 Stainless Steel. This steel is highly resistant to oils and greases and also has a wide temperature tolerance. The clip features a UV and ozone resistant cushion insulator. The Signaline P clip can be used with any Signaline Linear Heat Detector.



### **Signaline J Clip**

The knock-on | Clip is suitable for the support of Signaline Linear Heat Detector cables from the outer edge of a conventional cable tray. The | Clip comes complete with the neoprene sleeve, to stop any direct heat transfer between the Signaline Linear Heat Detector and clip.

### Signaline V Clip

The Signaline V Clip is a single piece of Stainless Steel offering the installer the highest corrosion resistance as well as strength in the supporting arms. The 'V' shape allows a cradle for the cable to sit in. This shape allows the cable to be suspended away from the ceiling allowing hot air to circulate around all sides of the cable. Sold in packs of 100pcs, the V Clip comes complete with neoprene sleeves to insulate the cable and stop any direct heat transfer between the Signaline Linear Heat Detector and clip.

The V Clip is compatible with all Signaline Linear Heat Detectors.



### Signaline P Clip with L Bracket **Extension**

The Signaline P Clip with L Bracket is the ideal one-piece solution for fixing Signaline Linear Heat Detection to the

outside of a tank rim seal. The single piece of Stainless Steel offers the installer the highest corrosion resistance as well as strength in the supporting arm. The single unit further reduces installation time and cost.













SIGNALINE Heat Detection accessories

Linear Water Detection

### **Signaline Retractable Cable**

Signaline Retractable Cables are designed to withstand harsh environment, oil, grease and similar chemicals. Signaline Retractable Cables are manufactured specifically for floating roof storage tanks. The floating roof rises and falls as the tank fills and empties. To allow for this movement, Signaline Retractable Cable is used to connect the Linear Heat Detector Cable fitted around the circumference of the floating roof with a junction box at the top of the tank. As the roof drops lower, the spring like cable extends and as the roof rises the cable retracts into a closed spring coil.



### **Signaline Auto Cable Collector**

The mechanical turnbuckle with extending cable is the ideal solution to connect Signaline Linear Heat Detection from the top of a floating roof tank rim seal with the top of the tank. The cable retracts into the enclosure creating a neat and tidy solution.



### **Signaline Water** Linear Water Detection

Signaline Water is a simple and reliable solution for water detection. The Signaline Linear Water Detection cable continuously monitors for the presence of water providing fast and accurate alarm of water leak, ingress or flood events.

Designed to be integrated into a wider building management system or as a standalone system, Signaline

Linear Water Detection can play a vital role in securing critical assets from water damage. Typical installations include data centres, command control centres and electrical cabinets amongst others.

The system is made up of a simple plug and play controller and detection cable. The controller requires no programming or

| Key points               |                   |
|--------------------------|-------------------|
| ✤ Easy installation      | 券 Up to 1000m of  |
| * Long alarm zones       | cable per zone    |
| 🛠 Quick alarm activation | 🛠 Compatible with |
| * Robust detection cable | or Conventional   |
| * No ongoing maintenance | Systems           |







specialist tools, allowing for quick and easy installation.

The robust detection cable requires no ongoing maintenance and can have a cable run of up to 1000m. For standalone systems we can offer a water detection alarm control panel and connection boxes.

detection

Addressable Fire Detection Easy setup with no special tools required

Linear Water Detection

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### **Signaline WD** Linear Water Detection Cable

Signaline WD Water Detection Cable is a unique 4 core twisted cable that is tightly bound in a nylon fishnet braid, enabling water to easily come into contact with the sensitive elements of the cable. Two of the cores provide low voltage and low current power to the circuit while the other 2 cores are sensitive to the presence of water.

• Plug and Play installation

- IP67 connectors
- Up to 1000m single zone
- Zero maintenance

CE

# Signaline WDM-KM

Linear Water Detection Monitor

The Signaline WDM-KM is a completely sealed compact device that monitors the Signaline WD Water Detection cable. The Signaline WD Water Detection Cable simply plugs into a socket on the Signaline WDM-KM for a secure and reliable connection. The presence of water on the Signaline WD triggers the alarm relay. A break in the detection cores or power loss to the module will trigger the fault circuit. The simplicity and flexibility of the system allows the Signaline WDM-KM and Signaline WD to be

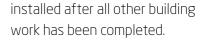






Linear Water Detection







- Plug and Play installation
- IP67 enclosure
- Can monitor 1000m of cable
- Low current consumption



Linear Water Detection

SIGNALINE

### **Signaline Water Detection Control Panel**

Our Signaline Water Detection Control Panels provide a complete solution in circumstances where a fully monitored system is required.

Available in a small compact enclosure, the Signaline Water Detection Control Panel comes in either 2 or 4 zones.

The panels feature the most up to date functionality, including dependency modes, input/ output matrix programming

- Simple installation and programming
- Can monitor up to 4000m of detection cable
- Quick alarm identification
- Battery back-up

CE

• Sounder and relay outputs

and two monitored sounder circuits. The panels come with a quick start guide and have a one-person walk test mode to ensure that installation and maintenance of your Signaline Linear Water Detection system is quick and easy.



### **Signaline Water Lead-in Cable**

Site layouts often mean that the Signaline WDM-KM must be placed in a control room or with other detection devices. This means the sensor cable cannot be plugged directly into the monitor. Where this situation occurs Signaline can supply a terminated 10m length of non-sensing lead-in cable.

This simple solution can therefore ease installation and reduces costs.



- IP67 connectors











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