Keeping fire risks under control – in tunnels and industrial applications

SecuriSens LIST line-type heat detector

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Localisation of fires in next to no time.

Fire detection with SecuriSens LIST heat detectors begins where all other detectors reach their limits.

Dust, heat, smoke, exhaust fumes and other interference factors have a significant impact on detecting fires when using conventional fire detectors. However, it is exactly under such difficult conditions that the fire risk is so great and it is vital to ensure quick and reliable detection – such as in tunnels, industrial facilities, power plants and car parks. With the SecuriSens LIST line-type heat detectors, Securiton provides systems that can enable the rapid localisation of a fire – even when used in harsh, aggressive environments.

SecuriSens LIST detects incipient fires in record time. The sensor cable contains highly sensitive addressed sensors whose response behaviour can be programmed individually. The sensor spacing in the cable can also be selected individually, meaning you can then set up a monitoring system that is tailored exactly to the specific risk profile of your object and the local installation regulations. You can then profit from extremely precise, rapid and reliable fire detection.

Two systems, one principle – maximum safety.

The SecuriSens LIST system with SEC 20 sensor cable ensures maximum safety in tunnels and when monitoring large areas. The SecuriSens d-LIST system with SEC 15 sensor cable is primarily used in industrial facilities and when monitoring smaller areas. Both systems are the result of a wealth of specialist expertise. Evaluation of the sensor data is made according to the maximum temperature behaviour and differential behaviour. In doing so, proven evaluation algorithms minimise the risk of false alarms. Configuration is tailored exactly according to your requirements. You can specify the detection areas easily with independent alarm thresholds as well as individual pre-signal thresholds.

Every second counts when reacting to an emergency, which is why the systems have transparent communication without any friction losses. They offer interfaces to superordinate systems and open data protocols, such as Modbus or IEC. The temperature values and events are visualised on the cable terminal processor or the PC.

The SecuriSens LIST systems also open up interesting options in terms of dimensioning – several cable terminal processors can be networked with one central master.

SecuriSens LIST – the advantages:

- Precise localisation of the alarm
- Quickest possible alarm transmission thanks to highly sensitive sensors
- Individual alarm threshold can be configured for each detection area
- False-alarm-proof
- Simple installation, no maintenance required
- VdS approval in compliance with EN 54-5 / EN 54-22, Class A1

Best possible conditions for long-term use.

The sensor cable – intelligence from start to finish.

Robust, clever and precise – the SEC 15 and SEC 20 electronic sensor cables impress thanks to their alertness, reliability and practically unlimited possibilities. Their measuring points record the temperature at a resolution of 0.1 °C. The functionality of all sensors is permanently checked by the cable terminal processor so that uninterrupted monitoring of your object is ensured.

With their sophisticated design, the sensor cables offer the best possible conditions for extremely long-term use. The closed aluminium shielding protects against damaging EMC influences. The halogen-free outer sheathing is flame retardant according to DIN EN 60332 and extremely durable. The sensors still work reliably, even when the temperature reaches a maximum of 120 or 200 °C for short periods. Cable strain relief is provided on the fill material surrounding the two-wire or four-wire ribbon cables. Another positive aspect is that these clever cables are maintenance-free and can be repaired quickly and easily in the event of damage.

Outstanding flexibility – because every object needs individual protection.

The spacing between sensors can be freely selected, and it is even possible to combine different sensor spacing distances. You can see where the sensors are located according to the markings on the outer sheathing of the sensor cable. Another highlight (and one that is absolutely unique on the market) is the problem-free branching of the cable harnesses. External individual sensors in metal housings are available for special applications and can be easily connected to the SecuriSens d-LIST system. Different sensor cable areas can be connected together with one signal cable.

The LIST sensor cable – sensitivity and durability in one:

- Wide temperature range from -55 °C to short-term temperatures of +200 °C (depending on the sensor cable)
- Resolution of 0.1 °C
- Freely selectable sensor spacing from 0.25 metres / 0.5 metres
- Bidirectional communication between cable terminal processor and sensor cable
- Durable and immune to environmental influences
- High flexibility in system topography

Intuitive operation.

Safety in tunnels – the SecuriSens LIST.

The SecuriSens LIST SEC 20 line-type heat detector is the ideal fire detector for use in tunnels. It consists of the SEC 20 sensor cable and the LISTcontroller. The system offers reliable monitoring of sections of up to 3,200 metres in length, or up to 350 sensors. Up to two sensor cables can be connected to one LISTcontroller (2 x stub, loop or in redundant operation with a second LISTcontroller). The detection and alarm thresholds can be configured for a maximum of 254 different alarm sections. Every ten seconds, the system measures the temperature on the sensors and compares this with the programmed threshold values.

The LISTcontroller offers a great deal of convenience both before and during operation. The configuration and operating data can be transferred from a USB stick. The log files which are recorded automatically in an event can also be read out easily via the USB stick. The plain text notifications in different languages on the controller display and the navigation and function keys allow for intuitive operation.

SecuriSens LIST – the strengths:

- Monitors sections of up to 3,200 metres
- Maximum 350 sensors
- Up to 254 individually configurable detection areas
- Stub, loop-back and redundant installation
- Quick and reliable evaluation and signalisation
- Plain text notifications in various languages

Perfect fire protection in industrial facilities – the SecuriSens d-LIST.

The SecuriSens d-LIST line-type heat detector with SEC 15 sensor cable is ideally suited to applications with small monitoring areas. Two sensor cables with a maximum length of 250 metres each can be connected to the SCU 800 (sensor control unit) and put into operation at the touch of a button – and all without special aids or advance knowledge of the system. The monitoring system with a maximum of two sets of 99 sensors can be universally integrated in fire alarm systems and also offers mobile application possibilities. Several SCU 800 units can be networked easily for monitoring larger areas. The d-LIST system can also be expanded with individual temperature sensors in metal housings for monitoring critical areas such as drive units on conveyor belts and escalators, among others.

The current operating state can be seen at a glance on the display of the cable terminal processor. The remote control unit is particularly practical and efficient, and can be used to keep track of up to 31 cable terminal processors and their systems. It saves all notifications and displays them precisely in plain text – all in order according to the processor, sensor number and detection area and in your preferred language. Additionally, the operating states of all sensors can be called up easily on the remote control unit.

SecuriSens d-LIST – your benefits:

- Monitors sections of up to 2 x 250 metres
- Maximum 2 x 99 sensors
- Efficient fire protection in industrial facilities, power plants, cold stores, car parks, mines, ships and more
- Stub installation
- Cost-effective solution for meeting stringent safety requirements and standards
- Can be expanded with individual sensors in a separate housing