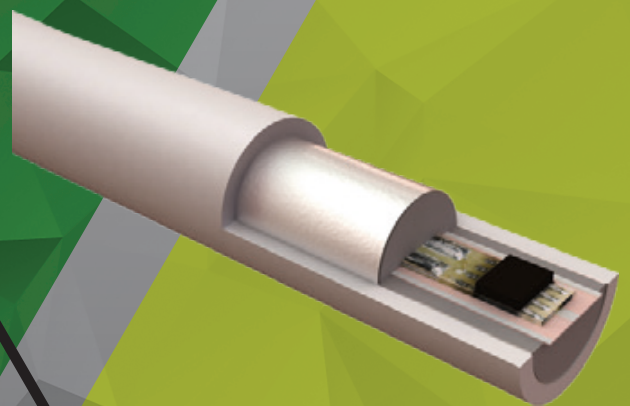


# SecuriHeat d-LIST Addressable Linear Heat Detection

Version 1.0 2023



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# 1. Introduction

## SecuriHeat d-LIST heat detector

### Highly flexible protection, because every object is different

The SecuriHeat d-LIST line type heat detector with the SEC 15 sensor cable is ideal for monitoring small areas. Two sensor cables, each up to 350 metres in length, can be connected to an SCU 835 sensor control unit and put into operation at the touch of a button, with no need for additional technical equipment or previous knowledge. Featuring up to two times 100 sensors, the system can be integrated into a wide range of fire detection and alarm systems, including mobile applications (vehicles).

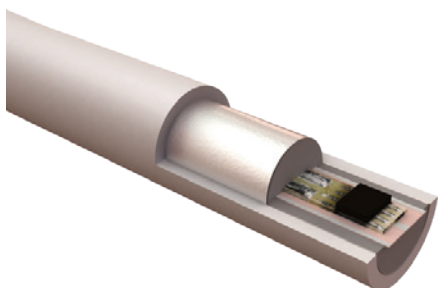
Multiple SCU 835s can be networked for monitoring larger areas. The d-LIST system can also be supplemented with individual temperature sensors in metal housings for monitoring critical infrastructure such as conveyor belt or escalator drives. The sensor control unit displays the current operating state for at-a-glance reassurance.

The SCU 835 includes a Modbus RTU and TCP interface for access by other systems, and the XLM35 module provides a direct connection to the SecuriFire fire alarm control panel.



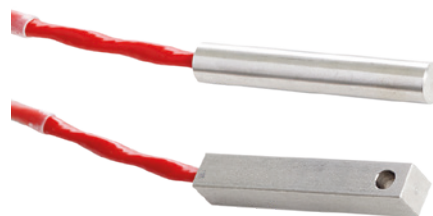
### SecuriHeat SCU 835 for small objects

- Cable length up to 2 × 350 m
- Up to 5 derivation options
- VDS approval according to EN 54-22:2020-07



### SEC 15 cable

- Sensor spacing 1 to 10 m
- Diameter 15 mm
- Operating temperature -40 °C to +85 °C
- Halogen-free
- Aluminium sheath protects against environmental influences



### Single sensor

- Round or square sensors available
- Material: stainless steel
- For use with the CBO 15-ESD box only



**SecuriHeat d-LIST heat detectors, for performance where other systems fail.**

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 at its greatest. It is vital to ensure quick and reliable detection –be it in tunnels, industrial facilities, power plants or car parks.

With the SecuriHeat d-LIST line-type heat detectors, Securiton provides systems that can enable the rapid localisation of a fire – even when used in harsh, aggressive environments.

**Safety in industrial facilities – SecuriHeat d-LIST.**

The SecuriHeat 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 350 metres each can be connected to the SCU 835 (sensor control unit) and put into operation at the touch of a button – without specialist tools or knowledge. This monitoring system, with a maximum of two sets of 100 sensors, can be universally integrated into wider fire alarm systems. Several SCU 835 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 belt conveyors and escalators, for example.

**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 by 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. Individual external sensors in metal housings are available for special applications and can be easily connected to the SecuriHeat d-LIST system. Different sensor cable areas can be connected with one signal cable.

**Product**

The descriptions and technical data included in this catalogue are up-to-date at the time of release. We reserve the right to make alterations to them, particularly where justified by technological advancements. The illustrated products may also differ visually from the products supplied as a result of continuous further development of products.

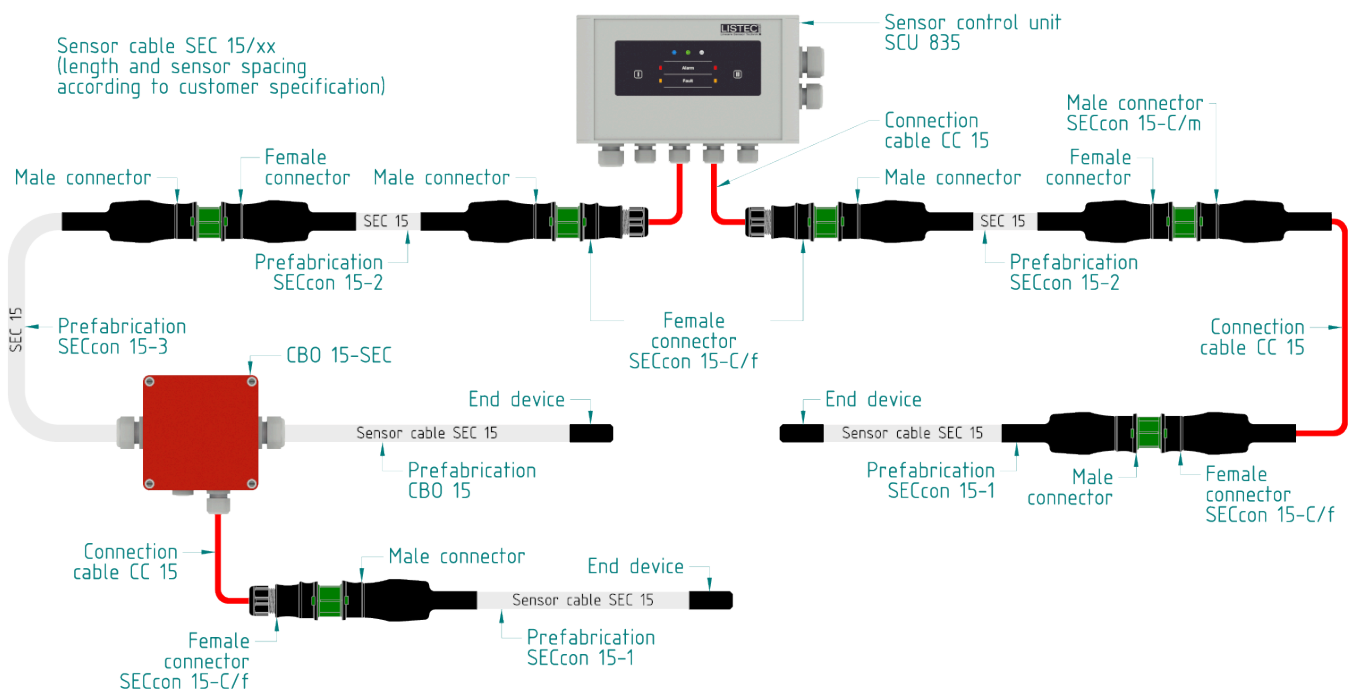
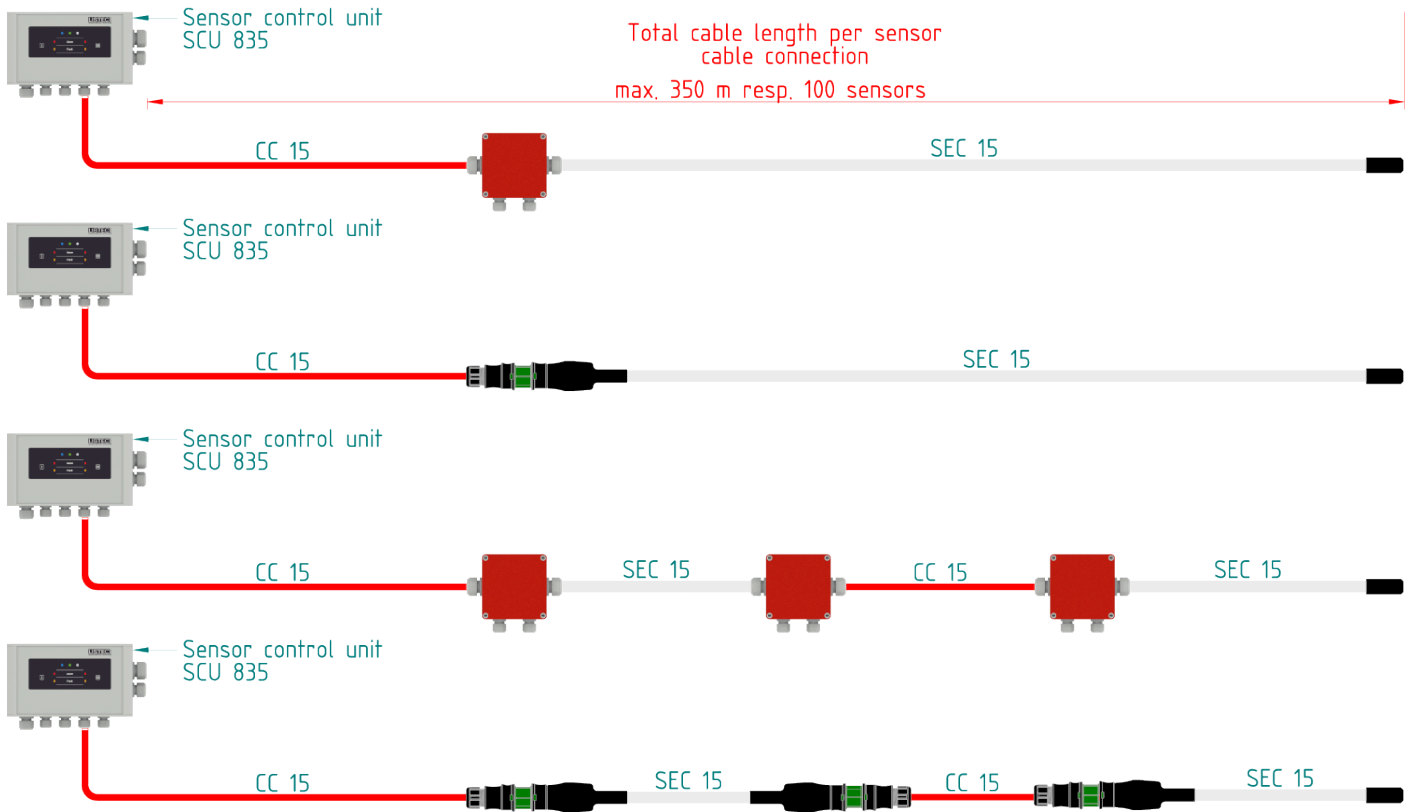
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## 2. System Overview

### d-LIST SYSTEM DESIGN

Typical installations of the SCU 835 d-List controller with the SEC15 sensor cable



### 3. d-LIST Processor Unit

**SENSOR CONTROL UNIT**



**SEC-SCU-835**

d-LIST is a temperature measuring system or a resettable linear heat detector according to EN 54-22, based on a sensor cable. Due to its closed cable construction and the high measuring resolution, the system can be used even under the harshest environmental conditions.

A fire alarm is generated if either a given maximum threshold is exceeded, or if an increase in temperature takes place within a certain time (differential evaluation). The two thresholds (set-points) can be set individually for each of the attached sensor cables.

The measurement resolution of 0,1° gives the system a high sensitivity. The tried and tested algorithms used in the evaluation eliminate false alarms due to natural temperature variations.

Operating voltage:	10.5 to 30 VDC
Power consumption:	150 mA
Operating temperature:	-25°C to +70°C
Weight:	SCU835: 1,95 Kg
Dimensions (HxWxD):	289.5 x 177.5 x 91 mm
Material:	aluminium

**Approvals**

VdS-Approval:	G 221004
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Accessories		
Relay board 16 contacts	REL 835	62-4001004-01-02
Accessory bag relais board REL 835	ACCS-AP REL 835	62-4001009-01-01
Connectors for communication ports	AP2 DLCON/SCU8 35	62-4001023-01-01
Mounting plate BX-OI3	AP BX-OI3	62-4001002-01-01
Mounting plate XLM 35	AP XLM 35	62-4001001-04-01

## 4. d-LIST Cable

### LINEAR SENSOR CABLE



<b>SEC-LSC-15-01</b>	sensor distance 1m
<b>SEC-LSC-15-02</b>	sensor distance 2m
<b>SEC-LSC-15-03</b>	sensor distance 3m
<b>SEC-LSC-15-04</b>	sensor distance 4m
<b>SEC-LSC-15-05</b>	sensor distance 5m
<b>SEC-LSC-15-10</b>	sensor distance 10m

The cable is able to measure temperatures from -40°C to +85°C (for short periods +120°C) with a resolution of 0,1° Celsius.

Cable structure:

- Hybrid circuits mounted on a 2 core flat flexible cable
- Filling material with strain relief, which secures the cable in case of fire
- Aluminium shield
- Halogenfree cable sheath; flame retardent and non-corrosive, with sensor marking

Operating temperature:	-40°C to +120°C
Weight:	0,35 kg / m
Sheath material:	HM4 mixture, halogen free, flame retardant
Color:	grey

#### Approvals

VdS-Approval:	G221004
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## 5. d-LIST Single Sensors

### EXTERNAL SENSOR - RECTANGULAR



<b>SEC-ESD-A5-EL-01</b>	1m
<b>SEC-ESD-A5-EL-05</b>	5m
<b>SEC-ESD-A5-EL-10</b>	10m

Stainless steel sensor A5 for use with the d-LIST-System, whereby all sensors are connected in parallel via standard terminals. These sensors can be used together with SEC15 sensor cable and the control unit SCU835.

Design: rectangular 8 mm

Operating temperature:	-40°C to +150°C
Material:	Stainless steel

### EXTERNAL SENSOR - ROUND



<b>SEC-ESD-A5-RL-01</b>	1m
<b>SEC-ESD-A5-RL-05</b>	5m
<b>SEC-ESD-A5-RL-10</b>	10m

Stainless steel sensor A5 for use with the d-LIST-System, whereby all sensors are connected in parallel via standard terminals. These sensors can be used together with SEC15 sensor cable and the control unit SCU835.

Design: round 8 mm

Operating temperature:	-40°C to +150°C
Material:	Stainless steel



## 6. d-list Accessories

### MOUNTING MATERIAL

#### Clamps



Cable clamp for SEC 15  
delivery unit: 100 pcs

**SEC-LSC-15-CLIC**



Pipe clamp for SEC 15 with locking clip

**SEC-LSC-15-MDC**

#### Various mounting material



Stainless steel screw to mount CLIC 15 cable clamp  
delivery unit: 100 pcs

**SEC-LSC-CLIC-SCREW**



Nylon anchor to mount CLIC 15 cable clamp  
delivery unit: 100 pcs

**SEC-LSC-CLIC-ANC**



Stainless steel cable clamp, grade 316, stainless steel  
dowel and cable fastener must be ordered separately

**SEC-LSC-MDJ-316**



Stainless steel dowel grade 316, to mount MDJ-316

**SEC-LSC-ANC-316**



Stainless steel cable clamp, grade 926, stainless steel  
dowel and cable fastener must be ordered separately.

**SEC-LSC-MDJ-926**



Stainless steel dowel grade 926, to mount MDJ-926

**SEC-LSC-ANC-926**



Cable fastener for line mounting

**SEC-LSC-FEMC**



Stainless steel cable fastener for line mounting

**SEC-LSC-FECT**

**CONNECTION BOX**



**SEC-CBO-15-SEC**

Connection unit for one or two temperature sensor cable SEC15 including an universal connection module UCM. If it is not possible to connect the sensor cable directly to the sensor control unit SCU835, the connection cable CC15 can connect sensor control unit and sensor cable via the connection box. In the box the connection cable and the sensor cable are linked together via the connection module UCM. If short transmission lines are linked the universal connection module has the possibility to activate adaptation resistors.

Protection class:	IP66
Operating temperature:	-35°C to +60°C (short period +80°C)
Dimensions (HxWxD):	130 x 130 x 75 mm
Material:	glass-fibre reinforced, polycarbonat

**Connection Box**



**SEC-CBO-15-ESD**

Connection unit for up to eight external sensors ESD or four single sensors and one LIST-cable SEC15. The external sensors can be connected to the SEC15 sensor cable bus via the connection box. It is possible to connect up to eight single sensors to the bus or four sensors and a sensor cable. Every connection has an adaption resistance. This can be activated, if needed, for example for short adaptation resistors.

Protection class:	IP66
Operating temperature:	-35°C to +60°C (short period +80°C)
Dimensions (HxWxD):	130 x 130 x 75 mm
Material:	glass-fibre reinforced, polycarbonat

## CONNECTION CABLE

### SEC-LSC-15-CC








LISTEC supply cable 1x2x0.8, shielded, JE-H(ST)H E30, for an SEC 15 sensor cable.


If it is not possible to connect the sensor cable directly to the sensor control unit SCU835, the connection cable CC15 can connect sensor control unit and sensor cable via the connection box.

Operating temperature:	-30°C to +70°C
Sheath material:	HM2 compound, flame retardant
Color:	red

## CABLE ACCESSORIES

	Sensor cable with termination cap, CLB2 and shield connector.	<b>SEC-LSC-15-FITBOX</b>
	Sensor cable pre-fabrication with plug, 3-pin and termination cap.	<b>SEC-LSC-15-CON-1</b>
	Sensor cable pre-fabricated with plug and socket, 3 pin	<b>SEC-LSC-15-CON-2</b>
	Coupling with socket, 3-pin	<b>SEC-LSC-15-CON-CS</b>
	Coupling with plug, 3 pin	<b>SEC-LSC-15-CON-CP</b>

## TOOLS

	LIST crimping tool for 2-and 4-core flat cable connectors	<b>SEC-LSC-CRIMPER</b>
	Cable scissors for SEC sensor cable	<b>SEC-LSC-CUTTER</b>

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