

***** LIST Sensor Cable SEC20 ***** LIST Sensor Cable SEC20 ****



SecuriSens LIST

Product Catalogue 2016

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Introduction

SecuriSens LIST heat detectors, 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.

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 (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.

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 LIST system. Different sensor cable areas can be connected together 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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How to read the catalogue

Example of a typical entry for an item

Type & Article Number
Please quote this number when making an enquiry or ordering


Cable clamp **62-8000300-00-00**

CLIC 17

Cable clamp for SEC 20
100 pieces per packaging unit.

Technical data

| | |
|-----------|------------------------|
| Material: | Polyamid, halogen free |
| Weight: | 5 g |
| Colour: | Grey RAL 7035 |

 **Illustration** **Description and technical data**

1. Processor Units

Control and Evaluation Unit



Lcon SEC (Standard)

62-2000354-00-00

Cable terminal unit with a sensor cable connection. The LIST controller is the central control unit and cable terminal processor for the SEC 20 sensor cable. With an ARM9™ embedded processor and two peripheral processors it provides the evaluation and signaling. Detection and alarm threshold values can be differently programmed for up to 254 alarm sections. Used in pairs and enhanced with RDT function, LIST controllers LB guarantee full cable and device redundancy.

Scope of delivery:

1x connecting cableVK24-S4-KL-03

1x connecting cableVKI/O-S4-KL-03

1x connecting cableVKSEC-S4-KL-03

Technical data

| | |
|--------------------------|---|
| Contact voltage: | 48 V DC / 32 V AC max |
| Supply voltage: | 9,5 ... 36 V DC |
| Contact current: | 250 mA max. (resistive load) |
| Input: | 1 x external reset (5 V ... 36 V DC) |
| Ambient temperature: | -5 °C ... +70 °C, |
| Current draw at 24 V DC: | Normal 175 mA Alarm 212 mA |
| Power consumption: | Max. 5 W |
| Relay outputs: | 1 Relay for fault (= active without power) 1 Relay each for alarm, pre-alarm and frost-alarm |
| Dimensions (HxWxD): | 482,6 x 43,6 x 313,5 |
| Material: | Aluminium |
| Weight: | 2,6 kg |
| Evaluation: | heat |

Control and Evaluation Unit



Lcon LB (with loop function)

62-2000355-00-00

Cable terminal unit with a sensor cable connection. The LIST controller is the central control unit and cable terminal processor for the SEC 20 sensor cable. With an ARM9™ embedded processor and two peripheral processors it provides the evaluation and signalling. Detection and alarm threshold values can be differently programmed for up to 254 alarm sections. Used in pairs and enhanced with RDT function, LIST controllers LB guarantee full cable and device redundancy.

Scope of delivery:

1x connecting cableVK24-S4-KL-03

1x connecting cableVKI/O-S4-KL-03

2x connecting cableVKSEC-S4-KL-03

Technical data

| | |
|--------------------------|---|
| Contact voltage: | 48 V DC / 32 V AC max |
| Supply voltage: | 9,5 ... 36 V DC |
| Contact current: | 250 mA max. (resistive load) |
| Input: | 1 x external reset (5 V ... 36 V DC) |
| Ambient temperature: | -5 °C ... +70 °C, |
| Current draw at 24 V DC: | Normal 175 mA Alarm 212 mA |
| Power consumption: | Max. 5 W |
| Relay outputs: | 1 Relay for fault (= active without power) 1 Relay each for alarm, pre-alarm and frost-alarm |
| Dimensions (HxWxD): | 482,6 x 43,6 x 313,5 |
| Material: | Aluminium |
| Weight: | 2,6 kg |
| Evaluation: | heat |

RDT-Function for LIST controller



Lcon RDT

62-4000306-00-00

Redundancy control:

If a fully redundant system is required, two LIST controllers always work together in pairs. Both communicate with each other, both have the complete information, and if necessary take on the tasks of the other one (cable break, device failure).

This function must be ordered separately.

I/P-Interface und Protocol

Lcon I/P Modbus (Modbus TCP)

62-4000314-00-00

Lcon I/P IEC (IEC 60870-5-104)

62-4000314-01-00

Software function for LIST controller.

Relay Module



RELMOD

62-2000413-00-00

Relay module with 16 relays and 8 inputs.

- Very low energy consumption
- Coding Switch for module address (1 ... 16)
- Inputs to remotely activate revision-mode and to initiate alarm simulations
- Inputs for external alarm- and fault-handling signals
- Input to trigger timer-controlled deactivation of differential temperature monitoring

Technical data

| | |
|--------------------------|--|
| Contact voltage: | 48 V DC / 32 V AC |
| Contact current: | 250 mA max. (resistive load) |
| Supply voltage: | 10 ... 36 V DC |
| Current draw at 24 V DC: | 56 mA (Normal) 105 mA (Alarm) |
| Power consumption: | Max. 2,4 W |
| Relay outputs: | 16 x toggle contacts for alarm, pre-alarm, fault and frost-alarm (loop resistors may be inserted for closed-circuit monitoring) |
| Optocoupler input: | 8x electrically isolated, 5 ... 28 V DC signals |
| Ambient temperature: | 0 °C ... +70 °C |
| Dimensions (HxWxD): | 167 x 113,3 x 66,2 mm |
| Case material: | Aluminium |
| Weight: | 0,61 kg |

Remote Display Unit



RDU 316

62-2000493-00-00

Alphanumerical remote display, coloured background, 3 lines, 16 characters each, with menu-keys and common LEDs; RS 485 interface to communicate with a maximum of 31 SCU 800 control units; allow the identification of a sensor number in case of alarm

- stores all messages incl. date & time
- indicates messages with unit and sensor number, alarm zone
- test mode, which gives the status of the sensors
- clear text display in various languages

Technical data

| | |
|--------------------------|--------------------------------------|
| Current consumption 24V: | 40 mA (Normal) 100 mA (Alarm) |
| Power supply: | 10.... 36 V DC |
| Protection class: | IP 66 |
| Ambient temperature: | 0 °C ... +60 °C |
| Dimensions (HxWxD): | 110 x 140 x 60 mm |
| Case material: | glass-fiber reinforced polycarbonate |

2. Cable

Cables List



| | | |
|------------------|----------------------|-------------------------|
| SEC 20/02 | (Sensor spacing 2m) | 62-2000385-00-00 |
| SEC 20/04 | (Sensor spacing 4m) | 62-2000388-00-00 |
| SEC 20/05 | (Sensor spacing 5m) | 62-2000389-00-00 |
| SEC 20/08 | (Sensor spacing 8m) | 62-2000393-00-00 |
| SEC 20/10 | (Sensor spacing 10m) | 62-2000394-00-00 |

"Can be used in a temperature range of -40°C to +120°C (briefly +200°C) and detects temperatures with a resolution of 0.1°C. Cable terminal processor and sensors communicate bi-directionally. The cable sheathing is marked with the sensor designations.

Cable design:

- Ribbon cable conductor, 4-core with mounted hybrid switches
- Filling material with strain relief (for cable protection in the event of a fire)
- Integrated aluminium shield
- Outer sheath halogen-free and flame resistant

Technical data

| | |
|----------------------------|--|
| Operating temperature: | -40 °C ... +120 °C up to +200 °C short term |
| Measuring temperature: | -40 °C ... +200 °C |
| Cable diameter: | Typ. 18 mm |
| Flat conductor resistance: | Typ. 85 Ω / km (single conductor) |
| Sheath material: | HM4 mixture, halogen free, flame retardant |
| Weight: | Typ. 0,45 kg / m |
| Sheath colour: | Grey |

3. Accessories List

Cable clamp



CLIC 17

62-8000300-00-00

Cable clamp plastic for SEC 20
100 pieces per packaging unit

Technical data

| | |
|-----------|------------------------|
| Material: | Polyamid, halogen free |
| Weight: | 5 g |
| Colour: | Grey RAL 7035 |

Mounting device



MDP 20

62-4000319-00-00

Cable clamp CLIC 17 with dowel and stainless steel screw.
100 pieces per packaging unit

Technical data

| | |
|---------|---------------|
| Colour: | Grey RAL 7035 |
|---------|---------------|

Mounting device



MDJ 40

62-4000329-00-00

Stainless steel clip, grade 1.4571, with stainless steel
dowel and cable fastener.

Technical data

| | |
|-----------|-----------------|
| Material: | Stainless steel |
| Weight: | 100 g |

Connection Box



CBO 20/0 (for two SEC20)

62-2000534-00-00

Connection box between two sensor cables

Technical data

| | |
|------------------------|--------------------------------------|
| Protection class: | IP66 |
| Material: | glass-fiber reinforced polycarbonate |
| Colour: | RAL 7032 grey |
| Operating temperature: | -30°C+90°C |
| Weight: | 1.6 Kg |
| Dimensions (HxWxD): | 244x164x101 mm |

Spare parts:

| Description | Type | Art. No. |
|---------------|--------------|------------------|
| Accessory Bag | CBO 20/0 Acc | 62-4000431-00-00 |
| Screw for CBO | CBO 20 Screw | 62-6000653-00-00 |

Connection Box



CBO 20/1 (to link a SEC20 with a CC 20) **62-2000535-00-00**

CBO 20/3 (to link up to three SEC with up to two CC20) **62-2000536-00-00**

Box for the connection of sensor cable SEC 20, incl. connection module CCM with over-voltage-protection.

Technical data

| | |
|------------------------|--------------------------------------|
| Protection class: | IP66 |
| Material: | glass-fiber reinforced polycarbonate |
| Colour: | RAL 7032 grey |
| Operating temperature: | -30°C+90°C |
| Weight: | 1.6 Kg |
| Dimensions (HxWxD): | 244x164x101 mm |

Spare parts:

| Description | Type | Art. No. |
|---------------|------------------|------------------|
| Accessory Bag | CBO 20/1 Acc | 62-4000432-00-00 |
| Accessory Bag | CBO 20/3 Acc | 62-4000436-00-00 |
| Accessory Bag | CBO 20/3 Acc CCM | 62-4000437-00-00 |
| Screw for CBO | CBO 20 Screw | 62-6000653-00-00 |

Connection Cable



CC 20 **62-8000341-00-00**

LISTEC supply cable 2x2x0.8, shielded, JE-H(ST)H E30, for an SEC 20 sensor cable

If it is not possible to connect the sensor cable directly to the sensor control unit, the connection cable CC 20 can connect sensor control unit and sensor cable via the connection box.

Technical data

| | |
|------------------------|-------------------------------|
| Operating temperature: | -30 °C ... +70 °C |
| Sheath material: | HM2 compound, flame retardant |
| Colour: | red |

LIST cable tester



LCT 20 **62-2000417-00-00**

Sensor and cable tester for LIST sensor cable SEC 20; for fast testing of LIST sensor cables immediately after installation or temporary storage.

- USB connection
- Battery operation
- Aluminium housing with shoulder straps
- Power supply unit

Technical data

| | |
|------------------------|--|
| Sensor address range: | 0 ... 1023 |
| AC power adapter: | Input: 100 – 240 V AC 50/60 Hz 0.5 A Output: 15 V DC, 1200 mA |
| Operating temperature: | -10 °C ... +60 °C |
| Dimensions (HxWxD): | 206,0 x 168,0 x 36,0 mm |
| Case material: | Aluminium |
| Weight: | 1,1 kg (including shoulder-strap) |

Power Supply



PS 2402 (2A) **62-2000251-00-00**

PS 2408 (8A) **62-2000252-00-00**

Uninterruptable power supply, VdS approved; in wall mounted cabinet or as 19" sub-rack (6 height units) available

Technical data

| | |
|------------------------|---|
| Mains voltage: | 230 V AC +10/-20% |
| Mains frequency: | 47 ... 63 Hz |
| Output voltage: | Typ. 27,6 V DC at 20 °C |
| Output current: | |
| 2A version | Max. 2,3 A |
| 8A version | Max. 8,4 A |
| Operating temperature: | -5 °C ... +50 °C |
| Relative humidity: | Max. 95% at 40 °C (No condensation) |
| Dimensions (HxWxD): | 230,0 x 150,0 x 54,0 mm (power supply module only) 478,0 x 266,0 x 63,0 mm (mounted on 19" front-panel, w = 19", h = 6U) |
| Weight: | 0,5 kg power supply module only 2,0 kg mounted on 19" front-panel |
| Front-panel colour: | RAL 9002, grey-white |

Fibre optic converter



FOC 485 **62-8000369-00-00**

Interface converter for RS 485 to fibre optic, single and multi.

Technical data

| | |
|------------------------|------------------------------------|
| Operating voltage: | 18 ... 32 VDC (typ. 24 VDC) |
| Current consumption: | 140 mA at 24 VDC, 110 mA at 32 VDC |
| Power consumption: | < 3,5 W |
| Signal type: | RS 485 |
| Operating temperature: | -25 °C to +70 °C |
| Relative humidity: | <95% (non-condensing) |
| Dimensions (WxHxD): | 35 x 163 x 119 mm |
| Case material: | plastics |
| Weight: | 215 g |
| Protection class: | IP 20 |

Optical fibre converter FOC



LAN-multi (multi-mode) **62-8000370-00-00**

LAN-single (single-mode) **62-8000371-00-00**

Interface converter for LAN to fibre optic

Technical data

| | |
|----------------------------------|----------------------------|
| Operating voltage: | 24 V DC (18-32V) |
| Current consumption at 24 V: | 315 mA |
| Operating temperature: | 0°C+ 60 °C |
| Storage / transport temperature: | -40°C....+ 70°C |
| Relative humidity: | 10% - 95% (non-condensing) |
| Dimensions: | 71 mm x 131 mm x 111 mm |
| Weight: | 0,4 kg |
| Housing: | Plastic case |
| Protection class: | IP20 |

Wall mounted cabinet



CAB 19/12 (12HE) **62-2000415-00-00**

CAB 19/18 (18 HE) **62-2000416-00-00**

19" wall cabinet, completely wired, incl. terminals. For holding a LIST controller, two relay modules, PS 24xx power supply unit and a fibre optic converter

Spare parts:

| Description | Type | Art. No. |
|-----------------------------------|--------------|------------------|
| Accessory Bag | CAB 19 Acc | 62-4000418-00-00 |
| Wall mounting holder for CAB 19/x | CAB WallHold | 62-6000666-00-00 |

Crimping tool



CLCT **62-8000347-00-00**

LIST crimping tool for 2-and 4-core flat cable connectors.

LIST cable cutter



Cutter SEC **62-0000427-00-00**

Cable scissors for SEC sensor cable

SC 15/20

62-2000432-00-00



Service case with tool for repair and connection of sensor cable.

Content:

| Article | Quantity |
|--|----------|
| Tool case | 1 |
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| Cable cutter | 1 |
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| Cable-stripping knife | 1 |
| Selection of 6 screwdrivers | 1 |
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| Electronic side cutter | 1 |
| Side cutter | 1 |
| Multigrip pliers | 1 |
| Combination pliers | 1 |
| Clincher male CLS4 | 15 |
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| Sleeve SEC 20 | 2 |
| Isolating tape | 1 |
| Tape to vulcanize | 1 |

4. Spare Parts

Connection Cable



VKSEC-S4-KL-03

62-4000239-00-00

Pre-assembled connecting cable for connection to sensor cable.

Technical data

Length: 3 m

Connection Cable



VK485-S4-KL-03

62-4000240-00-00

Pre-assembled connecting cable for RS 485 connection.

Technical data

Length: 3 m

Connection Cable



VK232-S4-KL-03

62-4000241-00-00

Pre-assembled connecting cable for RS 232 connection.

Technical data

Length: 3 m

Connection Cable



VKI/O-S4-KL-03

62-4000242-00-00

Pre-assembled connecting cable for control I/O connection.

Technical data

Length: 3 m

Connection Cable



VK24-S4-KL-03

62-4000243-00-00

Pre-assembled connecting cable for power supply.

Technical data

Length: 3 m

Connection Cable



VKLAN-S4-PC-03

62-8000367-00-00

Pre-assembled connecting cable for LAN connection.

Technical data

Length: 3 m

Line monitoring pcb



RELMOD-R

62-4000143-00-00

To hold the loop resistors

Fuse for RELMOD



RELMOD-F

62-6000377-00-00

Fuse for RELMOD, 1 A, 250 V, fast

Shield Connector



SCON 20/1

(one sensor cable)

62-4000317-00-00

SCON 20/2

(two sensor cables)

62-8000382-00-00

For connecting sensor cables

Flat cable connector



CLB 4

(socket)

62-8000317-00-00

CLS 4

(plug)

62-8000318-00-00

Ribbon cable crimping connector, 4-core.
100 pieces per packaging unit.

Clincher Strain Relief



CLVP

62-8000320-00-00

For locking a CLB clincher with pin plug.
100 pieces per packaging unit

End device



END

62-8000503-00-00

End cap for sensor cable SEC 15

Repair-set



N20 Repair

62-2000397-00-00

Shrink sleeve with ribbon cable connection, shield connector, plug and socket, and sealing material.
For connecting two SEC 20 cables.

Connection Module



CCM 3000

62-4000334-00-00

CCM 3000_D

(with over-voltage protection)

62-4000335-00-00

Connection module for one or two sensor cables SEC 20
as junction between sensor cable and connection cable
CC 20.

Drill SDS 3L



SDS 3L

62-8000354-00-00

Drill for setting the MDJ 40 dowels

Setting tool



SWM-SM 50

(for hammer drill)

62-8000412-00-00

Setting tool for MDJ 40 dowel

Setting tool



SWM-H

(for manual mounting)

62-8000413-00-00

Setting tool for MDJ 40 dowel

5. Services

SecuriSens LIST Commissioning Europe

Commission EU **11-500001-01-01**

Commissioning support fee for projects within Europe.

SecuriSens LIST Commissioning Overseas

Commission OvS **11-500002-01-01**

Commissioning support fee for projects at Overseas.

6. Product Type Index

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