



Beam smoke detectors
for challenging environments

SecuriBeam

SecuriBeam is at home in the most challenging locations



Recycling plants

In dirty surroundings such as recycling centres, an industrial beam detector with the capabilities of SecuriBeam ILIA PRO is often the only practical option for detecting fires. This is because point detectors are not able to cope with dust. While advanced aspirating smoke detectors do work in dusty air, they also have their limitations. Meanwhile, linear heat detectors encounter difficulties in detecting fires reliably when they are mounted high overhead on the ceiling.



Animal sheds

In large farm buildings, thousands of animals often live surrounded by flammable materials such as hay or grain. Early fire detection is essential in ensuring the survival of both the animals and the facilities themselves. Even in extremely dusty air, SecuriBeam ensures reliable fire detection as it can differentiate between smoke and dust. Moreover, it is also very cost-efficient thanks to its simple installation and maintenance.



Warehouses and production halls

Whether directly above the conveyor belt or in warehouses, SecuriBeam is the perfect solution for protecting factories and storage facilities. Large spaces can also be reliably monitored with few devices as the SecuriBeam transmitters and receivers have an extensive range. Together with the long maintenance cycles, this is one of the main reasons why SecuriBeam offers outstanding value for money.



Indoor pools

The humid air in indoor pools poses significant problems for many smoke detectors and reduces their service life considerably. This is not the case with SecuriBeam, which offers comprehensive detection for large spaces with just a few transmitters and receivers. Moreover, the ILIA models are also resistant to liquids and can be additionally equipped with drip-resistant glass. This means that they even remain functional when a device is exposed to water splashes.



Aircraft terminals

In huge airport terminals, the positioning of fire alarm systems can pose difficulties. On the one hand, smoke is thinned out by the air conditioning system and has a tendency to settle in layers. At the same time, early fire detection is crucial to evacuating thousands of travellers in a timely fashion. With a range of up to 200 metres, SecuriBeam is a simple and cost-effective mode of detection that enables monitoring over multiple vertical levels.



Shopping centres

In modern shopping centres, visitors walk through connected spaces arranged around a large, multi-storey atrium. This poses a challenge when it comes to fire detection, especially as early warning gives customers enough time to evacuate and is thus absolutely essential. Thanks to its sensitivity and reliability, the SecuriBeam optical fire detector is able to monitor large open spaces without any problems.

Introducing the SecuriBeam family. Set your fire detection demands higher.



ILIA, ERHS0712
ILIA UL, ERHS0712-UL



ILIA white, ERHS0712-1013



ILIA PRO, ERHS0712-PRO

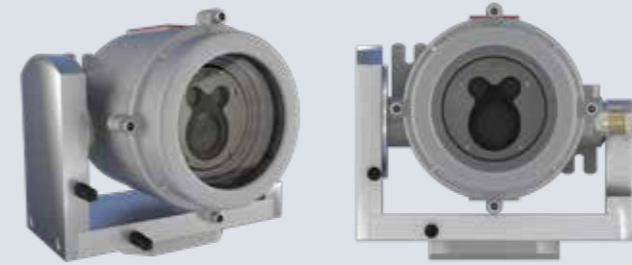
ILIA For use in centres of cultural heritage, atriums, high rooms and airport terminals

- Transmitter/receiver system
- Control unit for operating up to 8 ILIA detectors for parametrisation, testing and maintenance work
- Detection of turbidity and frequency changes caused by flames
- Approvals: VdS, UL, ActivFire, SIL
- Monitoring range: 10 – 200 m
- Protection type: IP65
- Permissible temperature range: -20 °C to +65 °C

ILIA PRO For very harsh environments such as recycling plants, stables and dusty industrial applications

In addition to the features offered by ILIA (see above), ILIA PRO also offers the following benefits:

- Additional, lower sensitivity alarm thresholds
- Larger alarm delay times
- Possibility of setting a pre-alarm



ILIA ATEX

ILIA ATEX For environments at risk of explosions

- Transmitter/receiver system for ATEX environments
- Approvals: ATEX, SIL
- ATEX zones: 1, 2, 21, 22
- Monitoring range: 10 – 120 m
- Protection type: IP66
- Permissible temperature range: -30 °C to +65 °C



G100

G100 For basic applications such as smaller warehouses, shopping centres and museums

- Transmitter/receiver system
- Compact design
- Approvals: VdS
- Monitoring range: 5 – 100 m
- Protection type: IP44
- Permissible temperature range: -20 °C to +55 °C



BSD 535

BSD 535 For basic applications such as warehouses, lobbies, churches and cinemas

- Reflector system
- Compact design
- Approvals: VdS
- Monitoring range: 3 – 100 m
- Protection type: IP31
- Permissible temperature range: -10 °C to +55 °C

The two functional principles of our smoke detectors

ILIA detector with transmitter/receiver system

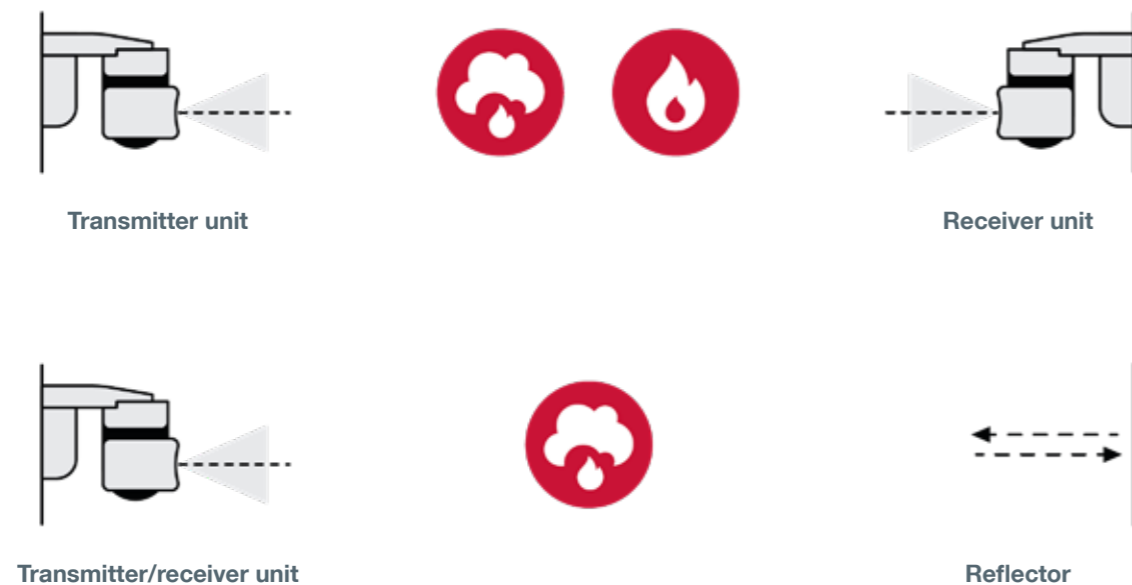
The ILIA detectors in the SecuriBeam series are equipped with two infrared beams (dual-wave technology) and are thus resistant to building movements. The transmitter sends out two infrared beams that are detected by the receiver. The system then inspects the incoming beam according to two different criteria: Firstly, is there any turbidity? This is the result of smoke. Secondly, does the system register a change in frequency of the emitted infrared beam? This is triggered by flames. Double protection against fire is then guaranteed.

BSD 535 with reflective detection system

In the BSD 535 detector, the transmitter and receiver are located in the same housing. The infrared beam hits a reflector and is reflected back from there to the receiver. The device then analyses how much of the transmitted light returns. In the event of turbidity caused by smoke, the system triggers an alarm.

The benefits to you

- 3-in-1 detection – smoke, flames and heat
- All three factors seen during a fire are detected instantly as early as the incipient phase
- Thanks to the discreet, elegant design, the devices also blend in well with their surroundings when visible
- Two infrared beams (dual-wave technology) for improved tolerance against building movements



Eight detectors, one central control unit – for simpler programming and maintenance

Configuration, operation and maintenance: in the ILIA smoke detector family, all this is taken care of by a single control unit. Up to eight smoke detectors can be connected to this unit. The advantage of this is that central access to networked detectors enables applications in inaccessible places and facilitates all subsequent work. This saves both time and money. Direct contact to the smoke detector is only required for mounting.

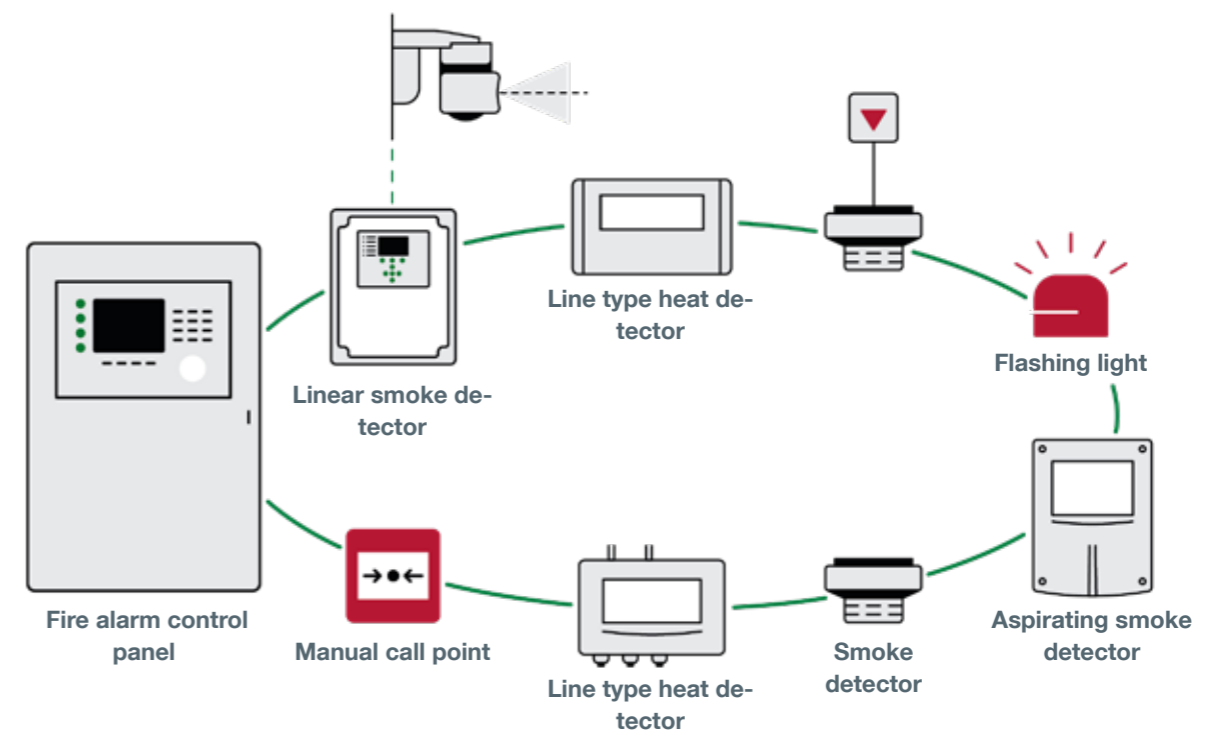


Faster cabling thanks to integration in the SecuriFire fire alarm system

In addition to central operation, the CLI controller also allows for integration into the SecuriFire fire detection loop through an optionally fitted interface card. As a result, installing the cables is faster thanks to full integration as the connection of relay contacts is dispensed with.

The benefits to you

- Ideal for use in hard-to-reach locations
- Simple connection to the SecuriFire fire alarm control panel with full access to all data
- Both programming and maintenance can be carried out quickly and easily thanks to the remote control unit



Highlights of the SecuriBeam family

ILIA

Detection type:

Transmitter/receiver system

Two infrared beams are sent by the transmitter unit. The receiver unit constantly evaluates the beams that are received.

Max. detection distance:

200 metres

Detection principle:

Turbidity and frequency

BSD 535

Detection type:

Reflector system

The infrared beam is sent out by the detector, mirrored by a reflector and sent back to the detector. This then compares the received beam for any attenuation compared to the initial beam.

Max. detection distance:

100 metres

Detection principle:

Turbidity

CLI or CSRLS

The central control units:

1 for 8

Up to eight ILIA detectors can be connected to one central control unit. Your benefit: Programming and maintenance of the detectors can be carried out comfortably from afar.

The connection:

RS-485

Robust, industry-standard RS-485 networking ensures a reliable and stable connection at all times between the ILIA detector and the central control unit.

ATEX environments:

Zones 1, 2 / zones 21, 22

The ATEX version in the ILIA family ensures safety in zones classified as having a risk of explosion as the devices can be used in ATEX zones 1 and 2 (gas) and zones 21 and 22 (dust).



Our special accessories for protection against extreme loads

ILIA detectors work reliably at all times in challenging conditions. But what if the load becomes too high because of external interference? We have the solution – our accessories ensure your fire detection solution remains functional at all times.

ILIA SOHI: protects the plastic housing from damage

If substances are used that can corrode the plastic on the ILIA detector, the ILIA SOHI housing protects the detector from damage as it is made from particularly resistant material.

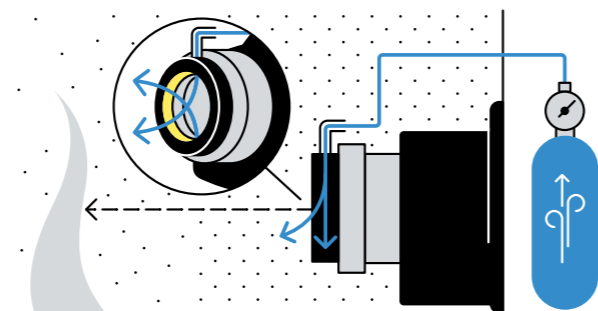
We recommend using ILIA SOHI in the following cases:

- With permanent acid concentration in the air (e.g. caused by machine oils)
- With exceptionally dense and aggressive dust concentration
- With high volumes of water vapour, high-pressure vapour or water jets used for cleaning

ASIS: the ring that prevents deposits before they begin

In surroundings with permanently high dust concentrations in the air or extremely aggressive dust concentrations, the ASIS flush air ring increases the protection offered by ILIA SOHI. It generates a permanent compressed-air barrier that prevents dangerous deposits from accumulating on the lens of the protective housing without negatively affecting the beam on the ILIA detector.

We also recommend this solution if smoke detectors cannot be cleaned (or can only be cleaned with a disproportionate amount of effort) or soiling is so heavy that normal maintenance intervals cannot be met.



SecuriBeam ILIA with compressed-air ring (AirShield)

The benefits to you

- Accessories for protection of the detector can be expanded to various surroundings
- The protective housing and air ring are ideal for use in extreme, harsh and humid environments
- The nano-coated lens prevents dust adhesion

In the SecuriBeam family, all good things come in threes

The smoke detectors in the SecuriBeam family are robust and are manufactured to industrial standards – this makes them durable and protects your investment. They can be installed discreetly and blend in inconspicuously into their environment. Regardless of how high your demands are, SecuriBeam will meet them.

IP protection: 65

All linear smoke detectors in the ILIA family come with protection type IP65 as standard. This means you do not have to worry about penetration by dust or water jets, with high contact protection also ensured. This makes them an ideal choice for protection against fire in dusty industrial environments or other extreme applications.

Lens: nano-coated

Every ILIA detector is equipped with a lens featuring advanced nano-coating. The key advantage is that this repels water droplets, dust, grease and dirt, thus ensuring improved signal quality and a longer service life. If the dust levels in your building are extremely high, then you can protect your smoke detector additionally with our AirShield accessory (see page 10).

In high rooms: discreet


When installed in buildings and halls with high ceilings, the SecuriBeam smoke detectors in the ILIA family remain discreet and inconspicuous. Did you know that the outer walls in buildings like this can move slightly due to the differences in temperature between summer and winter? Despite this, SecuriBeam ILIA detectors retain their full early detection capacity.




All SecuriBeam accessories at a glance

ILIA accessories


Control units:




CSRLS-2




SMLS



CLI




CM-IB




CM-IE

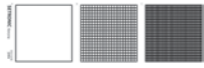
Special applications:




GDP



SACA-G



STF4




SOHI



ASIS

BSD accessories


Additional material:




BRU 535




BRC 535



BRP 535



BAB 535



BRE 535-1

In use around the world with globally applicable certifications

Global product tests and certifications enable the linear smoke detectors in the SecuriBeam family to be deployed in any market in the world.

The smoke detectors in the SecuriBeam family speak a range of languages: globally applicable standards such as NFPA 72, VDE 0833-2, TS 54-14, BS 5839-1, etc. can be met in all confidence when planning a system.

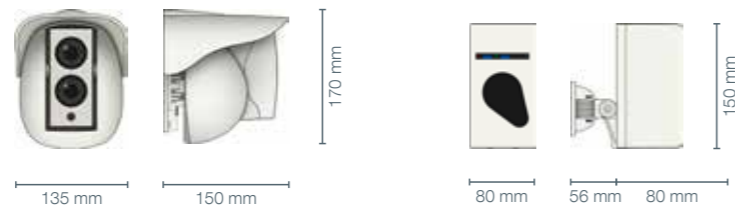
Securiton maintains a global presence. Our head office is in Switzerland, with subsidiaries or local employees in Brazil, China, Dubai, India, Colombia, Malaysia, Mexico, Spain, the UK, Thailand and Vietnam.



The map displays global presence with location pins in North America, South America, Europe, Africa, Asia, and Australia. Certification logos are placed around the map:

- UL** (Underwriters Laboratories) in North America
- CE** (Conformé Européen) in Europe
- VdS** (Verband der Schadenversicherer) in Europe
- EAC** (Eurasian Conformity) in Asia
- ACTIFIRE CERTIFIED** in Australia
- Other regional logos for Malaysia and Indonesia are also present.

SecuriBeam smoke detectors at a glance



BSD 535

G100

Product details

System	Reflector	Transmitter/receiver
Central control unit	No	No
Network-capable detectors per control unit	N/A	N/A
Network technology	–	–
Monitoring range	3 – 100 m	5 – 100 m
Pre-alarm	No	No
Applications	Warehouses, production halls, atriums, lobbies	Atriums, lobbies and industrial halls
Approvals/certificates	VdS	VdS
Colours	White (RAL 9016)	White (RAL 1013)

Technical data

Supply voltage range	12 – 30 VDC	19.2 – 28.8 VDC
Power consumption type 24 VDC	15 mA	51 mA
Operating temperature	–10 to +55 °C	–20 to +55 °C
Relays	2 (1 × alarm, 1 × fault)	2 (1 × alarm, 1 × fault)
Extension	–	–
Integration in SecuriFire	Via relay contact	Via relay contact
ATEX zones	–	–



ILIA

ILIA PRO

ILIA UL

ILIA ATEX

Product details

System	Transmitter/receiver	Transmitter/receiver	Transmitter/receiver	Transmitter/receiver
Central control unit	Yes	Yes	Yes	Yes
Network-capable detectors per control unit	8	8	8	1
Network technology	RS-485 with max. 1200 m cable	RS-485 with max. 1200 m cable	RS-485 with max. 1200 m cable	RS-485 with max. 1200 m cable
Monitoring range	10 – 200 m	10 – 200 m	10 – 200 m	10 – 120 m
Pre-alarm	Yes	Yes	Yes	Yes
Applications	Industrial halls, large warehouses, archives, cinemas	Dusty industrial halls, recycling plants	Industrial halls, large warehouses, archives, cinemas	ATEX environments
Approvals/certificates	VdS, UL, ActivFire, EAC, SIL	VdS, UL, ActivFire, EAC, SIL	UL	ATEX
Colours	Black (RAL 9005), white (RAL 1013)	Black (RAL 9005)	Black (RAL 9005)	Grey (RAL 9006)

Technical data

Supply voltage range	19.2 – 28.8 VDC			
Power consumption type 24 VDC	50 mA / 270 mA			
CSRLS (1 detector / 8 detectors)	50 mA / 270 mA	50 mA / 270 mA	50 mA / 270 mA	50 mA / 270 mA
CLI (1 detector / 8 detectors)	150 mA / 350 mA	150 mA / 350 mA	–	–
Operating temperature	–20 to +65 °C	–20 to +65 °C	–20 to +65 °C	–30 to +65 °C
Relays	2 (1 × alarm, 1 × fault per detector)	2 (1 × alarm, 1 × fault per detector)	2 (1 × alarm, 1 × fault per detector)	2 (1 × alarm, 1 × fault per detector)
Extension	8	8	8	–
Integration in SecuriFire	XLM35 (only with CLI) Via relay contact	XLM35 (only with CLI) Via relay contact	Via relay contact	Via relay contact
ATEX zones	–	–	–	1, 2, 21, 22



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