incite fire

SECURITON

High precision aspirating smoke detectors for every requirement.

PRODUCT BROCHURE

SEC-ASD-531/532/533/535

MM-ASDBA4

SEC-ASD-535-1
One channel
Basic Display

SEC-ASD-535-2
Two channels
Basic Display

SEC-ASD-535-3
One channel
Advanced Display

SEC-ASD-535-4
Two channels
Advanced Display

The complete model range for any application.

The right device for every requirement.

Aspirating smoke detectors from Securiton are among the most precise and most reliable early warning systems against fires. The Securiton ASD detector series impresses by virtue of its unrivalled capabilities. Developed in Switzerland and manufactured in Germany, the detectors are particularly reliable and robust. Thanks to their sophisticated detection technology, they can detect incipient fires immediately.

Whether in IT racks, production halls or large deep-freeze areas, Securiton has the perfect fire protection solution for all safety requirements. Securiton ASD detectors are available in four models, with the main difference between them being the maximum possible monitoring area. This means that protection without compromise is now even more cost effective in small premises. All detectors can be seamlessly integrated into Taktis and Syncro fire detection systems and are extremely durable thanks to their robust design.

Securiton ASD – because performance counts:

- Split-second, highly sensitive reaction to incipient fires
- Lightning fast fire detection and alarm response
- Simple handling
- Four different models for scalable, cost effective operation
- Monitoring areas ranging from single facilities up to areas measuring 5760 m²
- Developed in Switzerland, made in Germany
- Robust and with a very long service life

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SEC-ASD-533
One channel
Basic Display

SEC-ASD-532
One channel
Advanced Display

SEC-ASD-531
One channel
Basic Display

A combination of sensitivity and speed.

In terms of smoke concentration, the alarm sensitivity of the HD (high dynamic) smoke sensor ranges from 0.002%/m to 10%/m. This is equivalent to the sensitivity spectrum of a laser based detector. In the extra large LVSC (large-volume smoke chamber), the sensor permanently analyses the airflow with a high power LED using tried and tested scattered light technology. It meticulously detects even the slightest increases in smoke concentration.

With its patented lint filter, it suppresses even the finest dust particles that would otherwise falsify the detection process. Thanks to its optimised aerodynamic measuring chamber, the smoke sensor is also immune to dust deposits. This means that there is little chance of false alarms.

Up to five alarm levels can be programmed within the sensitivity range of 0.002%/m to 10%/m. You can then rest assured that individual measures can be taken for each monitored zone. With dangers and hazards detected this precisely, any necessary alarm response is focused and extremely swift.

Securiton ASD – because sensitivity counts:

- Alarm sensitivity from 0.002%/m (measurement resolution < 0.001%/m)
- Scattered light technology with high power LED
- As sensitive as a laser – but with a longer service life and a greater temperature range
- Up to five alarm levels for environment-based detection
- Maximum protection against false alarms

Extremely durable – even in the toughest environments.

SEC-ASD-535 / 533 – perfect for large-scale applications.

The SEC-ASD-535 is the flagship model of the Securiton ASD detector range. It can monitor an area of up to 5760 square metres. Available as a single sensor and two sensor device, the detector analyses the airflow from one or two sampling pipes independently. The aspirating smoke detector thus reliably spots any deviation in the airflow and detects any breakages or blockages in the sampling pipes. Up to 300 metres of sampling pipe with a maximum of 120 sampling holes can be connected to each smoke sensor.
More than 400 Pa of aspirating under pressure generates the necessary power, which means the SEC-ASD-535 has one of the most powerful fans on the market.

Frosty conditions? The SEC-ASD-535 won't even sneeze. Hot conditions? No sweat – the SEC-ASD-535 carries on working without complaining. These robust aspirating smoke detectors can be deployed at tempe-ratures ranging between –30 °C and +60 °C – retaining their full functionality at all times. In deep freeze applications, the evaluation unit is installed directly in the deep freeze area and the sampling holes are heated automatically when needed to prevent them from freezing. Using ASD Config Software, you can carry out configuration and maintenance – having to personally access zones with extremely high or low temperatures is now a thing of the past. Further possibilities for accessing the aspirating smoke detector remotely are provided by RS-485 networking.

SEC-ASD-535 – perfect for very large monitoring areas:

- Applications: high bay and deep freeze warehouses, Ex zones, large data centres, historic buildings, large halls etc.
- Permissible temperature range: –30 °C to +60 °C
- Immune to disturbances such as dust, dirt, moisture and steam
- Reliable detection in difficult environments
- Protection against false alarms

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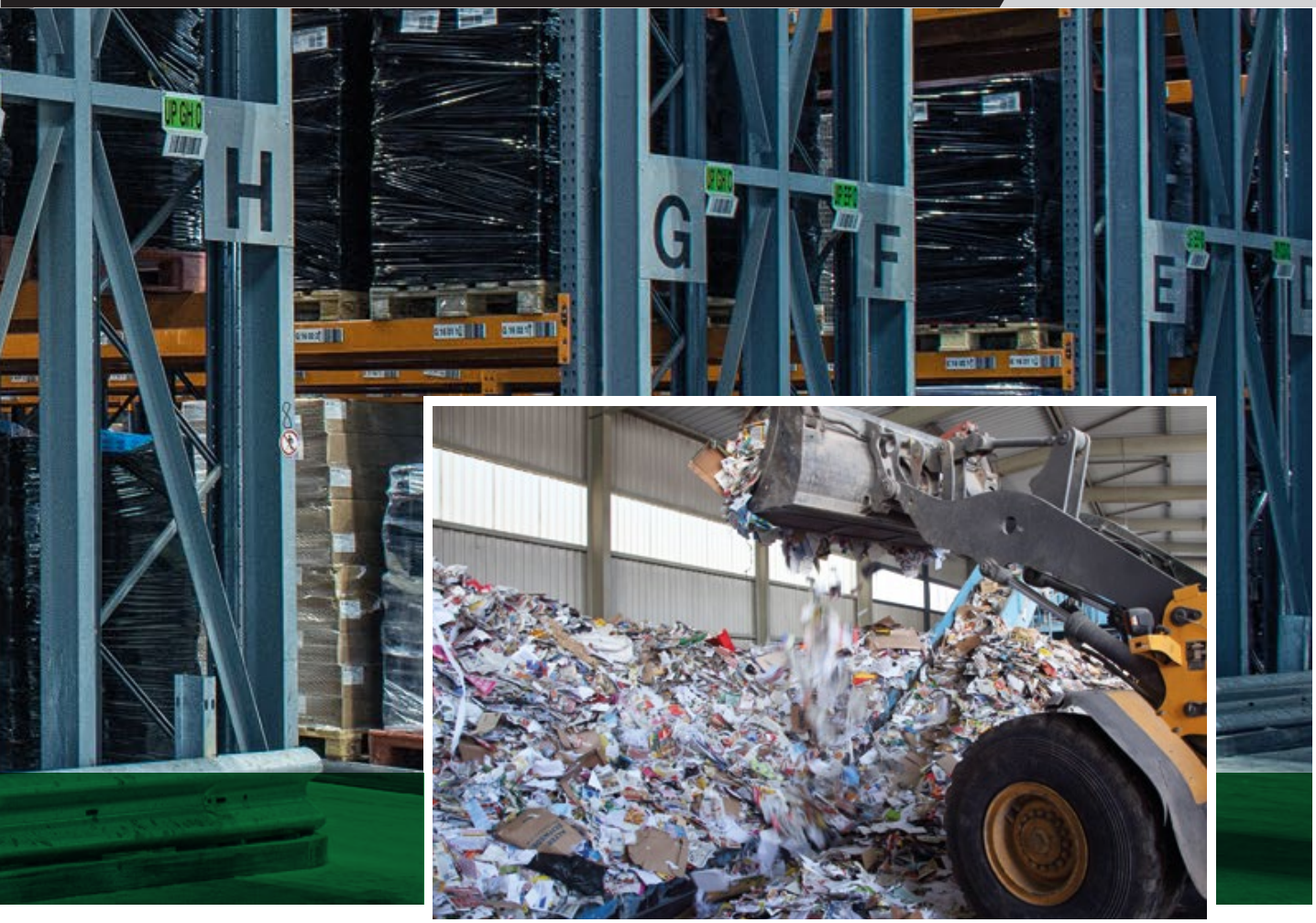

Extremely robust and discreet in operation.

The SEC-ASD-533 is a scaled down version of the SEC-ASD-535 with restricted system limits. Dusty, steamy or dirty conditions? It makes no difference to the SEC-ASD-535/533. The extensive range of accessories includes various dust filters, water retaining boxes and other tools. The Auto learning function allows for automatic adaptation of the sensitivity according to the ambient conditions, which means the SEC-ASD-535/533 operate with optimum sensitivity at all times while also being protected against false alarms. They are also immune to dust deposits thanks to their optimised aerodynamic measuring chamber. An automatic blow out device can be an option to clean (back flush) pipes periodically for harsh environments.

The choice of sampling pipe material is determined by the individual requirements on site. When it comes to the quality of the SEC-ASD-535/533, Securiton is uncompromising: the aspirating smoke detectors are designed for a very long service life.

Although the SEC-ASD-535/533 are equipped with a high performance fan, they are whisper quiet. In fact, they are among the quietest aspirating smoke detectors on the market. They stand out by virtue of their extremely low noise levels (34 dBA), making them compliant with ISO standard 11690-1 for the design of low noise work places containing machinery.

SEC-ASD-533 – perfect for large monitoring areas:

- Applications: elevator shafts, museums, collections of cultural artefacts etc.
- Permissible temperature range: –20 °C to +60 °C
- Maximum overall sampling pipe length: 200 m
- Approvals: VdS, UL, FM, ActivFire

Highest possible sensitivity for demanding applications.

SEC-ASD-532 – powerful and compact.

The SEC-ASD-532 is used for reliable monitoring of small and medium sized areas and premises. It has the similar technical specifications as the SEC-ASD-535, but with just one sampling pipe and a more compact fan. Anyone familiar with the SEC-ASD-535 will find added monitoring using the SEC-ASD-532 a breeze. Configuration and maintenance of the detector are made in the same simple way.

Aesthetically, the SEC-ASD-532 is very subtle and discreet – just like all devices in the Securiton ASD range. The installation is carried out with the highest possible level of adaptation to the surroundings in question. The sampling pipe can be laid out asymmetrically, which means it blends seamlessly into the structure of the building. his eliminates the need for long sampling pipes and thus reduces costs.

SEC-ASD-532 – for medium-sized premises:

- Applications: elevator shafts, prison cells, clean rooms, laboratories, IT racks, telecommunications facilities etc.
- Compact design
- Permissible temperature range: –20 °C to +60 °C
- Maximum overall sampling pipe length: 120 m
- Ethernet or RS-485 networking
- Approvals: VdS, UL, FM, ActivFire, CCCF

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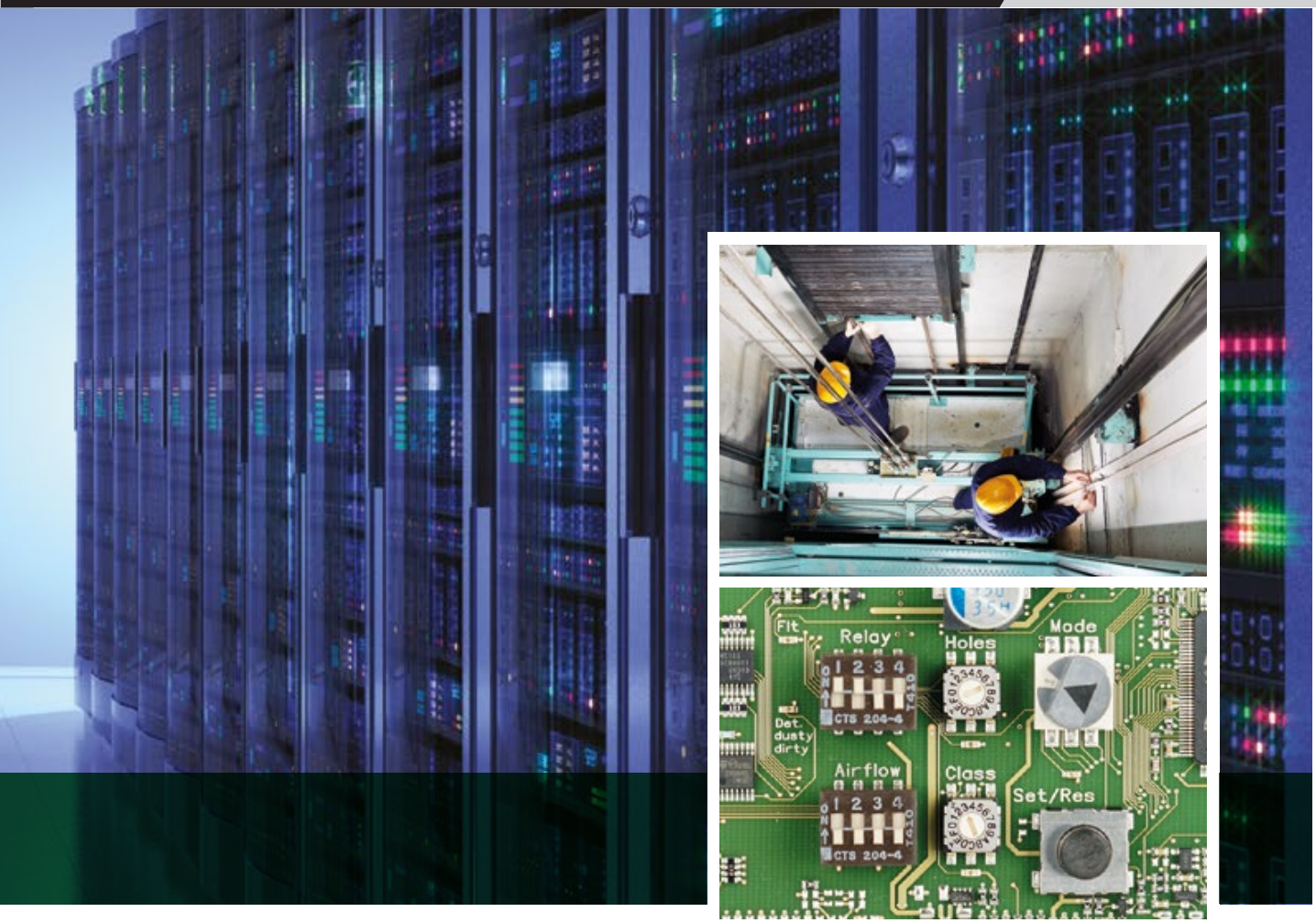

SEC-ASD-531 – small and simple.

The SEC-ASD-ASD 531 is small, yet extremely powerful. As with the two larger models in the Securiton ASD range, it is also equipped with the tried and tested HD detector with LVSC (large volume smoke chamber). Its outstanding sensitivity ensures high levels of safety, combined with an impressively long service life.
The SEC-ASD-531 ignores individual disruptive factors effectively thanks to its patented lint filter.

The SEC-ASD-531 is the perfect choice for anyone wanting to put a smaller system into operation quickly and easily without the need for extra training. Configuration is made directly on the device using BasiConfig in just three simple steps without the need for a PC.
Operation of the compact device is just as easy. With the SEC-ASD-531, you can monitor your rooms and premises reliably and precisely with a minimum of effort and exceptional cost efficiency.

SEC-ASD-531 – for small premises:

- Applications: elevator shafts, electric distribution cabinets, false ceilings, small telecommunications containers, clean rooms, ventilation ducts, IT racks etc.
- Compact design
- Permissible temperature range: –10 °C to +55 °C
- Maximum overall sampling pipe length: 75 m
- Approvals: VdS, UL, FM, ActivFire, CCCF

Project planning in simple and logical steps.

Efficient and optimised – complete control over complexity.

For complex installations, for example, asymmetrical sampling pipes are required, the ASD PipeFlow calculation software takes care of the layout. It lets you plan your system in simple and logical steps, offering maximum benefits while complying with the relevant compliant response grade. With its practical optimisation function, the ASD PipeFlow software always looks for the ideal balancing of the sampling pipe so that each sampling hole has the same sensitivity. Furthermore, all accessories for the sampling pipe are integrated in the software.

The Securiton ASD aspirating smoke detector is configured using the ASD Config software.

For application-specific adaptations, use the practical ASD Config software tool. Its extensive analysis functions and setting options provide you with valuable information for the safe, cost effective operation of your system. On simple systems, EasyConfig is there to offer optimal support directly on the device (without the need for a PC).

Securiton ASD – making what is complex simple:

- **ASD PipeFlow software for efficient planning**
- **VdS-approved software for optimised solutions**
- RS485 Networking option allows programming over network and **no physical access to the device required**
- **ASD Config software for complete device setup and analysis functions**
- **EasyConfig for simple commissioning directly on the device**

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The right equipment for any application.

Optional modules
- For long term data logging (analogue values and expansion of the event memory)
- For RS-485 networking
- Additional relay outputs (up to 10 items)

Various sampling pipes
- PVC, ABS, copper, stainless steel
- Flex hose (for laying in concrete and flexible installation)
- Capillary tubes (discreet sampling points in false ceilings)

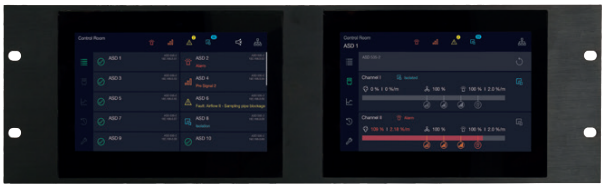
Application-specific sampling holes
- Suction clips of different diameters
- Ceiling duct for dropped ceilings
- Sampling funnel for property monitoring
- Sampling holes for laying in concrete

Aids for use in dirty or damp environments
- Various dust filters and dirt trap boxes
- Water retaining box
- Manual and automatic blow-out devices
- Cleaning kit
- Air cooler/heater

Accessories for Ex applications
- Flame arresters
- Auxiliary housing for additional protection

ASD Networking and Visualization

FidesNet makes it possible to connect multiple SecuriSmoke aspirating smoke detectors in a network while also enabling decentralised access via one or more FidesControl SEC-RCU-700 units. The performance scope includes RS-485 networking plus the visualisation and operation of all connected ASDs on the FidesControl RCUs linked in the network. Various other functions can be implemented in addition to visualisation and operation.



FidesNet

Fire Detection System Network

Networking of Securiton special fire detectors

Function
Using FidesNet, multiple ASDs are connected to each other via a serial RS-485 interface. The SEC-SIM-35 module is used as the serial interface module in the SecuriSmoke ASD. The FidesPort SEC-NCU-900 regulates communication in the network and integrates it into the superordinate system. In order to forward data from the field level, the FidesPort SEC-NCU-900 supports standard interfaces (such as Modbus TCP) for connecting to hierarchically superordinate systems such as a BMS building management system or Securiton's own visualisation system, Netsoft.

Networking
The ASDs on the RS-485 field bus can be connected with the FidesControl SEC-NCU-700 displays as required. All ASD-to-RCU combinations are possible here. Per RS-485 network, up to 100 ASDs and 50 RCUs can be connected to an SEC-NCU-900.

Applications
The FidesNet network solution is typically used wherever remote visualisation and operation are required. This may be due to difficult to access areas – such as high security areas at airports, in laboratories, IT environments, etc – where aspirating smoke detectors are installed but where a technician cannot always gain access (or where access is difficult). Another possible application is central visualisation and operation in a safety management system in order to monitor the entire installation from a single location. In addition to remote visualisation and operation, the connection to other systems via standardised interfaces is another important area of application. For example, forwarding the relevant measurement data to a measurement system at a data centre allows an operating company to gain an overview of the current system status.

Operation
Operation takes place via the 7-inch touch-screen on the FidesControl unit. All data from the networked special fire detectors is available on this display. Each detector in the network can be accessed via the FidesControl unit in order to call up detailed information, such as for pending maintenance work. The detectors can be isolated by channel and also reset in the event of errors or alarms.

- **The networked ASDs can be divided up between various FidesControl units as required (e.g. 1 ASD : 1 RCU; 1 ASD : 50 RCUs; 100 ASDs : 1 RCU; 100 ASDs : 50 RCUs, etc.). Up to 100 ASDs are possible on one RCU.**
- **The elegant 7-inch touchscreen display sets new standards when it comes to user experience.**
- **Various interfaces are available on the FidesPort, such as Modbus TCP. These can be used to integrate the data from the networked ASDs directly into other systems, such as building management systems.**
- **The FidesControl displays can be operated via Power over Ethernet (PoE).**
- **Individual customer-specifi c confi guration of the display measuring value units in relative (%) or absolute (%/m), default screen, acoustics, etc.**
- **Confi guration of display language (German, English, simplifi ed Chinese, etc.)**
- **Protection against unauthorised operation (isolation protected via PIN entry)**
- **Interface to the Netsoft visualisation system.**

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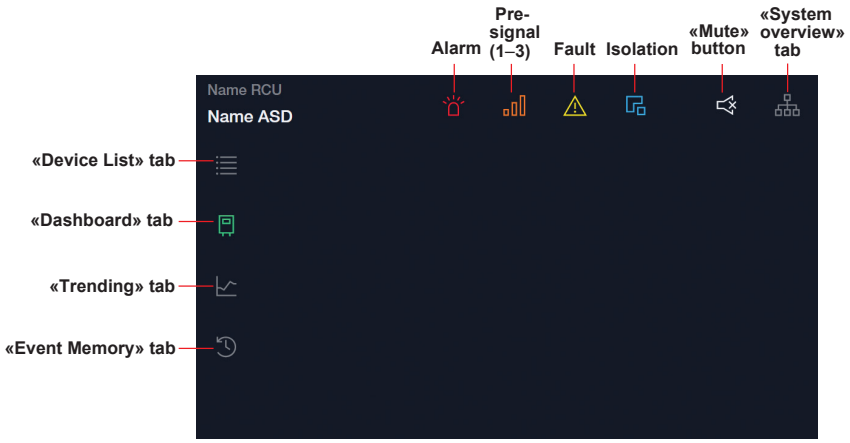
Overview of the visualisation interface
The graphic interface is divided up into the areas navigation, header and page content.

Navigation: for switching views.

Header: for the superordinate presentation of faults, pre-signals, alarms, isolations and name texts.

Page content: area of application for the various tabs.



FidesControl SEC-NCU-700

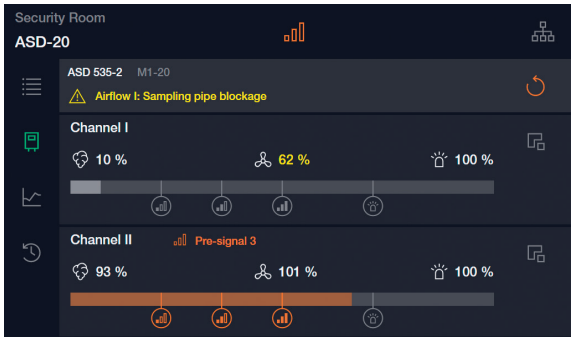
Graphic interface of the FidesControl SEC-NCU-700 with ASD-relevant views – important information at the right time
The simply designed graphic interface allows for intuitive interaction between the user and all connected network participants. This leads to optimal user guidance and the best possible user experience.

Device List

In the «Device List» view, all or a selection of the devices connected in a system with a FidesPort can be displayed depending on the customer's wishes. In this view, the status of the individual networked devices is highlighted in colour and is thus immediately apparent. If a device is selected, the user switches to the dashboard of the corresponding device.

Dashboard

The individual channels of the corresponding aspirating smoke detector are shown on the dashboard. In addition to the current measurement values (smoke and airfl ow in relative (%) or absolute (%/m), a level indicator also shows the current smoke value in relation to the pre-signal thresholds and alarm threshold. This leads to a quick and uncomplicated interpretation of the situation. In this view, the individual channels of
an ASD can be isolated or the entire device can be reset.

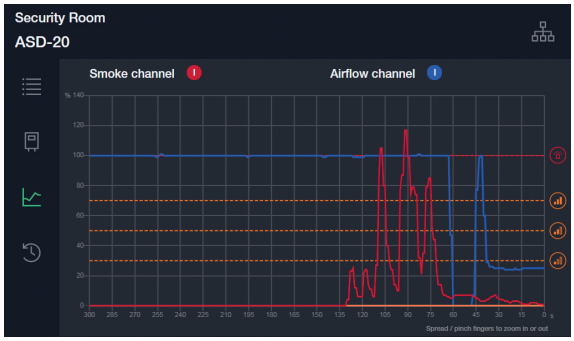


Trending

This view shows the measurement values of the airfl ow and smoke value as a line diagram. The trend lines show both real-time values and past values. As an additional aid, the curves are also shown in relation to the confi gured pre-signal and alarm thresholds.

Other views

- **Event memory, shows most recent events**
- **System view, information from the whole system**



System Comparison Chart

	SEC-ASD-535	SEC-ASD-533	SEC-ASD-532	SEC-ASD-531
Channels	1/2	1	1	1
Smoke sensor	High-sensitivity smoke sensor with high-power LED, LVSC smoke chamber and patented lint filter			
Monitoring area	5760 m^2	1920 m^2	1280 m^2	720 m^2
Pipe length	2 x 300m	200m	120m	75m
Class A	2 x 18	16	8	6
Class B	2 x 56	50	12	8
Class C	2x 120	50	16	12
Interfaces	Relays, USB, RS485, Inputs	Relays, USB, Inputs	Relays, Ethernet, RS485, Inputs	Relays, Inputs
Optional modules	4 slots for: RIM35, SIM35, MCM35	4 slots for: RIM35, MCM35	2 slots for: RIM36, SIM35	2 slots for: RIM36
Smoke level indicator	Optional (version -3 and -4)	No	Yes	No
Programming (PC tool)	ASD Config	ASD Config	ASD Config	Not available
Configuration	EasyConfig	EasyConfig	EasyConfig	BasiConfig
Calculation of sampling pipes	ASD PipeFlow	ASD PipeFlow	ASD PipeFlow	ASD PipeFlow

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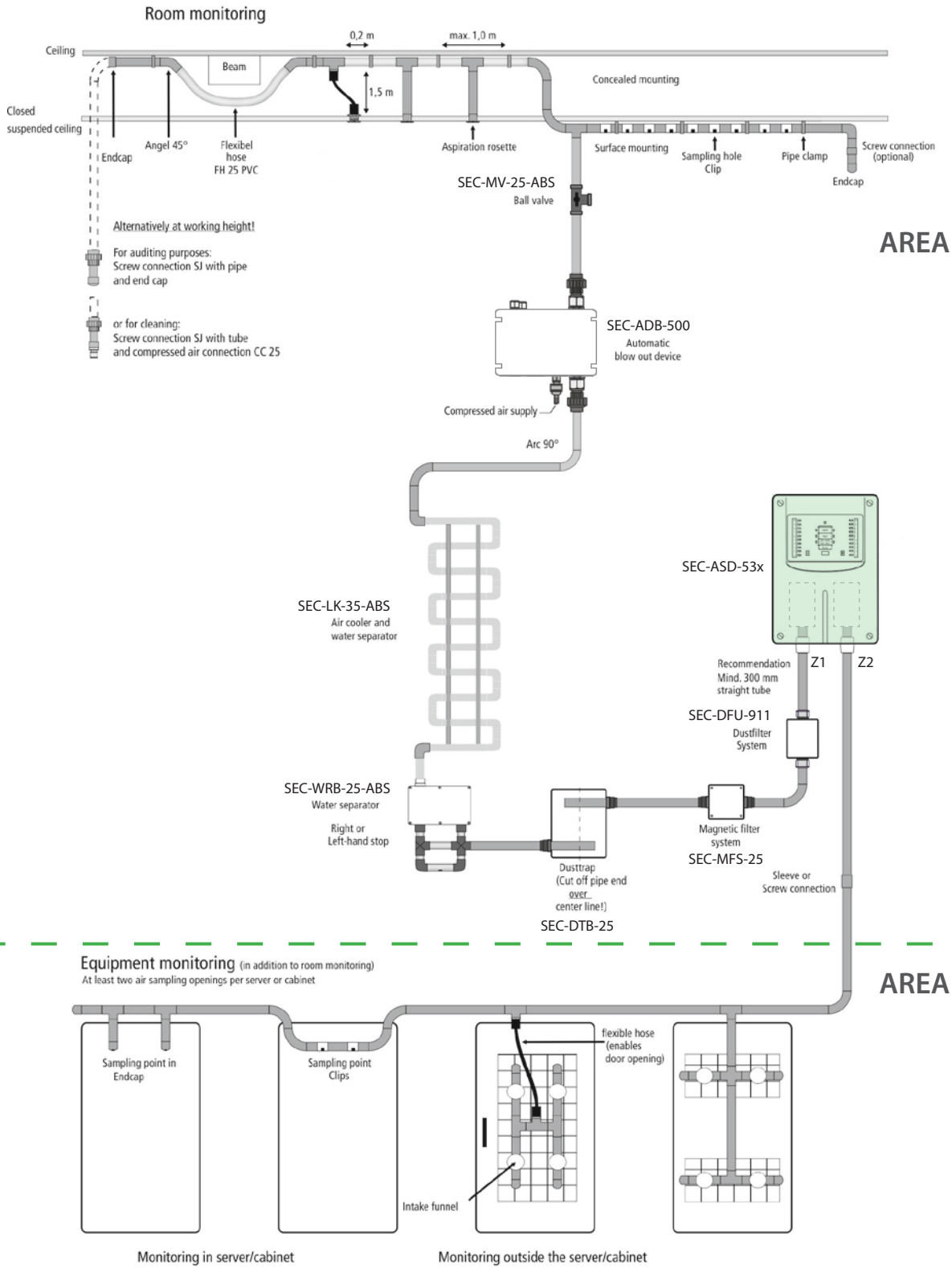
Overview compatibility

	SEC-ASD-531		SEC-ASD-532		SEC-ASD-533 / 535	
Project planning:	Technical Document	PipeFlow (Software)	Technical Document	PipeFlow (Software)	Technical Document	PipeFlow (Software)
Configuration:	BasiConfig (on board)		EasyConfig (on board) or ASD Config (Software)	ASD Config (Software)	EasyConfig (on board) or ASD Config (Software)	ASD Config (Software)
Filter						
SEC-DFU-911	✓		✓		✓	
Capillary tube						
Capilarry tube 10mm	✗		✗	✓	✓	
Heating material for LT applications						
All material	✗		✗		✓	
Detonation flame arrester for Ex applications						
SEC-DFA-25-1	✗		✗		✗	✓
SEC-DFA-25-2						
SEC-DFA-25-3						
Automatic blow out device						
SEC-ADB-500	✗	✓	✗	✓	✗	✓
Detector box						
SEC-REK-511	✗	✓	✓		✓	
Auxiliary module						
SEC-RIM-35	✗		✗		✓	
SEC-RIM-36	✓		✓		✗	
SEC-MCM-35	✗		✗		✓	
SEC-SIM-35	✗		✓		✗	✓

System Overview SEC-ASD-535, 1 or 2 Areas



The illustrated components are examples and can be combined within the scope of the technical possibilities.
The technical documentation, installation instructions and regional standards must be observed.
The planning and calculation software ASD Pipeflow is to be consulted for project engineering since the devices have different expansion stages.

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