High-precision aspirating smoke detectors for every requirement

SecuriRAS ASD 535, ASD 532 and ASD 531 aspirating smoke detectors
The complete model range for any application

The right device for every requirement

Aspirating smoke detectors from Patol are among the most precise and most reliable early warning systems against fires. The SecuriRAS 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 deepfreeze areas, Patol has the perfect fire protection solution for all safety requirements. SecuriRAS ASD detectors are available in three 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 the SecuriFire fire detection system and are extremely durable thanks to their robust design.

SecuriRAS ASD – because performance counts:

- Split-second, highly sensitive reaction to incipient fires
- Lightning-fast fire detection and alarm response
- Simple handling
- Three 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
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.

SecuriRAS 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
Frosty conditions? The SecuriRAS ASD 535 won’t even sneeze. Hot conditions? No sweat – the ASD 535 carries on working without complaining. These robust aspirating smoke detectors can be deployed at temperatures 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 the Config over Line function, you can carry out configuration and maintenance comfortably on the fire alarm control panel – 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.

**ASD 535 – perfect for large-scale applications**

The ASD 535 is the flagship model of the SecuriRAS 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 400 metres of sampling pipe with a maximum of 120 sampling holes can be connected to each smoke sensor. More than 400 Pa of aspirating underpressure generates the necessary power, which means the ASD 535 has one of the most powerful fans on the market.

**ASD 535 – perfect for 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
Extremely robust and discreet in operation

Dusty, steamy or dirty conditions? It makes no difference to the ASD 535. The extensive range of accessories includes various dust filters, water retaining boxes and other tools. The Autolearning function allows for automatic adaptation of the sensitivity according to the ambient conditions, which means the ASD 535 operates with optimum sensitivity at all times while also being protected against false alarms. It is also immune to dust deposits thanks to its optimised aerodynamic measuring chamber. It cleans its sampling pipes and holes itself using the automatic blow-out device. The choice of sampling pipe material is determined by the individual requirements on site.

When it comes to the quality of the ASD 535, Patol is uncompromising: the aspirating smoke detector is designed for a very long service life.

Although the ASD 535 is equipped with a high-performance fan, it is whisper-quiet. In fact, it’s one of the quietest aspirating smoke detectors on the market. It stands out by virtue of its extremely low noise levels (32 dBA), making it compliant with ISO standard 11690-1 for the design of low-noise workplaces containing machinery.

ASD 535 – immune to disturbances:

• 32 dBA: extremely low noise levels
• No soundproofing measures required
• Practically invisible installation
• Simple to integrate into existing architecture
• Approvals: VdS, DiBt, UL, FM, ActivFire, CCF
The SecuriRAS ASD 532 is used for reliable monitoring of small and medium-sized areas and premises. It has the same technical specifications as the ASD 535, but with just one sampling pipe and a more compact fan. Anyone familiar with the ASD 535 will find added monitoring using the ASD 532 a breeze. Configuration and maintenance of the detector are made in the same simple way.

Aesthetically, the ASD 532 is very subtle and discreet – just like all devices in the SecuriRAS ASD range. When installed in voids, the sampling pipes are completely invisible, while the flush-mounted sampling holes are often imperceptible. 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. This eliminates the need for long sampling pipes and thus reduces costs.

**ASD 532 – powerful and compact**

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**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 sampling pipe length: 120 m
- Ethernet or RS-485 networking
- Approvals: VdS, UL*, FM*
ASD 531 – small and simple

The ASD 531 is small, yet extremely powerful. As with the two larger models in the SecuriRAS 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 ASD 531 ignores individual disruptive factors effectively thanks to its patented lint filter.

The 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 ASD 531, you can monitor your rooms and premises reliably and precisely with a minimum of effort and exceptional cost efficiency.

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 sampling pipe length: 75 m
- Approvals: VdS, UL*, FM*
on the SecuriFire fire alarm control panel. The detectors communicate directly with the control panel via the SecuriLine eXtended addressable loop – including during commissioning and maintenance. This significantly reduces maintenance work – trips to the individual devices are no longer necessary as everything can now be carried out efficiently on the fire alarm control panel.

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).

For complex installations in which, 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 norm-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 SecuriRAS ASD aspirating smoke detector is configured using the ASD Config software or – for even more convenience – via the Config over Line function on the SecuriFire fire alarm control panel. The detectors communicate directly with the control panel via the SecuriLine eXtended addressable loop – including during commissioning and maintenance. This significantly reduces maintenance work – trips to the individual devices are no longer necessary as everything can now be carried out efficiently on the fire alarm control panel.

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Efficient and optimised – complete control over complexity

Project planning in simple and logical steps

SecuriRAS ASD – making what is complex simple:

- ASD PipeFlow software for efficient planning
- VdS-approved software for optimised solutions
- Config over Line for central configuration, commissioning and maintenance
- 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
Patol is raising the bar in a big way in terms of convenience and efficiency when it comes to managing its ASD special fire detectors: the new Config over Line function allows the devices to be addressed directly from the fire alarm control panel.

With technicians having to contend with large premises and scaffolding and ladders impeding work flows and production processes, the setting, commissioning and maintenance of SecuriRAS ASD aspirating smoke detectors has traditionally been accompanied by a great deal of extra effort. Technicians have had to physically connect their laptop to each detector in turn. This is now history: thanks to remote access via Config over Line, tasks can now be carried out on the fire alarm control panel.

Config over Line has massively enhanced both convenience and efficiency. Once the update has been carried out to the SecuriFire Studio application and the device software, the user has access to almost every function of the ASD Config and ADW Config tools for controlling the detectors remotely. Just as conveniently, the update requires no additional wiring. Data exchange between the special fire detectors and fire alarm control panel is achieved by means of the existing SecuriLine eXtended addressable loop.

Config over Line – the benefits:

- Efficient, comfortable and reliable configuration and maintenance of special fire detectors via SecuriLine
- Simple maintenance, even in installation locations that are difficult to access
- No additional costs: software update is all that is needed
- No additional wiring
- No more service interruptions or faults
- Leading global solution from Securiton
All items have VdS approval.

**Optional modules**
- For long-term data logging (analogue values and expansion of the event memory)
- Direct connection on the SecuriLine eXtended addressable loop
- For RS-485 networking
- Additional relay outputs (up to 10)

**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 personal protection

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1. PVC (standard application)
2. ABS (halogen-free)
3. Stainless steel (for the food industry)
4. Copper (high temperatures and Ex applications)
5. Various dust filters and dirt trap boxes
6. Water retaining box
7. Flame arresters
## Overview of SecuriRAS ASD aspirating smoke detectors

<table>
<thead>
<tr>
<th>Model</th>
<th>ASD 535</th>
<th>ASD 532</th>
<th>ASD 531</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Universal aspirating smoke detector with one or two sampling pipes for large monitoring areas</td>
<td>Universal aspirating smoke detector for medium-sized and small monitoring areas</td>
<td>Universal aspirating smoke detector for small monitoring areas and equipment monitoring</td>
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<tr>
<td>Channels</td>
<td>1/2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Smoke sensor</td>
<td>High-sensitivity smoke sensor with high-power LED, LVSC smoke chamber and patented lint filter</td>
<td></td>
<td></td>
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<tr>
<td>Monitoring area</td>
<td>5760 m²</td>
<td>1280 m²</td>
<td>720 m²</td>
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<tr>
<td>Direct integration in SecuriFire fire detection system</td>
<td>Yes, with XLM-35 module (alarm, pre-signal, faults, day/night sensitivity switching, reset etc.)</td>
<td></td>
<td></td>
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<tr>
<td>Smoke level indicator</td>
<td>Optional (version -3 and -4)</td>
<td>Series</td>
<td>No</td>
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<tr>
<td>Programming (PC tool)</td>
<td>ASD Config</td>
<td>ASD Config</td>
<td>Not available</td>
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<tr>
<td>Configuration</td>
<td>EasyConfig</td>
<td>EasyConfig</td>
<td>BasiConfig</td>
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<tr>
<td>Calculation of sampling pipes</td>
<td>ASD PipeFlow</td>
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<td>Single IT racks, small telecommunications containers, elevator shafts, clean rooms, false ceilings etc.</td>
</tr>
</tbody>
</table>

* in progress / planned