

The SecuriRAS ASD 535 aspirating smoke detector is the new generation of highly sensitive, active smoke detection systems. It offers application-specific sensitivity adjustment alongside pre-signalling and pollution analyses. The SecuriRAS ASD 535 detects even minuscule glowing and smouldering fires and can be deployed practically anywhere.

SecuriRAS ASD 535



Aspirating Smoke Detector

Design and function

The SecuriRAS ASD 535 consists of one or two independent sampling lines with sampling apertures, each with a highly sensitive smoke sensor. Air flow monitoring ensures that the sampling lines are constantly checked for pipe breakage and the sampling holes monitored for pollution. A high-performance ventilator sucks the air from the room or facility being monitored through the sampling line to the evaluating processor unit. There the air is continuously evaluated by the smoke sensors. The display and control panel of the evaluating processor unit indicate the smoke concentration of the sampled air and other alarm, fault and status messages. Any increase in the smoke concentration is detected very early. Three pre-signals and two main alarms can be programmed and signalled via potential-free relays or directly to the SecuriLine ring circuit.

There are four expansion slots for accommodating modular relay, interface and memory card prints.

Applications

The SecuriRAS ASD 535 is ideal for property and space surveillance thanks to its excellent response behaviour.

Typical applications include:

- Room surveillance
 - High-rack warehouses and distribution centres
 - Archive rooms
 - Intermediate ceilings and raised floors
 - Large halls
 - Museums, galleries, theatres, cinemas
 - Cultural artefact collections, historical buildings
- Airports
- Informatics and computer centres
- Telecommunication centres
- Laboratory and research centres
- Electronic measuring rooms
- Transformer rooms
- Clean rooms
- Refrigerated warehouses

- Property surveillance
 - Telecommunication facilities
 - High and low-voltage distribution cabinets
 - Display cases
 - IT installations
 - CNC control systems
- Invisible applications
 - Protection of cultural assets
 - Prison cells

Bi-directional integration

The SecuriRAS ASD 535 can be readily integrated in the SecuriPro and SecuriFire fire alarm systems with the optional SecuriLine SLM35 interface. The display and operation of, e.g. the day/night sensitivity controls are easy using the fire detection control unit.

Highly sensitive smoke sensor

The SSD 535 smoke sensor was specially developed for the SecuriRAS ASD 535 and is the result of extensive research. Use of a high-power LED combined with a large volume smoke chamber (LVSC) results in unparalleled, adjustable sensitivity with the lowest aerodynamic resistance and supreme resistance to pollution and soiling. This ensures a long service life.

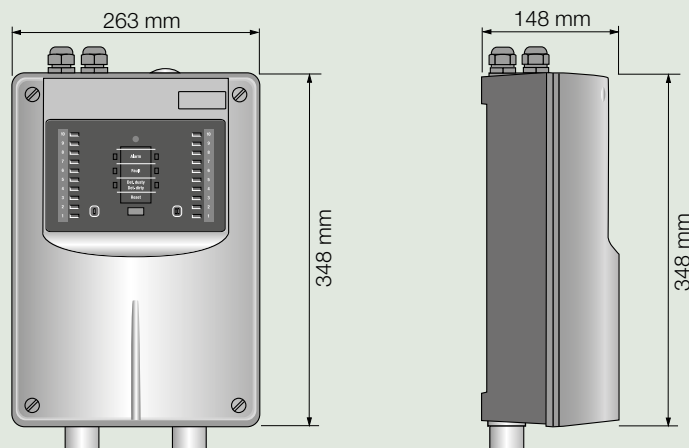
Easy to plan and commission

For straightforward, standard installations the SecuriRAS ASD 535 with EasyConfig offers fast, foolproof, computer-free commissioning. More complex installations are calculated using the ASD PipeFlow calculation software and configured with ASD Config, the commissioning and maintenance software. This allows for more cost effective asymmetrical pipe layouts. The optional MCM 35 memory module facilitates the comprehensive long-term logging of smoke levels directly to the SD memory card for analysis on the computer.

- The latest generation of universal aspirating smoke detectors
- 1 or 2 sampling lines with separate air flow monitoring
- EN 54-20, Class A, B, and C
- VdS certified calculation software: ASD PipeFlow enables efficient, asymmetrical pipe layout
- Resolution <0.001%/m
- Insensitive to pollutants thanks to particle suppression (patent pending)
- Auto-learning function
- High performance suction (> 400 Pa vacuum)
- Low noise level, compliant with ISO 11690-1
- 5 alarm levels (3 pre-alarms and 2 alarms)
- Refined smoke detection thanks to high-dynamic (HD) sensors

Range of accessories

An extensive range of accessories with VdS approval is available (25 mm and 3/4" sampling tube, sampling points, filters, water separators, explosion protection, etc.).



All specifications subject to correction. Securiton planning guidelines are binding. Specifications subject to change without notice. Delivery subject to availability.

Technical data

10.5–30 VDC/290 mA typical (at 24 VDC)	Permitted voltage range/Operating current, quiescent (typical)
0.02%/m–10%/m (0.00087–0.457 dB/m)	Alarm sensitivity
0.002–9%/m	Presignals 1, 2 and 3, programmable in 10% increments
3 relays/open collector	Interfaces (alarm, fault, programmable), service interface: USB
4	Number of expansion slots (SLM/XLM 35, MCM 35, SIM 35 and 2× RIM 35)
30 VDC/1 A	Relay contact load
EN 54-20, Class A, B and C	Standards
VdS G 208154, 0786-CPD-20600, FM, CNAL	Approvals
Ambient operating temperature	–30 °C to +60 °C
IP 54	ICE 529 protection class (achieved without limitations)
263 × 397 × 146 mm	Housing dimensions (W × H, with entries × D)
Light grey RAL 2807005, Charcoal RAL 3002005	Housing colour
ABS blend, UL 94-V0/Approx. 3850 g	Housing material/Weight
Display and control	Standard: 1 LED (green) POWER, 1 or 2 LEDs (yellow) Fault, 1 or 2 LEDs (yellow) Pollution, 1 reset button Deluxe design: supplementary 10 or 20 LEDs (yellow) for smoke level display
Max. 430 events, with MCM 35	Standard: Event data memory/analogue value logging up to 1 year
4 × M20, 1 × M25	Cable entries
Radial, 65,000 hours (at 40 °C)	Ventilator, service life (5 speeds)
> 400 Pa (performance level 5)	Suction pressure
43 dBA (ventilator level 3, standard)	Suction noise (complies with ISO 11690-1: Acoustics – Recommended practice for the design of low-noise workplaces containing machinery)
32 dBA (ventilator level 1)	
System criteria tested to EN 54-20	Max. 2 × 240 m (Easy Config), max. 2 × 300 m (ASD PipeFlow), max. 2 × 120 sampling apertures
System criteria without standard conformity	Max. 2 × 400 m (ASD PipeFlow), max. 2 × 120 sampling apertures (ASD PipeFlow)

Aspirating smoke detector product line

ASD 535-1	For one SSD 535 sampling line/smoke sensor
ASD 535-2	For two SSD 535 sampling lines/smoke sensors
ASD 535-3	For one sampling line/smoke sensor and smoke level display
ASD 535-4	For two sampling lines/smoke sensors and smoke level display
SSD 535-1	Smoke sensor 0.5–10%/m alarm sensitivity (0.0217 dB/m)
SSD 535-2	Smoke sensor 0.1–10%/m alarm sensitivity (0.0043 dB/m)
SSD 535-3	Smoke sensor 0.02–10%/m alarm sensitivity (0.00087 dB/m)
SLM/XLM 35	Optional SecuriLine ring circuit module
MCM 35	Optional SD memory card module connection, with card
RIM 35	Optional relay print module with 5 relays
ASD PipeFlow	Software for calculating sampling pipe networks
ASD Config	PC software for commissioning and maintenance
SIM 35/SMM 35	RS 485 networking module/RS 485 master module