AirSCREEN® ASD 535.

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S E C O N E T

Error-free under the most difficult conditions.
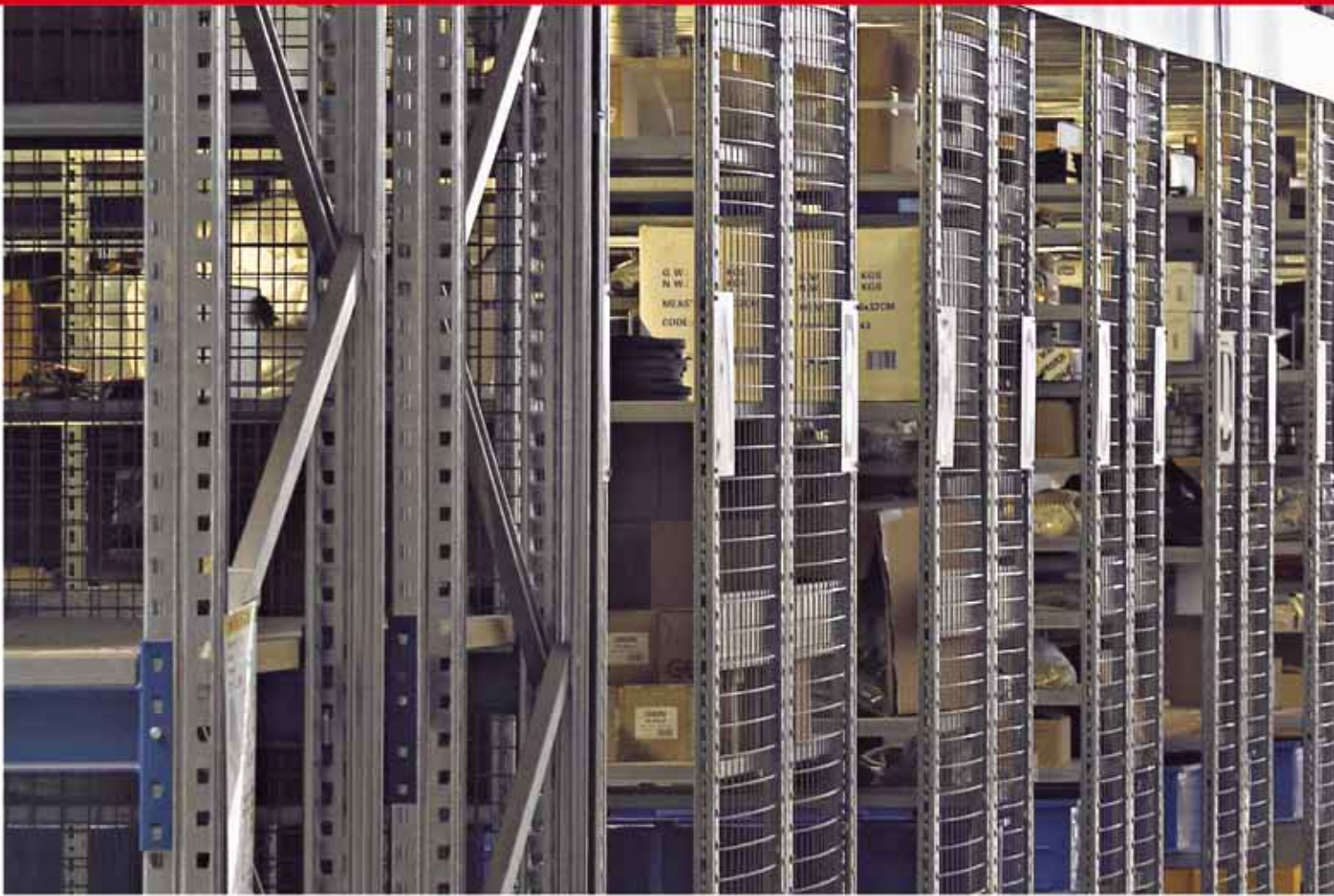
The specialist for special operations.
The AirSCREEN perfects preventive fire safety even in extreme conditions. It can be deployed wherever a particularly high level of performance is required. Where accessibility is restricted – such as in high rooms and warehouses, shafts and cavity ceilings, laboratories and clean rooms, the AirSCREEN is also the right

solution for monitoring switch cabinets, EDS devices and server rooms. It fulfils aesthetic demands, as it can be discreetly fitted and can therefore also be used for the early detection of fires in museums and exhibition spaces or in buildings of cultural importance. And naturally it is also suitable for ensuring safety of hospitals and care homes for the elderly.

For businesses where there is a particularly large influence from interference caused as a result of operating conditions, the AirSCREEN offers an incomparable level of quality. AirSCREEN performs best, when there are fluctuating temperatures, high humidity, a heightened level of dust and steam or similar parameters that affect normal systems in their ability to detect. The AirSCREEN continuously sucks air from the areas being monitored into the evaluation unit using a network of pipes. This sensor is equipped with High Dynamic technology and therefore tests the air for the presence of smoke particles to a hitherto unreached level of precision. The particles are detected and evaluated. In the event of a fire, the AirSCREEN sends an alarm message to the fire alarm control panel, and the emergency services are notified, and all other devices that need to be controlled are activated.

AirSCREEN®

Adjustable sensitivity.

In an emergency, reliable detection and clear alarm procedures count to safe human lives and property from a fire. An efficient early warning system ensures that it never reaches that point. The AirSCREEN offers a perfect level of fire detection and promotes preventive fire safety to a technically hitherto unattained level. The specially developed High Dynamic Sensor SSD 535 constantly receives samples from the surrounding air and tests them for the presence of smoke particles, with even the smallest smouldering fires being detected quickly and reliably. The spectrum for measuring sensitivity can be individually set.

The detector is also able to detect the existence of smoke aerosols which humans can barely recognise, i.e. in the settable range of 0.002 to 10 percent smoke diffusion per metre.

More than conforming to standards.

The AirSCREEN surpasses the requirement set out by the European system of standards for all its features, tools and accessories. The system has been approved by the VdS pursuant to European standard EN 54-20 for classes A (highly sensitive), B (sensitive) and C (standard). This confirms that the name AirSCREEN stands for the highest performance in the early detection of fires.

Adjusts optimally to every surrounding.

Quickly in service.

What is the use of the most modern technology, if the commissioning and maintenance of the system is proven to be difficult and time-consuming? For standard uses, configuration of the AirSCREEN is simple and uncomplicated, using the preset Easy Config values. Using the ASD PipeFlow pipe calculation software it is possible to allow the system to be configured simply, even when the starting conditions are more complex and individually tailored pipe networks can be used. Consequently the possibilities for deployment are practically unlimited. As standard, an internal memory is available for logging all events. The MCM 35 memory card module can be integrated optionally, which saves logs for a long period of time onto an SD card. This makes it possible to evaluate the data on a PC quickly and easily.

The AutoLearn Function – the test run.

By using HD technology the AirSCREEN offers a double level of precision in detection to ensure the perfect detection of smoke. The detection sensitivity level of the smoke aspirating system can be freely set. In trial operation a test run of the system is carried out under the prevailing environmental conditions – then the necessary settings are made for the system, in order to ensure that the alarm process occurs at the right time. Three pre-alarm thresholds and a main alarm threshold can be set – in the ranges of between 0.002 % and 10 %/m smoke diffusion. This allows an alarm to be raised even when the smoke is practically
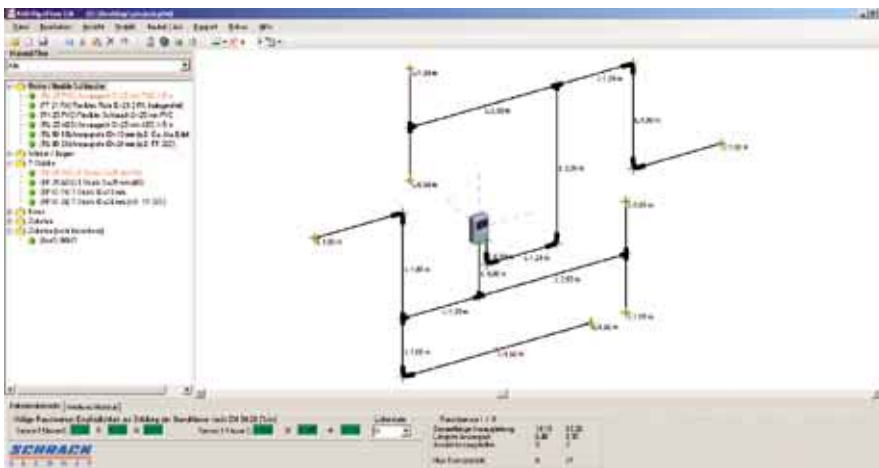
invisible. However, the system does not only monitor its surroundings registering all changes, but it also checks itself on a permanent basis. In a learning phase after installation, the so-called AutoLearn function carries out a type of test run. In the test run, the background level is discovered, in order to find the optimal setting for the sensitivity of the AirSCREEN for its highly sensitive duty. Ongoing scans of the environment ensure that a dynamic temperature and contamination compensation is formed. The AirSCREEN is therefore able to register a change in ambient conditions at any time, is able to adapt perfectly according to these, and thereby ensures the highest level of quality in preventive fire safety thanks to its precision.

The AirSCREEN is connected in its entire scope to the fire detector system. All relevant information is therefore available at the fire alarm control panel and can be evaluated and processed further there.
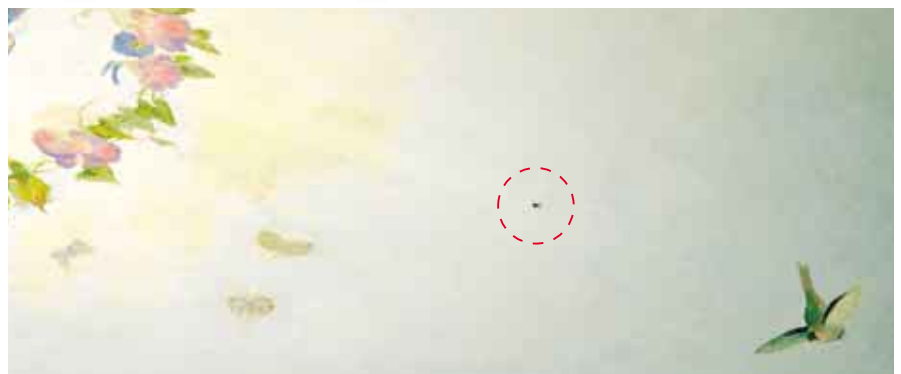
# Revolutionary technology for greater security.
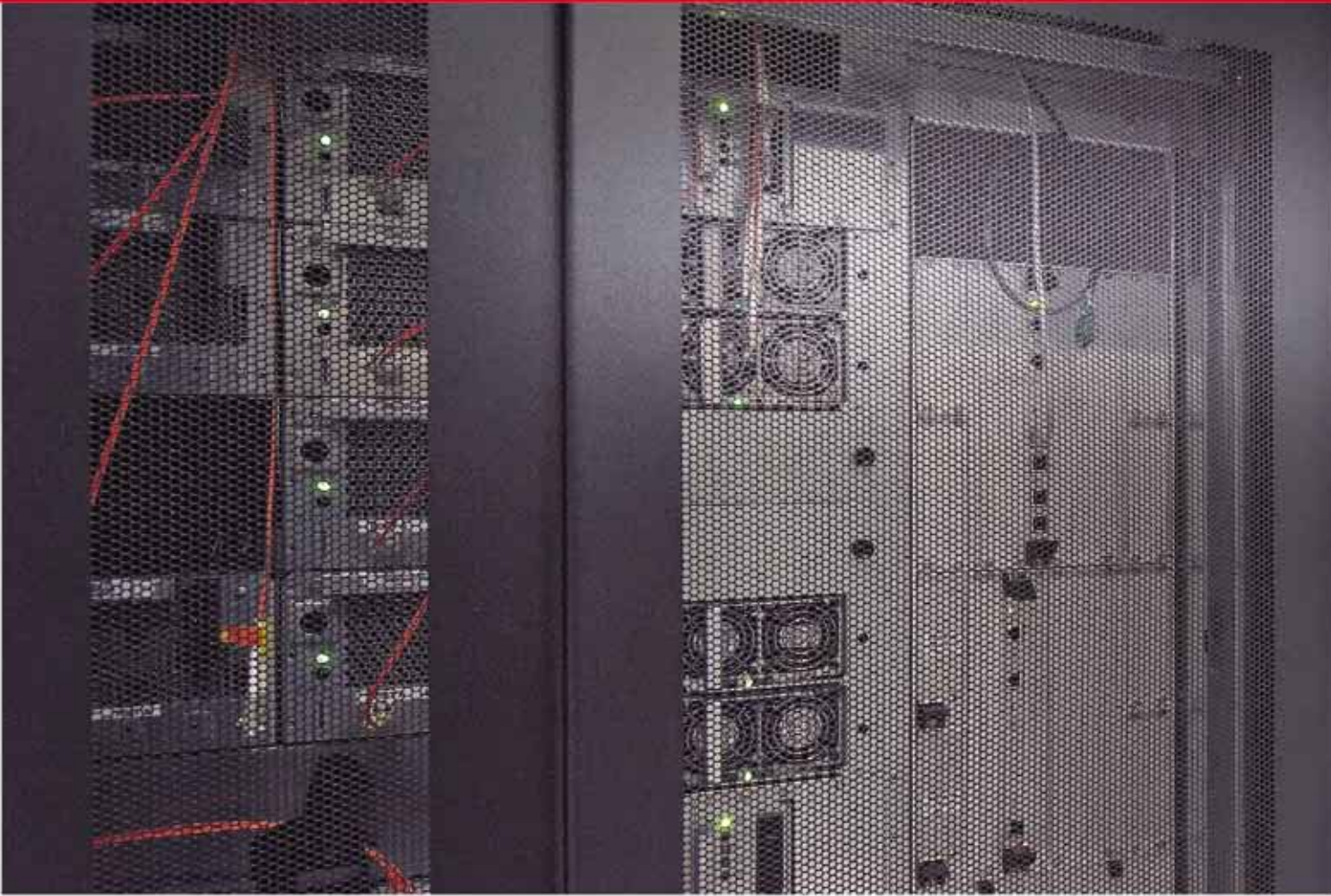
Precise monitoring.
The AirSCREEN goes much further than traditional smoke aspirating systems. As a result of the system's high performance as an aspirating system, it is possible to install a more comprehensive pipe network system than had hitherto been possible. This allows substantially larger buildings to be monitored than before.

Using one or, if necessary, two aspirating lines, the air flows into the large measuring chamber – the Large Volume Smoke Chamber (LVSC). Here the ultra-sensitive HD sensor performs its main function, analysing the current of air, around the clock and without breaks. In the event of there being a concentration of smoke or possible disruptive factors,

which differ from the normal state, a precise evaluation is carried out and the results transmitted to the fire alarm control panel. Costly deceptive alarms are thereby as good as eliminated, since the sensitivity of the unit can be adapted to suit the individual requirements of the building to be monitored, as can the number of pre-alarms and main alarms.
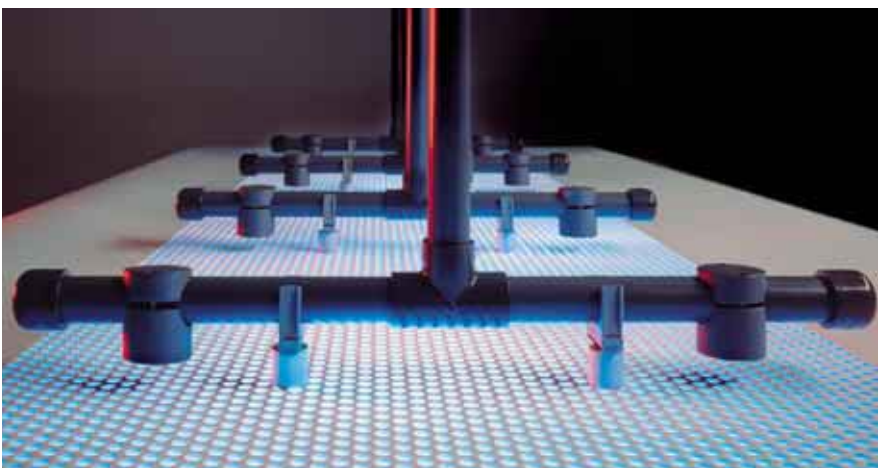
Two in one – greater performance, more possibilities.
The AirSCREEN has an ability to perform that is unmatched. It surpasses traditional limits, since it is able to unite two independent systems in one. With two separate aspirating lines, with up to 48 aspirating apertures, it is possible to monitor very large areas. There is of course separate airflow monitoring for each of these aspirating lines. Each of the pipe systems is monitored specially for pipe breakage or blockage of aspirating apertures.
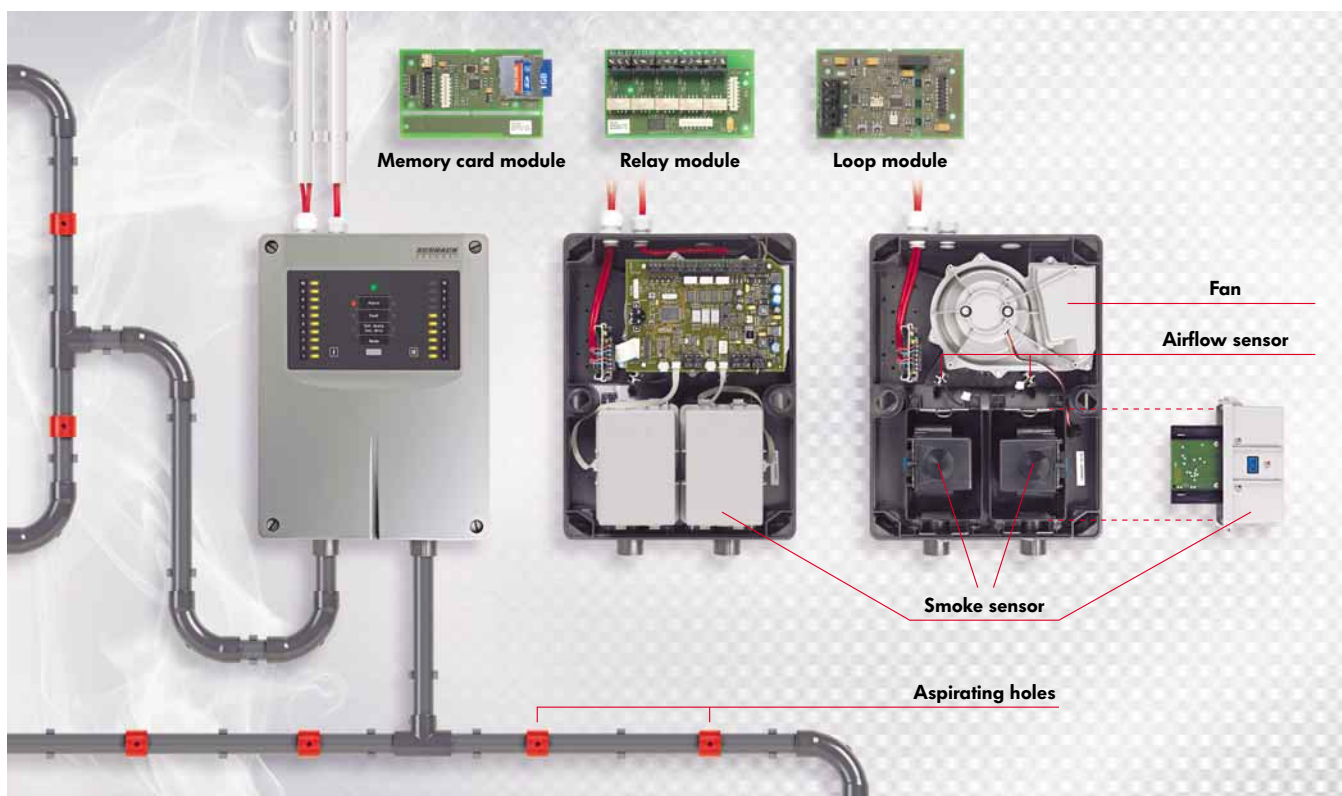
AirSCREEN®
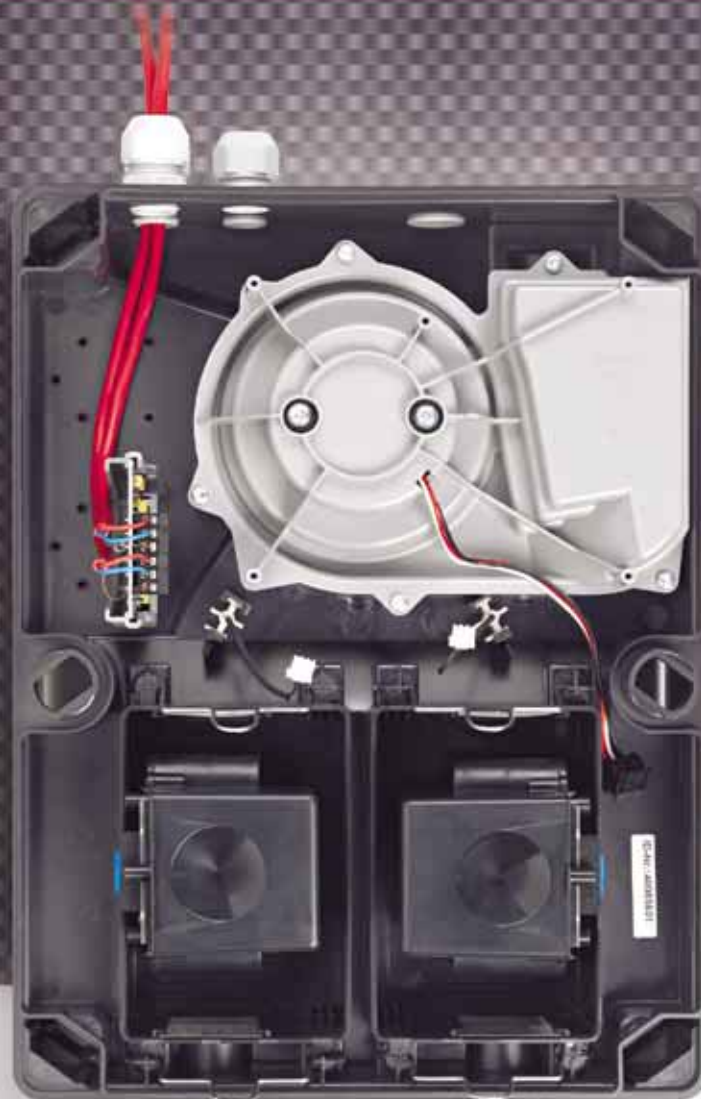
Detailed and constant measuring.

The AirSCREEN constantly sucks in air from the room to be protected into the SSD535 smoke sensor using a high performance fan and the airflow is constantly monitored and evaluated in the SSD535's measuring chamber. The size and construction of this measuring chamber have been aerodynamically optimised in such a way that system stability and precision of detection is able to handle far higher demands than traditional systems. The system does not only detect changes in smoke concentration, but also detects damage sustained by the pipe system. Thanks to its high sensitivity, the AirSCREEN is able to even detect the smallest non-visible smouldering fires. The Large Volume Smoke Chamber (LVSC) is fitted with a large integrated scattered light chamber. It is particularly stable and offers optimal response behaviour for light, dark, small and large smoke particles. In order to leave nothing to chance, every particle is measured twice! A special patented electronic particle filter ensures that particles that do not belong to the smoke are filtered out, which can otherwise lead to blurring of the measuring process. This filtering and the associated resistance against contamination ensure that the system has a long lifetime and high durability.

AirSCREEN® ASD 535.

Memory card module   Relay module   Loop module

Fan

Airflow sensor

Smoke sensor

Aspirating holes

FIRE ALARM

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