

MULTI-CHANNEL ASPIRATION SMOKE DETECTOR



MODULASER®

MINILASER













10
9
8
7
6
5
4
3
2
1



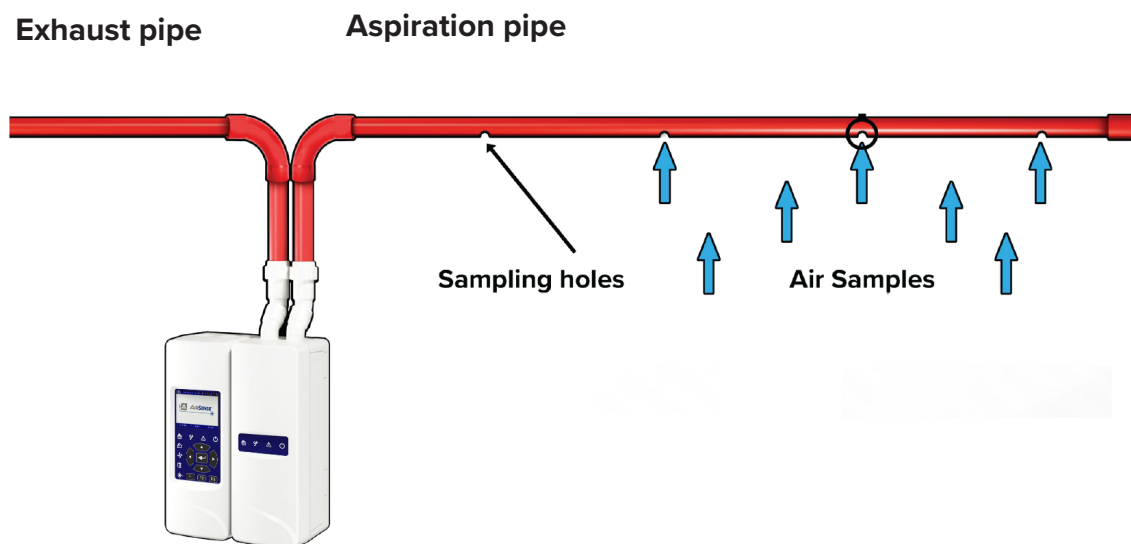
MINILASER



MODULASER®

MULTI-CHANNEL ASPIRATION SMOKE DETECTOR

In critical environments, point-type detectors do not always detect a fire early enough to prevent serious damage. These environments require a different solution, such as aspirating smoke detectors. Aspirating smoke detectors are extremely sensitive to smoke and can distinguish it from dust. Furthermore, because air is actively drawn into the detector, it can detect smoke much earlier than point-type detectors, even in the initial stages of combustion. As a result, it overcomes the challenges associated with stratification and humidity. They are also ideal for correctional facilities, where vandalism can be a problem. We offer a leading range of aspirating detectors, equipped with unique features that enable early and reliable fire detection.





What do our solutions offer?

Aspirating Smoke Detection (ASD) samples air from a protected area through a pipe network. The air is analyzed within the detector to identify the presence of smoke. If smoke is detected, alarms are activated.

Historically, ASD has been used to provide early fire warning in controlled environments. The ClassiFire® technology integrated into our detectors extends its application range significantly.

Unlike traditional point detection, air sampling points do not require electrical devices, power supply, wiring, or junction boxes. In fact, maintenance and testing only need to be carried out at the detector and display modules, as well as at the furthest sampling point from the detector module.

Additionally, MiniLaser and ModuLaser detectors can be installed in accessible locations, regardless of how difficult it is to reach the sampling points. This allows maintenance and electrical connections to be performed in a safe and convenient area, away from the protected space.

Our MiniLaser and ModuLaser solutions are an excellent choice where point detection and infrared beam detection are challenging. However, their application is not limited to these scenarios and extends to a much wider range of environments:

- High airflow environments
- Harsh conditions (very cold, very hot, humid, dusty, or high RF interference)
- Where detection must be concealed for aesthetic or security reasons
- Areas subject to smoke stratification
- Locations where maintenance access is difficult or unsafe
- Where mission-critical detection is required for suppression systems

Discreet detection: hidden in plain sight

In many cases, the risk of tampering can be significantly reduced by minimizing the visibility of smoke detection equipment within the protected area.

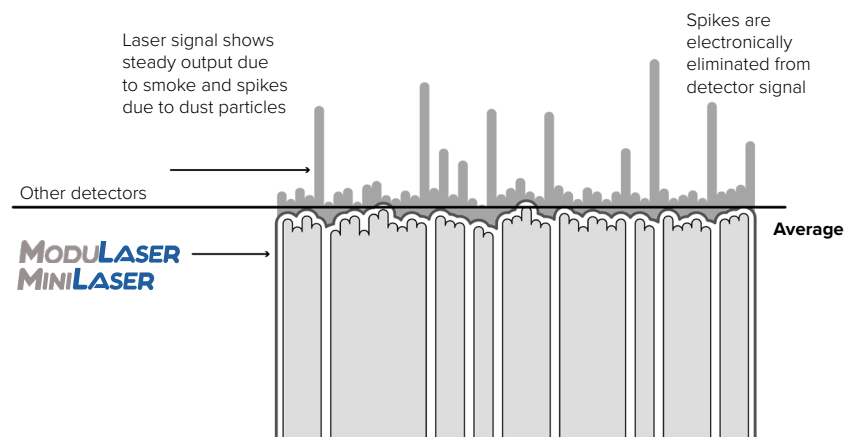
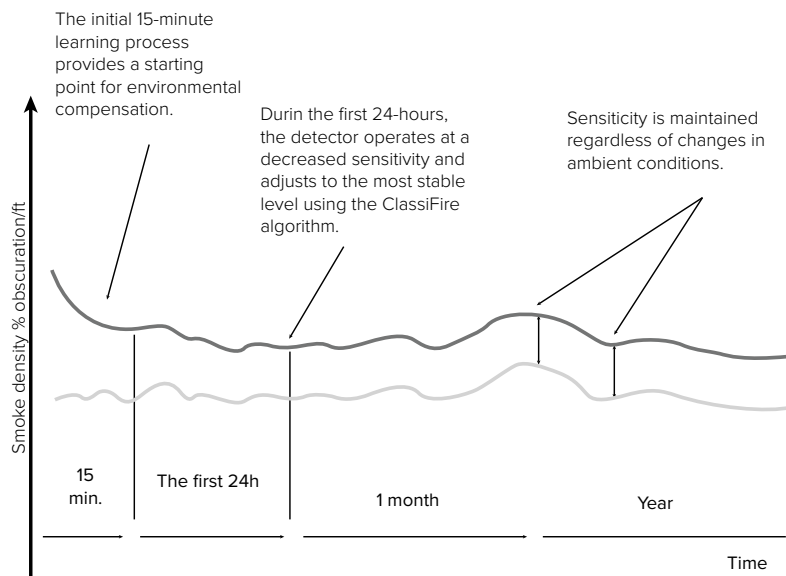


Why it is the right choice

Our MiniLaser and ModuLaser solutions incorporate technology that extends their range of applications far beyond those typically associated with aspirating smoke detection.

Thanks to their advanced detection technology, they overcome the hypersensitivity issues commonly associated with ASD systems, delivering a reliable, general-purpose smoke detection solution with a high resistance to nuisance alarms.

- Environmental compensation opens the door to projects that would be impractical for other detectors. ModuLaser's auto-calibration and adaptive alarm thresholds overcome the challenges of applications where air treatment is tightly controlled. This makes it ideal for public commercial areas as well as industrial environments with high levels of dust and contaminants. In fact, ModuLaser technology remains highly sensitive to early fire indicators while being reliable enough to virtually eliminate nuisance alarms.
- Waste Gate technology is a powerful ModuLaser advantage that significantly extends the lifespan of the detector's particle filters. This unique aspiration technique diverts most of the particles that would normally load the detector filters. As a result, ModuLaser offers longer service life and greater capacity per maintenance cycle than any other detector of its kind on the market today.
- Laser dust discrimination is a sophisticated algorithm that identifies and removes spikes in obscuration readings caused by particles in the airflow. This enables ModuLaser detectors to achieve higher sensitivity levels without compromising reliability an ongoing trade-off in other air sampling detection products.



How do they stand out and where can they be used?

Easy installation

The docking station design enables simple interconnection of detectors in a modular configuration. Electronic components can be easily removed to prevent damage during installation.

Easy pipe connection

The quick-fit pipe adapter system locks securely in place while providing ample space for easy pipe connection and removal within each detector module.

User-friendly interface

The colour display, supported by navigation and function buttons, provides an intuitive, clear, and efficient user interface.

Detailed status and diagnostic information is presented in both text and graphical formats.

Flexible and secure pipe connection

The patented quick-fit pipe adapter is designed to simplify connection and removal of pipes from the detector module. Engineered to seal tightly around the pipe using a threaded collar, the adapter easily accommodates both 3/4" and 25 mm pipe sizes.

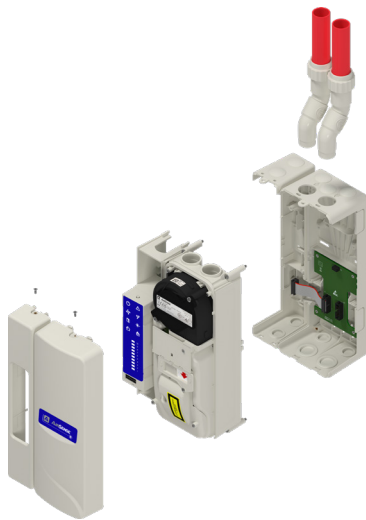
Its two-part flexible construction allows installers to rotate the connector to compensate for minor pipe misalignments.

Alarm levels & certification

The detector features four adjustable alarm levels, which can be configured to meet specific application requirements. It supports Class A, B, and C applications, with EN approvals, and for UL listings it is suitable for open area protection and special applications.

This allows a single SKU to cover multiple application types, reducing both system complexity and inventory costs.

Why is just adds up



Ready when you are

The innovative backplane docking stations of our MiniLaser and ModuLaser solutions securely snap into place using a simple clip mechanism, which can be repositioned repeatedly to suit the installer's needs. The docking stations accommodate all field wiring, allowing sensitive components to remain protected during the initial installation phase.

Once interconnected, the clips act as cable guides, enabling a clean and straightforward interconnection. Cabling can enter the docking station from the top, bottom, or rear. The docking stations can be wall-mounted using screws or simply clipped onto a DIN rail using the integrated mounting clips.

The detectors are then easily secured in place, quickly fixed and oriented to allow pipe entry from either the top or bottom.

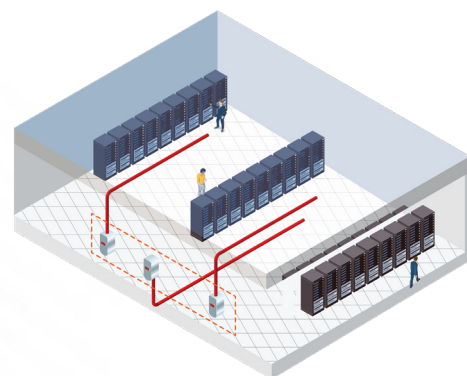


Install it your way

Thanks to their advanced bidirectional mounting design, our solutions provide a clean, efficient, and clutter-free installation. Detectors slide into the docking stations from the front and can be configured for top or bottom pipe entry.

No jumpers or adjustments are required—simply slide the detector module into the docking station, orient it as needed, and attach the front cover.

For ModuLaser, the device automatically adjusts the display orientation to match the detector position. Final system configuration can be carried out via the dedicated display module or through a PC connection. For enhanced security, four different access levels are supported.



A VIP pass to any location.

Equipment rooms housing high-voltage machinery or sensitive IT infrastructure are often secure, restricted-access areas, making smoke detection maintenance challenging.

ModuLaser detector modules can be installed outside the protected area, overcoming accessibility constraints and enabling safe and convenient maintenance.

* Availability may vary subject to local approval



*Uniquely Modular,
Endlessly Flexible.*



MODULASER®

What is ModuLaser ?

ModuLaser is a scalable aspirating smoke detection solution providing flexibility in design and installation. Compartmentalised detection and display units result in a unique modular design that provides detection of multiple zones while overcoming many of the issues that can exist with non-modular systems.

A ModuLaser system consists of two basic module types :

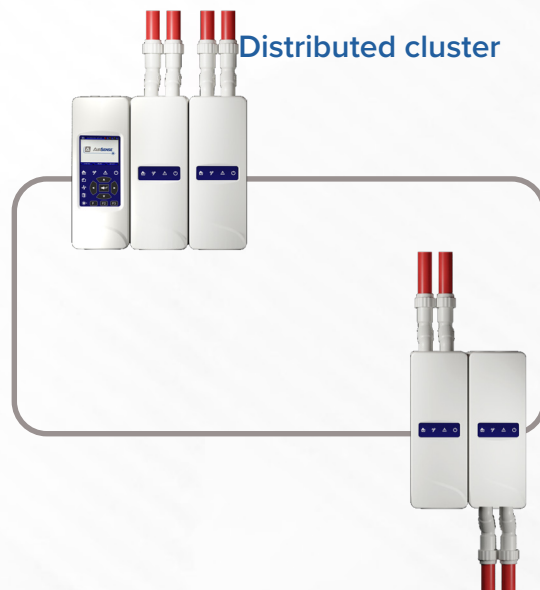
- **Display module** – provides control and monitoring of detector modules
 - **Detector module** – draws air from the risk area and samples it for smoke particulate
 - Up to eight detector modules can be controlled and monitored via one display module with each detector module capable of serving up to 250m/820ft. of combined sampling pipe.
 - Display and detector module combinations are known as a cluster with devices in the cluster communicating via RS485. This unique modular design allows for clusters to be non- distributed or distributed giving significant design advantages such as maximising pipework coverage and reduced transport times.
- ModuLaser is not just about efficient and flexible system design it also excels with simple user controls, detailed display information, connectivity and easy maintenance. From the designer through to the end user ModuLaser provides benefits for everyone.
 - ModuLaser embraces exciting new design aspects integrated with proven features and technologies, such as ClassiFire and waste gate technology.
 - Whether it's providing early warning detection within a clean room environment or providing a problem solving solution for harsh or unusual applications, ModuLaser excels to provide a robust and reliable aspirating smoke detection solution.



Non-distributed cluster



Distributed cluster



Typical Applications

Aircraft hangars	Heritage buildings
Airport terminals	High-end residential
Anti-smoking enforcement	Hospitals
Atria	Hotel lobbies
Cable tunnels	Metro tunnels
Cleanrooms	Museums Paper mills
Coal conveyers	Record storage facilities
Computer cabinets	Recycling centers
Computer rooms	Semiconductor fabrication
Corrections facilities	Telecommunications facilities
Data processing centers	Textile areas
Engine rooms	obacco plants
Escalators	Warehouses
Flour mills	Distribution centers
Food preparation areas	Ceiling voids, raised floors
Freezer warehouses	



Things are looking up. In locations with high ceilings, accessibility plagues maintenance and service efforts, while stratification poses a serious risk to life safety. ModuLaser overcomes these difficulties because devices are installed at ground level, while sampling ports remain high above in optimum sensing locations.

Added value

More efficient, less costly...

With the unique modular design of the ModuLaser, you buy exactly what you need for a particular installation. Traditional multi-channel aspirating smoke detectors offer a fixed amount of zones or channels, which in many installations result in a detector with more zones than is required by the installation. This in turn may result in a higher cost price. With the ModuLaser this is no longer the case as the detection modules are sold separately, and up to eight detection modules can be controlled and monitored by one display module. On top of this there is no need for the detection modules to have similar sampling pipe layouts. Individual modules provide significant advantages over non-modular systems,

- No need for balanced pipework across zones
- Unaffected by zones of differing pressures or airflow
- Each zone configured completely independently for sensitivity, alarm thresholds etc.
- No delay in the detection of smoke from scanning between zones.
- No cross contamination of smoke between zones.
- **Freezer burn.** Cold storage facilities produce environments that would damage the circuitry and clog the smoke chambers of spot detectors. ModuLaser overcomes this problem because the sampling points are not susceptible to cold and humidity, and the detector can be located outside the freezer area where conditions could harm its electronic components.



Approvals and availability



EN54-20

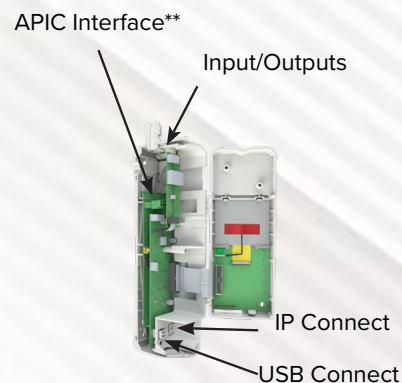


Why is just adds up

Make the right connections

ModuLaser communicates as readily as it installs. Standard USB and IP interfaces break through connectivity barriers to bring remote access and easy data transfer to hard-to-reach aspirated detection applications. These communications protocols can be used for configuration, troubleshooting, monitoring and maintenance. The ModuLaser also offers the ability to report fire alarms or faults via email**. 4 different email addresses are supported, which can be configured to either receive fire alarms or faults or the combination of that. The Command module version of the display module can also be configured to interface with Building Management Systems (BMS) via ModBus protocol over IP**. In addition, the ModuLaser supports a range of APIC** interfaces for compatibility with third-party addressable detection loops – a particularly valuable feature for building retrofits and system expansions.

Each docking station backplane provides two fully programmable monitored inputs and three fully programmable volt free outputs for integrating ASD with other systems. Inputs and outputs on any unit in a cluster can be activated by its own module or other modules within the cluster creating many different cause and effect combinations.



Add some colour to your life

Bright easy-to-see colour TFT screen combined with universal navigation and control buttons take the guesswork out of programming and diagnostics. The high resolution display adds the dimension of colour to data retrieval and navigation. Its clean, easy-to-follow interface colour- codes critical information for added clarity, while navigation keys and context-dependent buttons provide positive tactile feedback with each interaction. The screen also offers the ability to view data in a graphical format.



Easy pipe connection

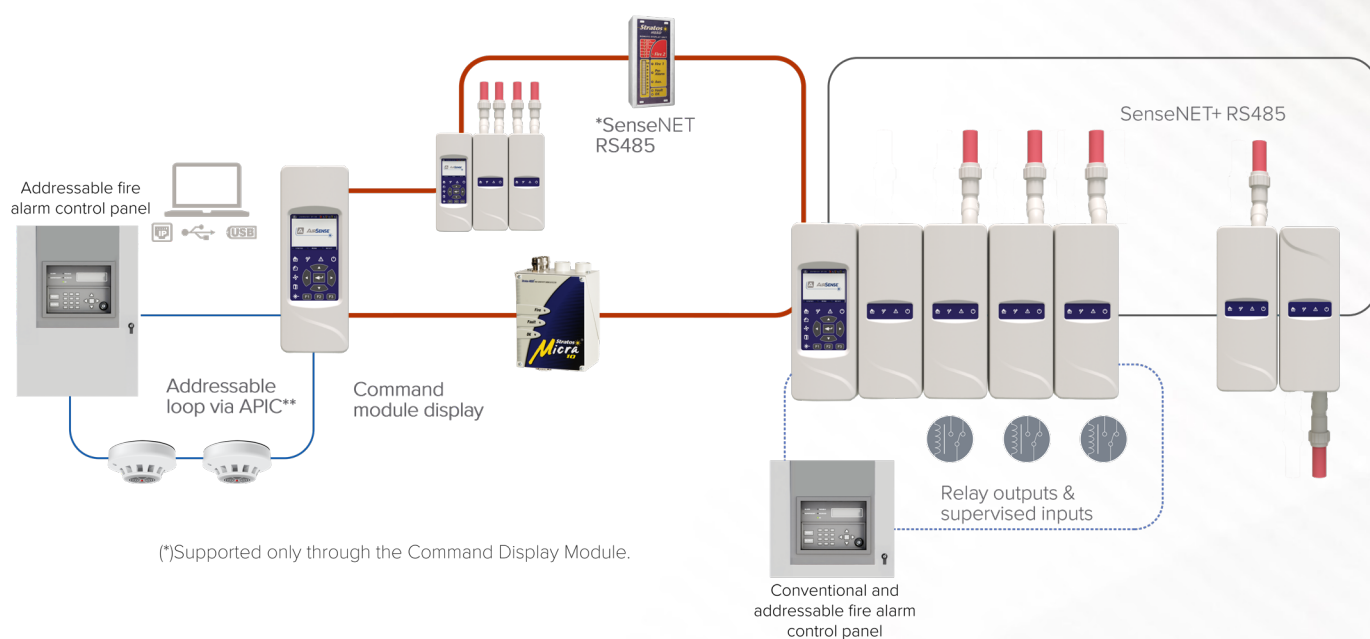
The patented quick fit pipe adaptor is designed to easily facilitate the connection and removal of pipework from the detector module.

Designed to seal around the pipework by means of a threaded collar, the adaptor can easily accommodate 3/4" or 25mm pipework.

The adaptor is flexible in its two part construction allowing the installer the ability to twist the connector to compensate for any minor pipework misalignment.



System Overview





MINILASER

What is MiniLaser?

MiniLaser is a cost-effective aspirating smoke detection solution that delivers very early warning detection for applications with tight budgets and limited space. It is designed to be easy to install and maintain, while maintaining high product quality and reliability.

MiniLaser incorporates clip-in docking stations that enable flexible and repositionable installation. It supports 0° and 180° orientation, with pipe entry from the top or bottom and cable entry from the top, bottom, or rear.

It offers dual-mode configuration: simple setup via DIP-switches using predefined pipe designs, or advanced configuration for more complex applications.



How it stands out and where to use it

MiniLaser provides very early warning detection for applications with tight budgets and limited space. It is designed as a cost-effective solution, easy to install and maintain, while maintaining high product quality and reliability.

Typical applications

Pharmaceutical storage (manufacturing areas where environmental control is critical)
MRA rooms
Elevator shafts
Electrical switch rooms

Target applications

IT & data infrastructure

- Server rooms
- Small-scale data centres (boutique data halls)
- Network Operations Centres (NOCs)
- Telecommunications facilities (requiring reliable early detection without the need for enterprise-level investment)

Specialized environments

- Clean rooms
- Laboratories
- Cold chain logistics

Heritage & high-value assets

- Museums
- Archives
- Historic buildings
- Art galleries
- Cultural institutions (where traditional detection is insufficient and preservation is critical)

Its bidirectional design allows detector modules to slide into place without adjustments or jumpers, automatically adapting the display orientation. Configuration is carried out via the display or PC, with four access levels.

Modules can be installed outside hazardous areas to facilitate maintenance. The quick-fit pipe adapter supports 3/4" or 25 mm pipes and compensates for minor misalignments.



Added value & applications

MiniLaser features clip-in docking stations that enable flexible and reconfigurable installation. These stations accommodate all field wiring, protecting sensitive components until the final stage of installation. Cable entry is possible from the top, bottom, or rear, with mounting options including screws or DIN rail.

Detectors are easily mounted and can be oriented for pipe entry from either the top or bottom.

System integration & expansion

If additional I/O is required, the expansion module supports up to two I/O expansion modules. Each I/O module provides 2 inputs and 5 outputs, which can be configured according to on-site requirements.





CAUTION
WATCH OUT FOR
FORKLIFTS



Approvals and availability

EN54 approval is compliant. UL/ULC and FM certifications are currently in progress.

EN54-20





MODULASER®

MINILASER



To visit our website,
scan the QR code: