Stratos Micra

Stratos-Micra heralds a new era in incipient fire detection...

Since the late 1970s it has been possible to provide incipient fire detection in an ever-more diverse range of applications. Generally speaking, this has provided a high degree of protection for the entire area, but with very little ability to pinpoint incident location. For the first time it now becomes a realistic proposition to apply dedicated detection for areas which may have been borderline decisions for Incipient Detection technology in the past, or for small rooms and critical value equipment.

Stratos-Micra compliments both conventional detectors and other aspirating detectors such as the Stratos-HSSD system.

Sensitivity

Stratos-Micra (and Stratos-HSSD) are easily the most sensitive smoke detectors available. Furthermore, when such a detector is applied to small volume enclosures or areas, the effective sensitivity of the system becomes proportionately greater. The benefit is the very earliest warning possible in the detection area.
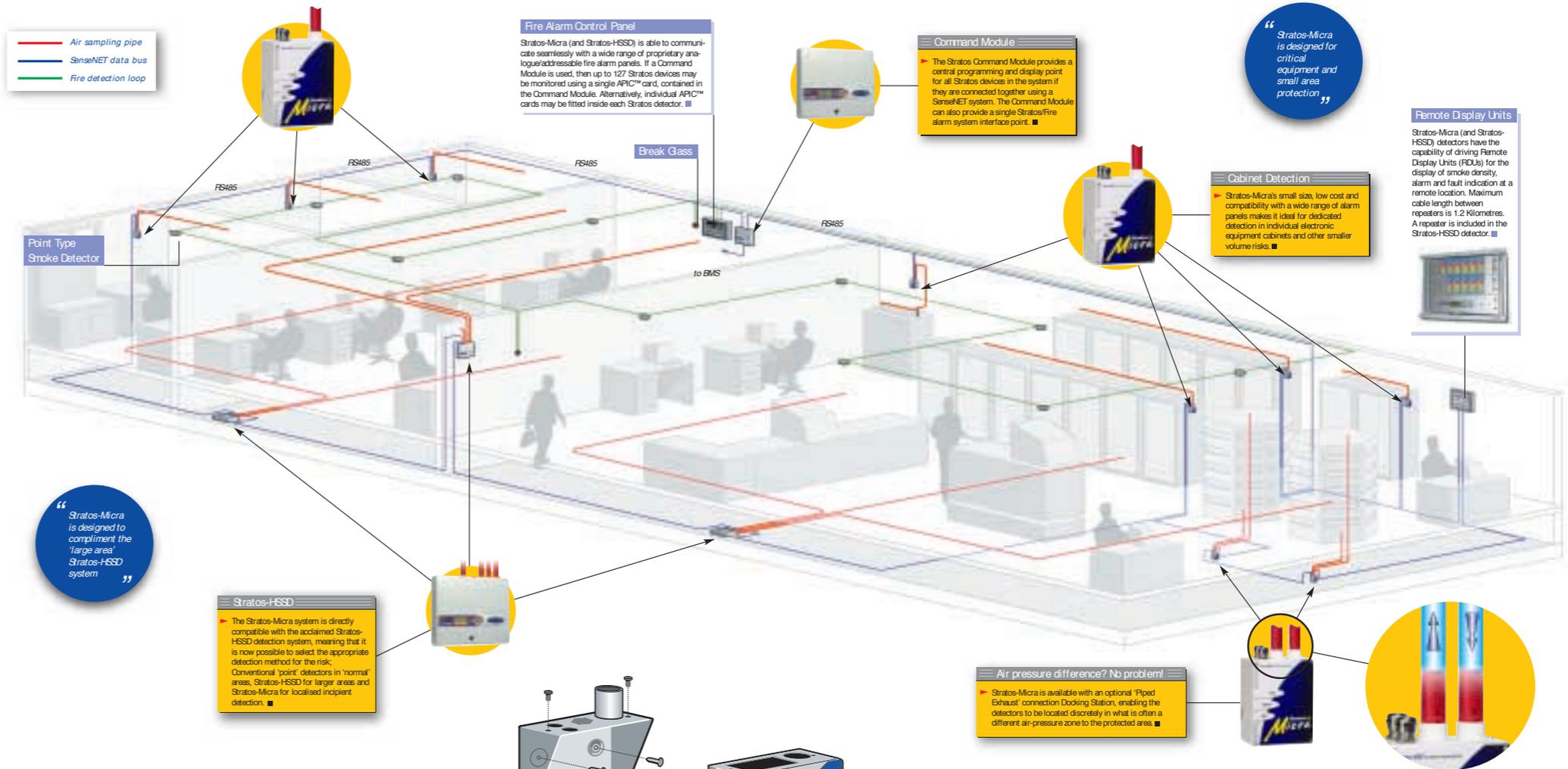
ClassiFire®

In common with all AirSense Technology detection products, Stratos-Micra employs our sophisticated and Queen's Award winning Artificial Intelligence system; ClassiFire. This system controls all aspects of the detector sensitivity setting and automatic day/night switching. ClassiFire not only makes commissioning supremely simple and effective, it also allows the system to 'condition' itself to suit the environment in which it is applied on a day-by-day basis, providing unwavering protection.

Size

At a diminutive 135 x 175 x 80mm @ 1Kg, Stratos-Micra is by far the smallest dedicated aspirating detector yet produced.

Dust discrimination

Stratos-Micra employs dust filtration and Laser Dust Discrimination LDD™ as a standard feature. This makes the system suitable for a wide range of environments, including; paper/flour mills, generator areas, telecoms areas, furnace rooms, computer environments etc.

Stratos-Micra & Stratos-HSSD 2 (Command Module)

" Stratos-Micra is designed for critical equipment and small area protection "

" Stratos-Micra is designed to compliment the 'large area' Stratos-HSSD system "

Legend
- Air sampling pipe
- SenseNET data bus
- Fire detection loop

Fire Alarm Control Panel
Stratos-Micra (and Stratos-HSSD) is able to communicate seamlessly with a wide range of proprietary analogue/addressable fire alarm panels. If a Command Module is used, then up to 127 Stratos devices may be monitored using a single APIC™ card, contained in the Command Module. Alternatively, individual APIC™ cards may be fitted inside each Stratos detector.

Command Module
► The Stratos Command Module provides a central programming and display point for all Stratos devices in the system if they are connected together using a SenseNET system. The Command Module can also provide a single Stratos/Fire alarm system interface point. ■

Remote Display Units
Stratos-Micra (and Stratos-HSSD) detectors have the capability of driving Remote Display Units (RDUs) for the display of smoke density, alarm and fault indication at a remote location. Maximum cable length between repeaters is 1.2 Kilometres. A repeater is included in the Stratos-HSSD detector. ■

Cabinet Detection
► Stratos-Micra's small size, low cost and compatibility with a wide range of alarm panels makes it ideal for dedicated detection in individual electronic equipment cabinets and other smaller volume risks. ■

Point Type Smoke Detector

Break Glass

to BMS

RS485

Stratos-HSSD
► The Stratos-Micra system is directly compatible with the acclaimed Stratos-HSSD detection system, meaning that it is now possible to select the appropriate detection method for the risk; Conventional 'point' detectors in 'normal' areas, Stratos-HSSD for larger areas and Stratos-Micra for localised incipient detection. ■

Air pressure difference? No problem!
► Stratos-Micra is available with an optional 'Piped Exhaust' connection Docking Station, enabling the detectors to be located discretely in what is often a different air-pressure zone to the protected area. ■

The smallest, most discrete aspirating system

New level of sensitivity/performance
Stratos-Micra contains the same laser detection chamber and ClassiFire® Artificial Intelligence software as the acclaimed Stratos-HSSD 2 detector. When such a device is used for the protection of a relatively small volume, the reduction in smoke dilution results in previously undreamed of performance levels. Further more, because the Stratos-Micra is typically used to protect small volumes, the effect of external smoke sources is relatively low. Nuisance alarms are virtually eliminated, while performance is enhanced. True incipient fire detection is guaranteed. The Stratos-Micra provides in many instances a true fire PREVENTION system.
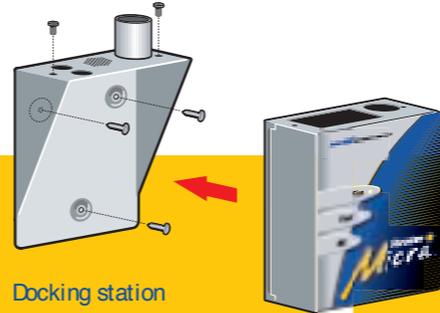
Docking station
The Stratos-Micra is equipped with a 'docking station' to facilitate simple installation. An optional 'piped exhaust' docking station is available where needed.

APIC™ Seamlessly compatible with most analogue/addressable systems
Stratos-Micra (and Stratos-HSSD 2) provide for simple connection to a range of proprietary Alarm Panels by direct communication using the panel manufacturers protocol. The APIC (Addressable Protocol Interface Card) may be mounted directly in the detector for monitoring of individual detectors.

Using a Command Module equipped with the APIC uniquely allows up to 127 detectors to be connected directly to the host addressable panel with a single interface.

Applications:
- Data storage units
- Prison cells
- Plant rooms
- Air conditioning units
- Equipment racks
- Air duct protection
- Heritage property protection
- Critical equipment
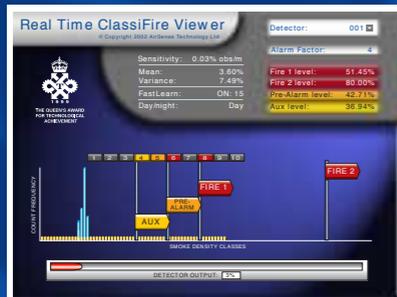- Anti-smoking enforcement
- Motor rooms

ClassiFire-3D® - Artificial Intelligence

" ClassiFire effectively subtracts background smoke, making high sensitivity more usable than 'absolute scaled' detectors. "

ClassiFire-3D® is a unique patented 'Artificial Intelligence' (AI) system which enables Stratos detectors to condition themselves to suit the environment in which they are installed. Until the advent of ClassiFire, the setting of high sensitivity smoke detection systems was at best a hit or miss procedure, based largely upon the installers estimation of 'normal' smoke density. ClassiFire has revolutionised the setting of High Sensitivity Systems, taking guesswork out of the equation and simplifying system set-up. ClassiFire uses a dedicated microprocessor to continually manipulate data and adjust the sensitivity of the system for a simply defined level of performance. ClassiFire discriminates between 'smoky' and 'clean' operating periods such as day and night, automatically substituting appropriate system sensitivity without the need for external input or adjustment. The system literally 'thinks' for itself, even to the degree that the system will not be fooled by clock changes or prolonged holiday shut-down periods. ClassiFire ensures that Stratos-HSSD operates at maximum safe sensitivity to give warning of problems earlier than previously considered possible. ClassiFire is the most comprehensive intelligence found in any smoke detection system to-date... so sophisticated, that its invention was considered significant enough to allow AirSense Technology to be the first and only fire detection company to win the coveted Queen's Award for Technological Achievement.

Clean environment

Smoky environment

STRATOS-MICRA SPECIFICATION

Supply Voltage	21.6V - 26.4V DC
Size	135W x 175H x 80D
Weight	1.01kg
Operating temperature range	-10 to +60°C
Operating humidity range	0 - 96% non-condensing
Sensitivity range (%Obs/m)	Min = 25% Max = 0.03% FSD
Maximum sensitivity resolution	0.003% obscuration per metre
Detection principle	Laser light scattering mass detection and particle evaluation
Particle sensitivity range	0.003μ to 10μ
Dust discrimination principle	Paired pulse amplitude
Current consumption	250mA @ 24V DC
Maximum sampling pipe length	50m
Sampling pipe internal diameter	7.5-22mm
Chamber service intervals	Greater than 8 years (dependant on environment)
Dust separator replacement intervals	Dependant on environment (typically 3 years)
Laser lifetime (MTTF)	greater than 1000 years
Programming	PC
Data bus cable	RS485 data cable
Maximum data bus length between isolators	1.2 Km

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Stratos Micra™

Localised High Sensitivity Smoke Detection

THE QUEEN'S AWARD FOR TECHNOLOGICAL ACHIEVEMENT