Stratos-HSSD ✦2

...the ultimate in *high sensitivity aspirating smoke detection*

AirSense crosses a new horizon with its award winning Stratos-HSSD® Series-2 High Sensitivity Smoke Detection system.

The team behind the Stratos-HSSD system has almost 200 man-years experience in the field of air sampling High Sensitivity Smoke Detection systems. This unparalleled depth of experience

has been drawn upon to produce the Stratos-HSSD series 2 system. Stratos-HSSD® embodies many unique features to maximise performance and increase reliability compared to other aspirating detection systems. Stratos-HSSD is recognised as being the easily the most sensitive system available, but coupled to the unique ClassiFire® Artificial Intelligence

(AI) process, this need not mean a high rate of nuisance alarms. Stratos-HSSD is the only optical high sensitivity system which is routinely applied to the protection of very dirty and dusty environments. This is achieved by combining Laser Dust Discrimination (LDD™) with a patented dust management and separation system. At the other extreme, Stratos-HSSD

is capable of providing the very highest levels of sensitivity in environments such as computer areas and clean rooms. In these applications it is able to give warning to the very slightest trace of smoke. Stratos-HSSD is fully capable of reacting to true INCIPIENT fire situations, thereby preventing damage. Stratos-HSSD provides the EARLIEST warning.

Stratos-HSSD-2 has been designed to compliment architecture of the new millennium with low-profile and uncluttered lines.
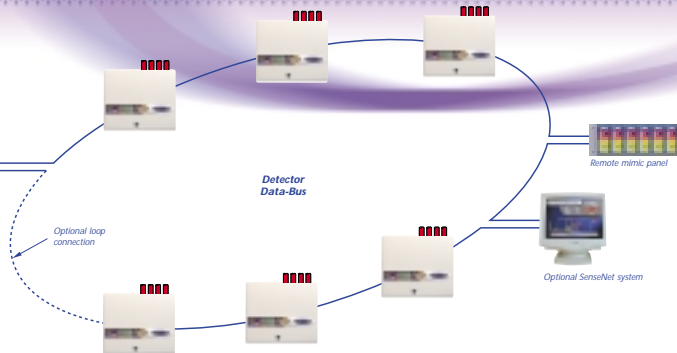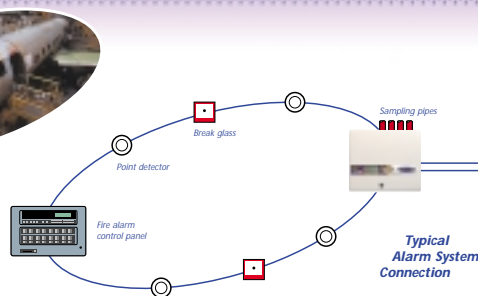
papermills   production areas   historic buildings

control rooms   warehouses   museums

Break glass

Point detector

Sampling pipes

Fire alarm control panel

Typical Alarm System Connection

Optional loop connection

Detector Data-Bus

Remote mimic panel

Optional SenseNet system

Classifire® - Artificial Intelligence

Real time viewing

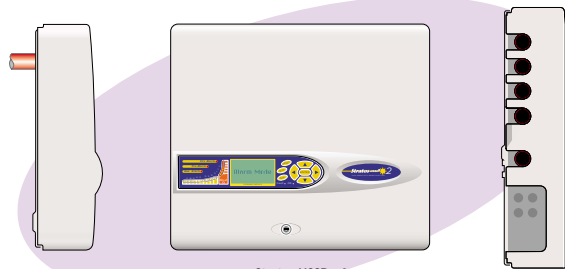*Monitor your protected environment from anywhere in the world*

Classifire® - Keeping you up to-date

ClassiFire® 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 'dirty' 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.

1999

THE QUEEN'S AWARD FOR TECHNOLOGICAL ACHIEVEMENT

'A first for the Fire Detection Industry.'The Queen's Award is the highest accolade that can be bestowed on a UK business for technological achievement.
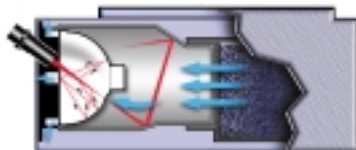
Stratos-HSSD 2

Pipes at rear for discrete detection

Stratos HSSD - 2

The Queen's Awards are the highest accolades that can be bestowed on a UK business. Recognised as the gold standard of corporate achievement, and awarded only to those with a proven record of excellence. It is the award that every business wants to win.

1999 saw the first ever Queen's Award for Technological Achievement with a fire detection product. That product was the Stratos-HSSD® aspirating smoke detection system.

Over 12,000 applications worldwide...

UK	New Zealand	Belgium	Taiwan
Canada	Argentina	Germany	UAE
USA	Chile	Austria	Dubai
Russia	Mexico	Hungary	Jordan
China	Namibia	Switzerland	Papua New Guinea
Malaysia	India	Romania	Vietnam
Netherlands	Spain	Denmark	Thailand
Norway	France	Turkey	Laos
Iceland	Portugal	Egypt	Korea
Finland	Italy	Oman	Pakistan
Sweden	Greece	Zimbabwe	Myanmar
South Africa	Singapore	Peru	Seychelles
Australia	Brazil	Poland	Tanzania

SPECIFICATION

Supply Voltage	21.6V - 26.4V DC
Size	427W x 372H x 95D
Weight	5.2kg
Operating temperature range	-10 to +60oC
Operating humidity range	0 - 90% Non Condensing
Sensitivity range (%Obs/m)	Min = 25% Max = 0.03% FSD
Maximum sensitivity resolution	0.015 %Obs/m
Detection principle	Laser light scattering mass detection and particle counting
Particle sensitivity range	0.0003µ to 10µ
Dust discrimination principle	Laser Dust Discrimination (LDD)
Current consumption	400mA @ 24V DC
Maximum sampling pipe length	200 metres total
Sampling pipe inlets	4 on top and 4 at rear
Sampling pipe internal diameter	15-25mm
Alarm levels	4 (Fire 2, Fire 1, PreAlarm and Aux)
Bargraph sensitivity range	0.0015 - 25% obs/m
Bargraph segments	25
Chamber service intervals	greater than 8 years (depending on environment)
Dust separator replacement intervals	greater than 5 years (depending on environment)
Laser lifetime (MTTF)	greater than 1000 years
Programming	Front panel or PC via RS232/RS485
Data bus cable	RS485 data cable
Data bus length	1,200m IN 1,200m OUT
IP rating	IP50
Supported languages on internal programmer	Czech, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Norwegian, Spanish, Swedish

Unique Laser Detection

The detection principle used in the Stratos-HSSD-2 system is a patented 'laser forward scatter' system. A powerful semiconductor laser is directed through an aperture in a specially designed reflector. Any combustion products present in the moving air sample will scatter a cone of light onto the reflector and from there it is focussed onto a single photo-receiver. This system has several advantages, including: inherent immunity to dust/dirt build-up, high signal to noise level and resistance to problems caused by vibration and high humidity. The signal from the detection transducer is processed by the unique ClassiFire® Artificial Intelligence system. The system uses a patented 'wastegate' system which bypasses the majority of sampled air, maximising service life and permitting operation in diverse environments.

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Quality system cert. no. 404
Assessed to ISO 9001

High Sensitivity Smoke Detection

THE QUEEN'S AWARD FOR TECHNOLOGICAL ACHIEVEMENT

1999