

Aspiration Systems for Smoke Detection





Technology pioneers in high-sensitivity air-sampling smoke detection systems

Providing solutions beyond traditional smoke and fire detection.

Xtralis manufactures the widest range of certified air-sampling smoke detectors in the industry – from an aspirated point-in-a-box (PIAB) detector to the unique 15-channel addressable detector. Xtralis ICAM detectors excel in area coverage and powerful performance and are suited to a host of applications – stand-alone or networked, smoke and even environmental monitoring – in the most demanding environments.

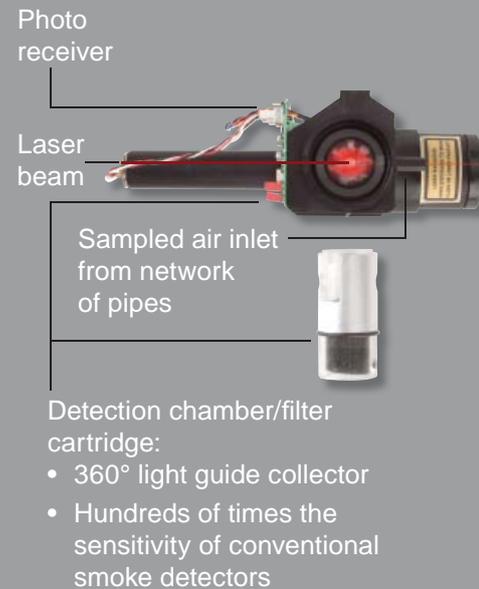
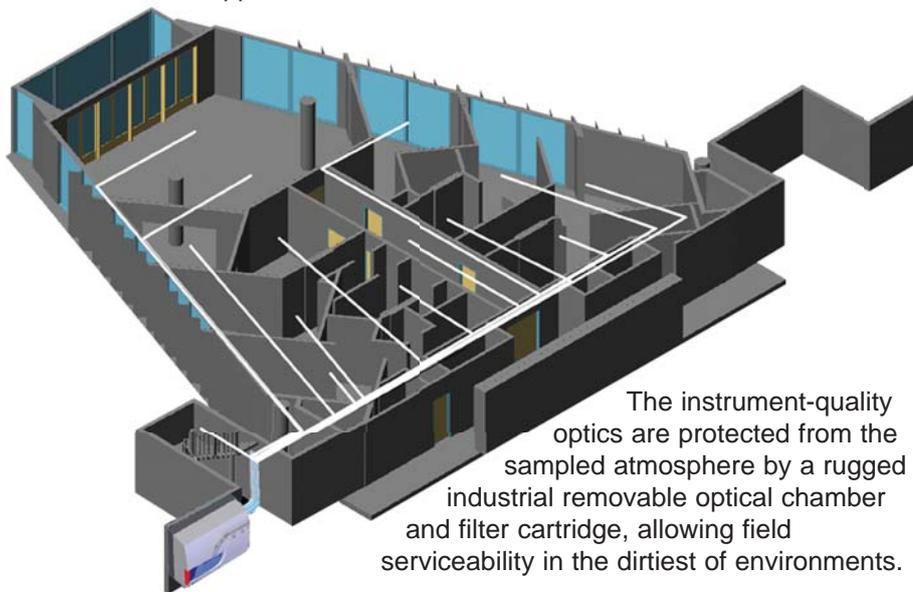
Our state-of-the-art detectors, built for flexibility and dependability, are found in power stations, telecommunication sites, mines, IT facilities, LCD fabs, semiconductor clean rooms, prisons, warehouses, cold storage rooms, harsh and hazardous areas, trains, historic buildings, museums and even in residences.

The ICAM range provides powerful diagnostic information and communication with monitoring, programming, graphics and control of all detector functions fully accessible from virtually anywhere.

Approved worldwide and manufactured according to the strictest ISO 9000 quality control procedures, the Xtralis ICAM range includes both air-sampling point detectors and very high sensitivity air-sampling smoke detection systems.

How do the world's finest air-sampling systems work?

The Xtralis ICAM IFT high-sensitivity smoke detector is an instrument-quality nephelometer collecting scattered laser light from smoke particles over a full 360 degree sweep. The resultant sensitivity is 0.001% obscuration/m (0.0003% obs/ft), several hundred times more sensitive than conventional smoke detectors. This sensitivity coupled with advanced processing and filtration enables IFT systems to be employed in the world's most demanding smoke detection applications.



Understanding TIME

The image below shows the evolution of a fire on an overheating printed circuit board in a computer cabinet. The event progresses from releasing small invisible particles into a raging fire over a substantial period of time. The more time you have to react to an event decreases the likelihood of loss and ensures the maintenance of your business. The additional response time provided by early detection allows investigation of minor events with minimal business disruption before fire causes catastrophic loss.





When every second counts

When fire and catastrophe strike, when the existence of a business and lives are at stake, when time is of the essence, then high sensitivity air-sampling smoke detection is the **ONLY** solution!

The Xtralis ICAM IFT air-sampling system actively draws air from the protected area through a network of 25 mm rigid sampling pipes perforated with sampling holes along their length.

This pneumatic system is powered by a 2000 Pa aspirator fan which functions in very high airflow open areas, air-conditioned environments and clean-rooms. Other air-sampling systems typically operate on a tenth of the IFT suction, which renders them ineffective in more challenging and difficult applications.

Key features

- 4 Alarms - Alert, Action, Fire 1, Fire 2
- Up to 100 m sampling pipe per channel
- TCP/IP Ethernet interface
- Remote monitoring support
- Powerful 2000 Pa fan
- RS232 and RS485 Modbus
- Logs up to 20000 events
- Optional output module
- Unique field removable and serviceable optical chamber
- Serviceable two stage particle filter
- External in line air filters for harsh environment
- Closed loop sampling for hazardous environments
- Absolute calibration of the detection chamber
- Microprocessor controlled
- Approvals: FM, UL, VdS, CFE, CE-EMC, LVD and CPD, EN-54-20

IFT-1, IFT-4 and IFT-6



- Single, four and six areas
- High sensitivity laser detection
- 0.001% to 20% obscuration/m (0.0003% to 6% obs/ft)
- Modular optional relay output units
- Optional 4-20 mA output module
- 24 VDC operation (standard)
- With or without display



IFT-P



- Small compact footprint
- Up to 2000 sqm of protection
- 0.001% to 20% obscuration/m (0.0003% to 6% obs/ft)
- IP65
- 24 VDC operation



And when the exact location is crucial

Standard air-sampling systems are well known for their early warning capabilities. However, in certain applications, it is critical to precisely locate the source of the incident. Where the location is critical and a visual search is impossible to perform quickly, Xtralis ICAM's unique addressable air-sampling technology provides a powerful solution.

The Xtralis ICAM IFT-15 detector uses unique microbore technology that can monitor up to 15 individual addressable sampling points. Microbore continuous flexible sampling tubes are simple and unobtrusive to install, affording a very cost effective solution to air sampling with the integrity of a continuous uncut run of sampling tube.

IFT-15



- 6 mm flexible air sampling pipe
- Rapid scan of inlets with rotary selector valve
- High sensitivity laser detection
- 0.001% to 20% obscuration/m (0.0003% to 6.10% obs/ft)
- 15 pipe, 15 area
- 4 Alarms - Alert, Action, Fire 1, Fire 2 per pipe
- Powerful suction rotary vane vacuum pump
- Large, clear display panel and optional RDUs
- TCP/IP Ethernet interface
- Remote monitoring support
- RS232 and RS485 Modbus
- Optional 4-20mA output module and relay modules
- 24 VDC operation (standard)
- Optional environmental module





IAS-1 and IAS-2 Aspirated Smoke detector



ILS-1 and ILS-2 Laser Aspirated Smoke Detector

Extending the capability of traditional smoke sensors

Air-sampling point detectors are highly effective where traditional smoke detection often fails. IAS and ILS systems are ideal for applications in harsh, dusty and inaccessible spaces, as well as those critical environments that do not warrant the expense of a larger air-sampling system. They have also been applied as a unique solution in intrinsically safe environments.

Key features

- Single and dual channel in one enclosure
- Up to 2 x 100 m pipes
- IP65 enclosure
- Adjustable airflow
- Sensitive airflow monitoring
- Internal serviceable cartridge air filter
- Powerful suction 250 Pa fan
- 24 VDC operation
- VdS approved
- Double knock suppression control

The air is sampled from the protected area through one or two inlet pipes and then is passed through an internal cartridge air filter to a single or dual channel controller. The sensors placed inside can be conventional or analog smoke detectors, yours or ours (refer to the Product Guides for more information). Exclusive home owners highly value them for their discrete aesthetics and versatility.

When the going gets tough

When increased sensitivity is added to the equation, the controller can be equipped with one or two laser detectors. Compared to standard smoke sensitivity of the traditional smoke sensor, 3-6% obscuration/m (0.9 to 1.8% obs/ft), the laser point detectors have an increased sensitivity of up to 0.06% obscuration/m (0.02% obs/ft).

Remote access and networking



ETHERNET

ETHERNET

Local and Remote Monitoring PC



Xtralis ICAM ASPIRE2

Plan and design your application

Response times and sensitivities for individual sampling points can be accurately modelled at the project planning stage with the ASPIRE2 simulation tool.

Features

- Building plan image insertion as bitmap or .jpeg
- Graphical image of pipes with sample area coverage
- Simple wizard for user inputs
- Modelling for capillaries, drop pipes and 'T's
- Effective smoke sensitivities for all alarm thresholds for each sampling point
- Response times for each sampling point



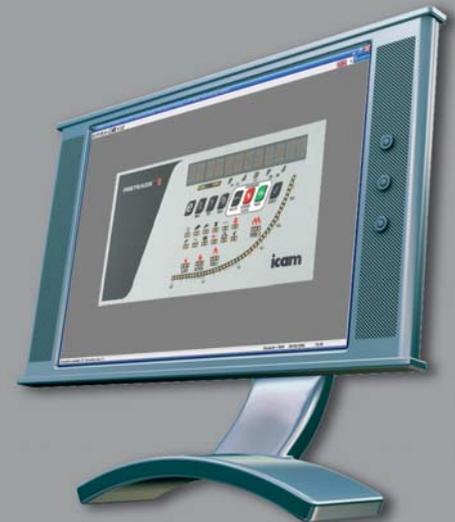
Xtralis VSC

Experience powerful diagnostics

Xtralis VSC is a comprehensive on-site diagnostic tool for accessing all the internal settings and logged data within the ILS and IFT ranges.

Features

- Intelligent management of ICAM devices
 - Configuration
 - Installation
 - Commissioning
 - Maintenance
 - Upgrade
- Fast device set up, fault resolution and event diagnostics
- Off-line configuration allows networks to be configured before the site visit and to corporate policies
- Comprehensive on-line and multi-language support



Xtralis VSM4

Have the system at your fingertips

Xtralis VSM4 is a powerful and user-friendly TCP/IP remote monitoring package

Features

- Fully integrated floor plans
- Status bar clearly displays the highest priority event
- Pull down menus
- Logical tree view
- Mouse-over hints
- On-line Help
- Scalable windows
- Multiple-Monitor Support
- Text-to-Speech
- Email notification
- Corporate policy prompts



Securing the toughest sites around

Unmanned sites

- Fully self-contained
- Additional environmental parameters monitored
- Web access

Warehouses

- Pipes can be placed within the racking
- Minimize maintenance costs
- Access difficult to reach areas which cannot be monitored by normal

Correctional Facilities & Detention Centers

- Tamper proof air sampling
- Central Maintenance facilities

Cold stores

- No heated detector bases
- Very Early Warning
- Unaffected by high airflows
- Simple installation

Mines

- Individual protection of high-voltage switchgear cabinets
- HV cabinets are bolted and cannot be opened easily
- PLC and control rooms
- Electrical substations

Historic buildings/ Museums

- Discrete monitoring
- Rapid response
- Monitoring valuable assets

IT rooms

- Extremely high sensitivity
- Individual cabinet identification
- Unaffected by high air speeds

Exclusive Residences, Apartments, Hotels, Shops & Offices

- Aesthetic, invisible
- Remote web monitoring

Utility providers

- Large area coverage
2000 sqm (20000 sq ft)

Transport

- Ideally suited to long compartments
- Concealed detection
- Automatic air pollution compensation
- Multiple sectors for carriage sets with integral cabs

Significant religious buildings

- Unobtrusive detection
- Earliest detection

Wind Turbines

- Smoke detection control during braking both Emergency and Operational
- Unaffected by arcing, lightning and static electricity
- Unaffected by air speeds within the generator
- Insensitive to environmental conditions



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Document: 14654 Version: 07 FcS