ICAM™ by xtralis™

Flexible Aspirating Smoke Detection

Technology Pioneers in High-sensitivity Aspirating Smoke Detection Systems

Providing Solutions Beyond Traditional Smoke and Fire Detection

Xtralis manufactures the widest range of certified aspirating smoke detection (ASD) systems in the industry – from an aspirated point-in-a-box (PIAB) detector to the unique 15-channel addressable detector. ICAM by Xtralis 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.

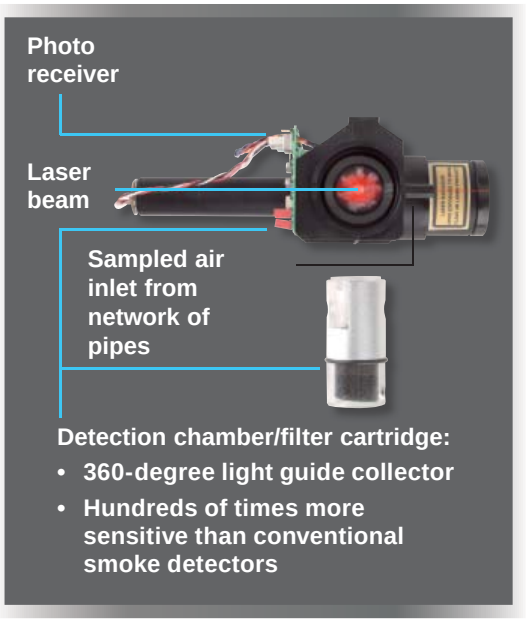
Our state-of-the art detectors, built for flexibility and dependability, are found in power stations, telecommunication sites, mines, IT facilities, LCD fabs, semiconductor clean rooms, prisons, warehouses, cold storage rooms, harsh and hazardous areas, trains, historic buildings, museums and even in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

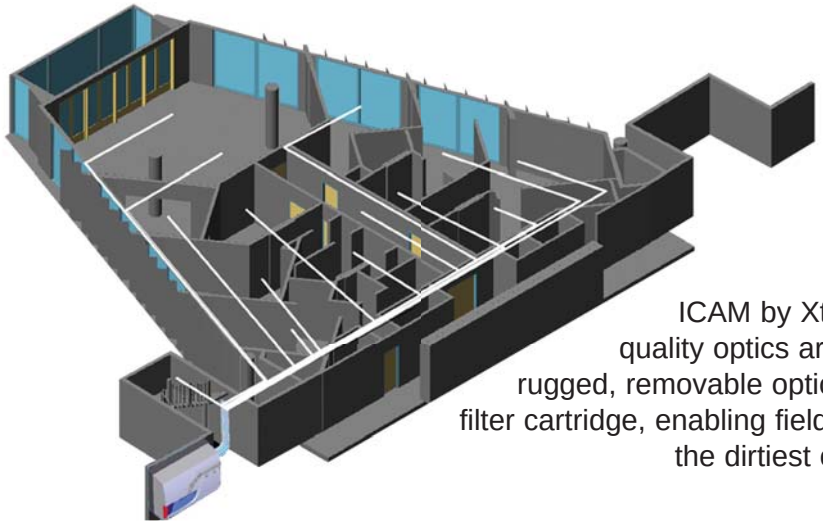
The ICAM range provides powerful diagnostic information and communication with monitoring, programming, graphics and control of all detector functions fully accessible from virtually anywhere.

Approved worldwide and manufactured according to the strictest ISO 9000 quality control procedures, the ICAM range includes both aspirating point detectors and very high-sensitivity ASD systems.

How do the World's Finest Aspirating Systems Work?

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

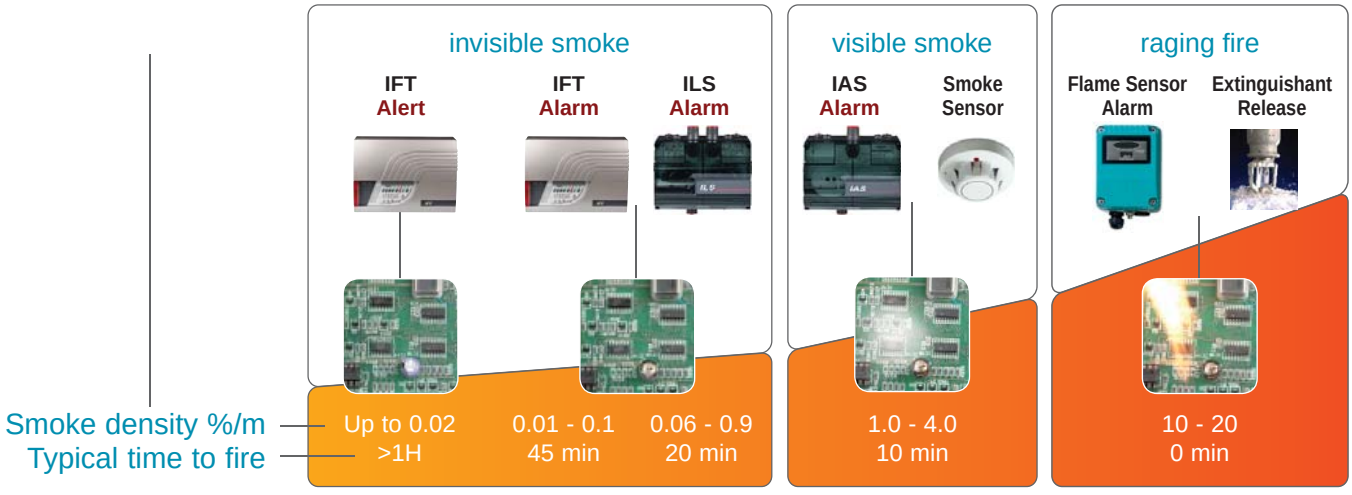




ICAM by Xtralis instrument-quality optics are protected by a rugged, removable optical chamber and filter cartridge, enabling field serviceability in the dirtiest of environments.

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, the less likely significant damage will occur, ensuring business continuity. The additional response time provided by early detection enables minor events to be investigated with minimal business disruption before fire can cause catastrophic loss.



When Every Second Counts

When a fire strikes, very early warning high-sensitivity aspirating smoke detection (ASD) is the only solution for protecting personnel and property.

The ICAM IFT ASD actively draws air from the protected area through a network of 25 mm (0.98 in) rigid sampling pipes perforated with sampling holes along their length.

This pneumatic system is powered by a 2,000 Pa aspirator fan that functions in open, very high-airflow areas, air-conditioned environments and clean rooms. Other aspirating systems typically operate on a tenth of the ICAM IFT's suction, which renders them ineffective in more challenging and difficult applications.

ICAM 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

ICAM IFT-P

- Small compact footprint
- Up to 2,000 m^2 (20,000 sq ft) of protection
- 0.001% to 20% obscuration/m (0.0003% to 6% obs/ft)
- IP65
- 24 VDC operation

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 2,000 Pa fan**
- **RS232 and RS485 Modbus**
- **Logs up to 20,000 events**
- **Optional output module**
- **Unique field removable and serviceable optical chamber**
- **Serviceable, two-stage particle filter**
- **External in-line air filters for harsh environments**
- **Closed-loop sampling for hazardous environments**
- **Absolute calibration of the detection chamber**
- **Microprocessor controlled**
- **Approvals: FM, UL, VdS, CFE, CE-EMC, LVD and CPD, EN54-20**

When Exact Location is Crucial

Standard aspirating 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, ICAM's unique addressable aspirating technology provides a powerful solution.

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

ICAM IFT-15

- 6 mm (0.24 in) flexible aspirating 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 pipes, 15 areas
- 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 4-20 mA output module and relay modules
- 24 VDC operation (standard)

Extending the Capability of Traditional Smoke Sensors

Aspirating point detectors are highly effective where traditional smoke detection often fails. ICAM IAS 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 aspirating system. They also have been applied as unique solutions in intrinsically safe environments.

ICAM IAS-1 and IAS-2

Key Features

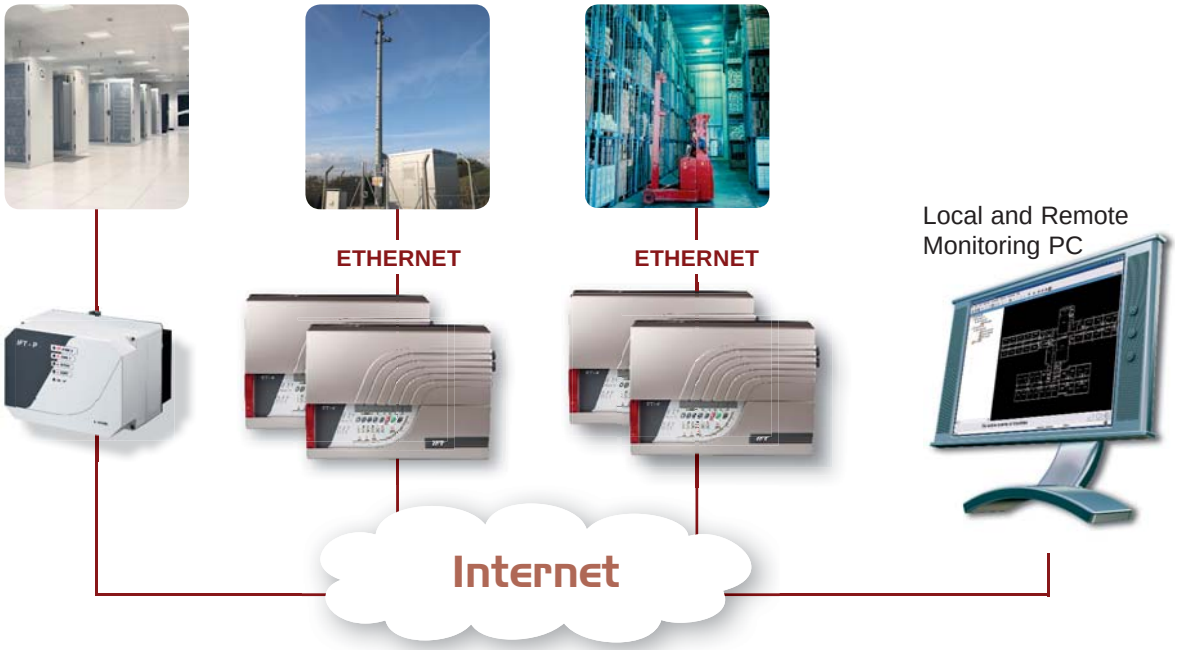
- Single- and dual-channel in one enclosure
- Up to 2 x 100 m pipes
- IP65 enclosure
- Adjustable airflow
- Sensitive airflow monitoring
- Internal serviceable cartridge air filter
- Powerful suction 250 Pa fan
- 24 VDC operation
- VdS approved
- Double-knock suppression control

Air is sampled from the protected area through one or two inlet pipes and then passed through an internal cartridge air filter to a single- or dual-channel controller. The sensors placed inside can be conventional or analogue smoke detectors, yours or ours (refer to the product guides for more information). Owners of exclusive residences 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 the standard sensitivity of the traditional smoke sensor, 3-6% obscuration/m (0.9 to 1.8% obs/ft), the laser point detectors have increased sensitivity of up to 0.06% obscuration/m (0.02% obs/ft).

Remote Access and Networking



ICAM ASPIRE2

Plan and Design Your Application

Response times and sensitivities for individual sampling points can be accurately modelled during the project planning stage with the ICAM ASPIRE2 pipe network design tool.

Features

- Graphical image of pipes with sample area coverage
- Simple wizard for user inputs
- Modelling for capillaries and drop pipes
- Support for standard pipe fittings and ICAM accessories, ICAM ECO and Xtralis In-line Filter
- 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 ICAM IFT product range.

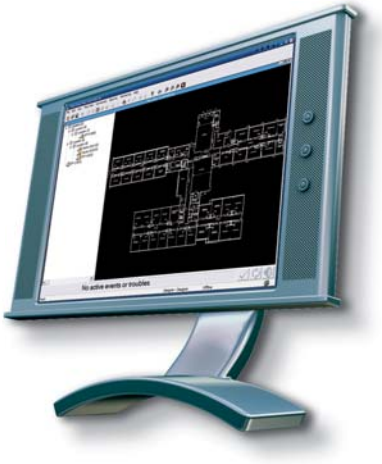
Features

- Intelligent management of ICAM devices
  - Configuration
  - Installation
  - Commissioning
  - Maintenance
- Fast device setup, fault resolution and event diagnostics
- Off-line network configuration before the site visit
- Comprehensive on-line and multi-language support

Xtralis VSM4

Have the System at Your Fingertips

Xtralis VSM4 is a powerful and user-friendly monitoring package.



Features

- Fully integrated floor plans
- Status bar clearly displays the highest priority event
- Logical tree view
- Mouse-over hints
- On-line help
- Scalable windows
- Multiple-monitor support
- Text-to-Speech
- E-mail notification
- Corporate policy prompts

Xtralis Protects the Toughest Sites Around

Unmanned Sites

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

Warehouses

- Pipes can be placed within racking
- Minimise maintenance costs
- Access difficult areas that normal detection cannot monitor

Correctional Facilities and Detention Centres

- 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 bolted and not opened easily
- PLC and control rooms
- Electrical substations

Historic Buildings/ Museums

- Discrete monitoring
- Rapid response
- Protection for valuable assets

IT Rooms

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

Exclusive Residences, Apartments, Hotels, Shops and Offices

- Unobtrusive detection
- Remote Web monitoring

Utility Providers

- Large area coverage 2,000 m^2 (20,000 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 emergency and operational braking
- Unaffected by arcing, lightning and static electricity
- Unaffected by air speeds within the generator
- Insensitive to environmental conditions







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