Cold Stores

ICAM™ by xtralis™

Superior Detection in Adverse Environments

Smoke and fire detection in cold stores represent a real challenge, as the environmental conditions of temperature, humidity and height rule out traditional point smoke detection.

Challenges Within Cold Stores

- Temperatures from -45°C to +8°C
- Heavy condensation
- Water vapour clouds
- Valuable contents and perishable goods
- High airflows diluting smoke
- Bad smoke transport due to low thermal conductivity
- Inaccessibility for installation, maintenance, testing and replacement

Linear heat cable is prone to freezing within ice - it cannot be relied upon for early warning of fire.

Packaging materials such as plastic boxes and wrapping, wooden pallets, polystyrene foam and polyurethane insulation are highly combustible materials and malfunction of conveyor belts or forklift trucks enhance the risk of fire in these environments. Extinguishing systems that are traditionally used in store rooms are not efficient in these freezing atmospheres and their use creates new risks and exceptional costs. Traditional point and beam smoke detectors cannot operate amongst the frost and condensation and linear heat cables respond too late.

ICAM aspirating systems provide reliable early warning detection in these challenging environments.

ILS-1 and ILS-2
Laser Aspirating
Smoke Detector

IFT-1
Aspirating Smoke
Detector

IFT-P
Aspirating Smoke
Detector

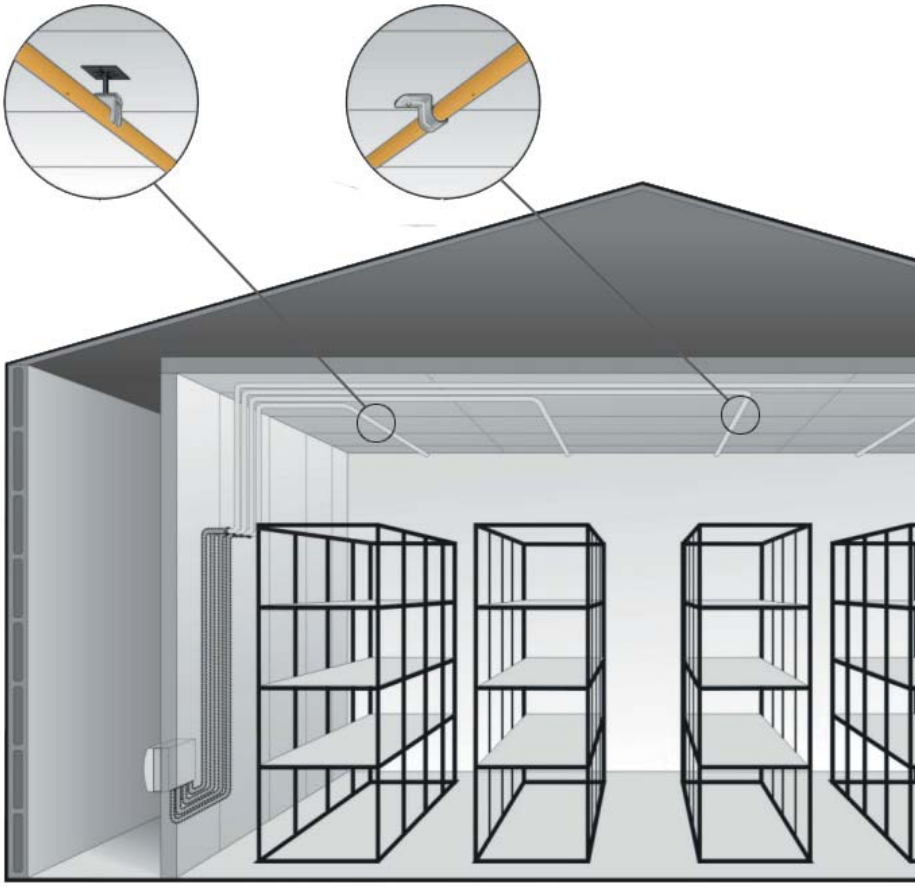
How Does It Work...

ICAM detectors provide proactive detection in harsh temperature environments by actively sampling air from a protected area via multiple sampling holes in a pipe network. The air sample is then transported to an externally located smoke detector to detect the presence of smoke.

Many industry standards require the installation of smoke detection at both the ceiling level and in the ceiling void area of the cold store. By positioning an ICAM detector outside the refrigerated area, the detector remains unaffected by the internal sub-zero temperatures. This allows an ICAM system to provide optimum smoke detection even in areas with maintenance and access difficulties.

ICAM provides reliable and enhanced smoke detection along with minimal cost of ownership. It provides reliable, very early warning of smoke in the high air movement within the cold stores and minimizes the likelihood of product contamination, facility and asset damage and distribution downtime.

In addition, the advance detection technology and design flexibility of an ICAM smoke detection system complement existing cold store operations of continual refrigeration, humidity control, automated processing system and storage configurations.



ICAM detector placed outside the cold room is unaffected by the extreme environmental conditions

Xtralis VSM4 - Have the System at Your Fingertips...

Xtralis VSM4 management software provides full and comprehensive integration of your fire protection systems. VSM4 configures, monitors and troubleshoots your fire systems. It is easy-to-use and has been designed to provide you, the operator, with complete control. The user-friendly interface allows you to quickly assess and respond to system events - all from one convenient location. Xtralis VSM4 is a total solution for integrated control and monitoring of your Very Early Warning smoke detection system.

Other Industries

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 detection

Correctional Facilities and 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 and Offices

- Aesthetic, invisible
- Remote web monitoring

Utility Providers

- Large area coverage 2,000 sqm (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 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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