



Warehousing and Logistics facilities

ICAM[™]
by  **xtralis**[™]

Keeping warehouses safe from fire

High rack storage facilities and warehouses are no match for traditional smoke detection systems. Height and unpredictable airflow combined with the typical layout of traditional detectors make it hard for these systems to perform. Passive detection systems such as point (spot) detectors are prone to contamination and blockage without notice in harsh environments. Beam detectors offer inadequate sensitivity and can only detect quite large fires. Beam detectors also have maintenance and reliability issues caused by beam interruption by forklifts, subtle building movement due to temperature and weather change and contamination of the exposed optics.

ICAM High Sensitivity Aspirated Smoke Systems effectively protect this challenging environment.

Challenges for traditional detectors within large warehouses

- Ceiling heights make testing and maintenance complex
- Complex airflow makes point-type detection uncertain
- Dirt, dust and humidity causes detector blockage
- Changing temperatures causes beam detector misalignment
- Maintenance at ceiling level can cause business interruption
- High value or perishable goods require protection from smoke and small fire risks
- Large open areas with limited fire compartmentisation
- Fast fire spread through rack chimney effect
- High maintenance cost of traditional detection
- Risks of stock damage from suppression release



The ICAM by Xtralis solution



ICAM IFT-P and IFT-1, IFT-4 and IFT-6

high sensitivity aspirating smoke detectors provide superior coverage for the large open spaces of warehouses and logistics facilities

ICAM pipework can be mounted on the ceiling or roof, and also within the storage racking, ensuring that sampling points are placed close to likely ignition points where the smoke will be detected as early as possible.



The ICAM detector can be installed at ground level. This makes it easy to test and maintain.

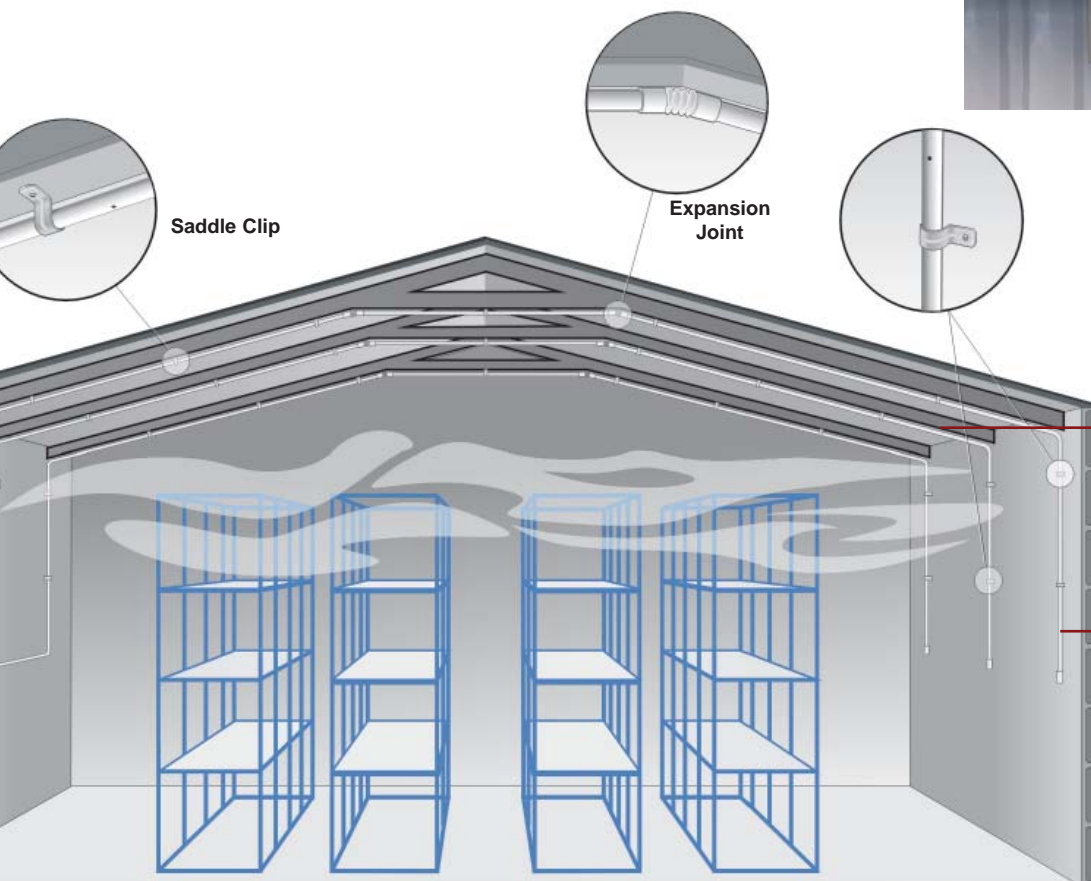


Maximum protection... Fast detection

The air from the protected area is drawn to the centrally placed detector through a simple network of pipes. The pipes can be placed on the ceiling, along beams or along racking. The detector reports the presence of fire risks to a fire alarm panel or a building management system.

ICAM detectors solve all the typical challenges in warehouses and logistics areas:

- Sampling the open area with a highly sensitive detector allows detection of diluted smoke from small fires, enabling early investigation and response.
- ICAM detector actively and constantly monitors the health of the systems including the airflow in the pipe network, proactively alerting the need for any maintenance.
- An extremely wide programmable sensitivity range enables the system to indicate very high levels of smoke for initiation of pre-action and clean-agent suppression.
- Multiple levels of alarm enable a staged response to any size of risk, reducing the cost of nuisance alarms.
- Clever design ensures the detector optics remain free from contamination to provide a long calibration-free service life and absolute clarity of detection performance.



The ICAM detector continuously samples the air from the warehouse, pulling it through holes in the sampling pipes and back to the detector.

Sample pipe can be installed vertically up walls or down racks. If the smoke forms a layer below ceiling level it will be detected by these sampling points.

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 & 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
2,000 sqm (20,000 sq ft)

Transport

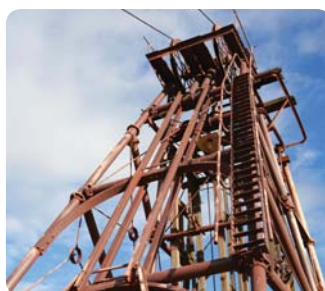
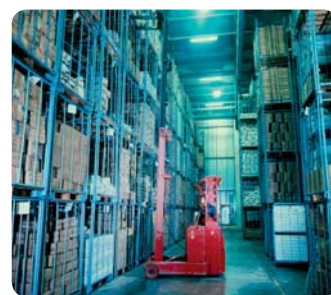
- Ideally suited to long compartments
- Concealed detection
- Automatic air pollution compensation
- Multiple sectors for carriage sets with integral cabs

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



www.xtralis.com

The Americas +1 781 740 2223 **Asia** +852 2916 8894 **Australia and New Zealand** +61 3 9936 7000
Continental Europe +32 56 24 19 51 **UK and the Middle East** +44 1442 242 330

The contents of this document are provided on an "as is" basis. No representation or warranty (either express or implied) is made as to the completeness, accuracy or reliability of the contents of this document. The manufacturer reserves the right to change designs or specifications without obligation and without further notice. Except as otherwise provided, all warranties, express or implied, including without limitation any implied warranties of merchantability and fitness for a particular purpose are expressly excluded.

This document includes registered and unregistered trademarks. All trademarks displayed are the trademarks of their respective owners. Your use of this document does not constitute or create a licence or any other right to use the name and/or trademark and/or label.

This document is subject to copyright owned by Xtralis AG ("Xtralis"). You agree not to copy, communicate to the public, adapt, distribute, transfer, sell, modify or publish any contents of this document without the express prior written consent of Xtralis.