SMOKE & HEAT DETECTION

OPEN-AREA SMOKE IMAGING DETECTION (OSID)

Large, open spaces – airports, train stations, stadiums and shopping malls – pose unique challenges to reliable fire detection due to their environmental nature and limitations.

OSID SUPERIOR FEATURES

- Maximum detection range up to 150 meters
- Status LEDs for fire, trouble and power
- High false-alarm immunity
- Dust and intrusive solid-object rejection
- Easy alignment with large adjustment and viewing angles
- High tolerance to building flex and vibration
- Simple DIP switch configuration
- Dual wavelength LED-based smoke detection
- Limited maintenance requirements
- Conventional alarm interface for straightforward fire system integration
- Configurable alarm thresholds
- Wired and battery-powered emitters available

OSID by xtralis

TECHNOSWITCH
FIRE DETECTION & SUPPRESSION

APPLICATIONS & INDUSTRIES

- Shopping Malls — 3D arrangement may be configured to protect many large, open spaces
- Long Corridors — Beam length up to 150 m
- Airport Terminals and Train Stations — Non-intrusive detection in a wide range of lighting conditions
- Heritage Buildings — Discreet and non-intrusive detection
- Suspended Ceilings — Discreet and flexible installation
- Challenging Logistics — Simple maintenance with no disruption to operations
- Indoor Stadiums and Arenas — Multi-layer detection
- Dirty Environments — Discriminates against dust, dirt and other intruding objects to reliably detect smoke
- Hotel and Office — Tower Atriums
- Churches and Cathedrals
- Exhibition and Convention Centres
- Industrial and Manufacturing Facilities

A NEW STANDARD IN OPEN-AREA SMOKE DETECTION

The OSID range of open-area smoke detectors deliver a great package for reliable smoke detection in large or open spaces.

With the use of CMOS imaging technology OSID not only provides reliable smoke detection but has been designed for rapid installation and reliable operation during the life time of the detector. No longer are installers faced with lengthy and costly installation processes and call backs; and end users are no longer disturbed by nuisance or false alarms associated with building movement; dust or beam interruption. A reliable alternative to heat or flame detectors which typically initiate much later in the fire development cycle.

OSID systems may be configured to protect a range of spaces, regardless of shape. The protection zone or “fire web” is determined by the placement of OSID detectors. Multi-emitter solutions provide a true 3D arrangement.

xtralis®
The sooner you know®

LIMITATIONS OF TRADITIONAL SMOKE DETECTION

- Susceptible to nuisance alarms
  - Dust and dirt
  - Birds and insects
  - Foreign objects
  - Fog and steam
  - Reflections
- High installation and maintenance costs
  - Difficult to align
  - Susceptible to building movement
- Affected by ambient lighting
- Inconsistent response to various smoke types

OPEN-AREA SMOKE DETECTION REINVENTED

Designed specifically for Open-Area environments , OSID enables early detection and response to save lives and prevent service disruptions.

A sophisticated algorithm maps and compares the strength of infrared (IR) and ultraviolet (UV) light signals from detectors configured in the area.

Installation costs are reduced thanks to OSID's ball and socket arrangement with simple laser screwdriver alignment. The Emitters come both battery powered and wired.

SUPERIOR FEATURES OFFERED BY OSID

- Patented dual wavelength, UV & IR, particle detection
- CMOS imager with wide viewing angles
- Simple installation, commissioning and maintenance – up to 70% time saving compared to traditional beams
- High tolerance to vibration and structural movement and high airflow
- High resistance to dust, fogging, steam, reflections and object intrusion
- High resistance to reflected sunlight
- Requires as little as 20 x 20 cm unobstructed width of view
- On-board log memory for fault and alarm diagnostics
- Software tool for diagnostic purposes
- Aesthetically discreet and 3D coverage
- Long range up to 150 m

Image Lens Type	Usable Field of View		Detection Range				Max Number of Emitters
	Horizontal	Vertical	Standard Power		High Power		
			Min	Max	Min	Max	
10°	7°	4°	30 m	150 m	–	–	1
90°	80°	48°	6 m	34 m	12 m	68 m / 50 m	7

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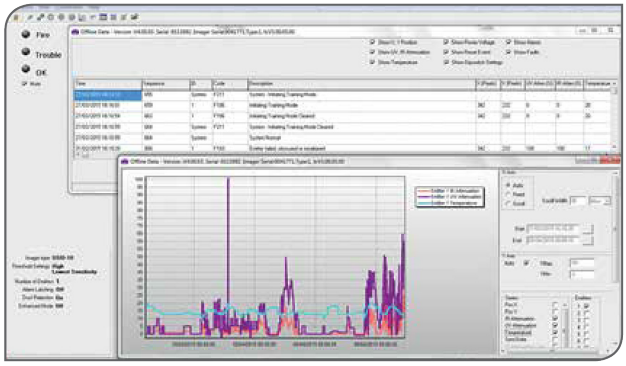
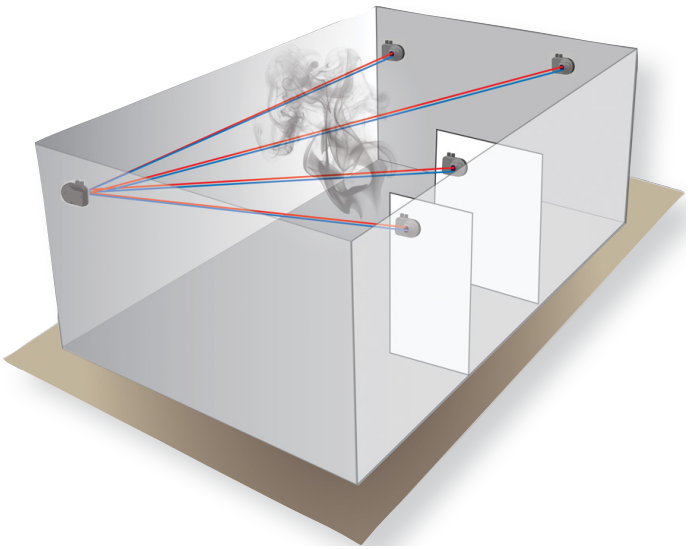
OSID DIAGNOSTIC SOFTWARE

OSID Diagnostic is a unique tool that allows for live and off-line diagnostic information about the system and environment.

The tool operates under Windows on a standard laptop PC and offers – when connected in the field to the Imager – real time live visualisation of the normalised UV and IR values (0-100 % obscuration), the UV and IR grey levels, the X–Y positioning of the 1–7 Emitters on the imager, reference levels and temperature.

The tools also allows for live and off-line evaluation of the imager's log files and reconstruct, with time and date stamp, any significant changes in the system. Log files can also be exported to an Excel file for quick analysis and review.





True spatial detection

WHERE FLEXIBLE DETECTION COVERAGE IS NEEDED

OSID can support up to 7 Emitters with a single Imager making it easy to deploy in unusually shaped areas.

Emitters can be placed at different heights to overcome stratification and provide earlier detection. This Multi-Emitter 3D approach also provides a 50 % better detection coverage because beams converging to one point are more closely spaced in the area.

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