Xtralis ICAM IAS

The Xtralis ICAM IAS Air-sampling Smoke Detection systems provide a flexible solution to meet the unique needs of numerous applications including industrial spaces such as cable tunnels, the tamper-proof and unobtrusive requirements of special accommodation, or can simply be used to replace spot (point) detectors in office environments.

How it Works

The IAS systems actively draw air from the protected area through sampling holes in a pipe network. Sampled air is then filtered before being analyzed by conventional or analog point detectors incorporated in the systems. The IAS system is available with one inlet pipe (IAS-1) or two inlet pipes (IAS-2), and can be fitted with one or two detectors per system. A number of detector technology types (photoelectric, ionization, heat, CO etc.) from a range of leading technology providers may be used.

The systems utilize a high performance aspirator and software configurable flow monitoring circuitry. Air flow level is displayed on a ten element bar graph that can be adjusted for high and low flow thresholds, and flow failure is reported as a device fault via relays to the loop.

Detection Strategies

The systems may be configured for a number of detection strategies including:

- single or dual addressable area detection
- redundant detection
- multi-criteria detection
- coincident or double-knock detection

Installer-specifiable point detectors offer benefits in simplicity of configuration and cost effectiveness. In circumstances where the premises are already protected by point detectors, the IAS system is easily introduced onto the existing fire alarm control panel signaling circuit by fitting equivalent detectors into the system[*].

* Subject to IAS system approval for the fitted spot (point) detector

Features

- Single or dual channel fire detection
- Multiple configuration options
- Multiple detection strategies
- Up to 100 m (328 ft) per sampling pipe
- Microprocessor controlled
- Highest fan capacity in its class
- Integral display and programmer
- Field serviceable air filter
- Adjustable aspirator speed with airflow monitoring
- IP65 enclosure

Listings/Approvals

- EN54-20 (VdS) (Sensitivity Class dependant upon point detector used)
- CE EMC
- CPD
- ActivFire

Detector Configuration Options

Several configuration options are available for the IAS-1 and IAS-2 systems:

- IAS-1 system – one or two spot (point) detectors
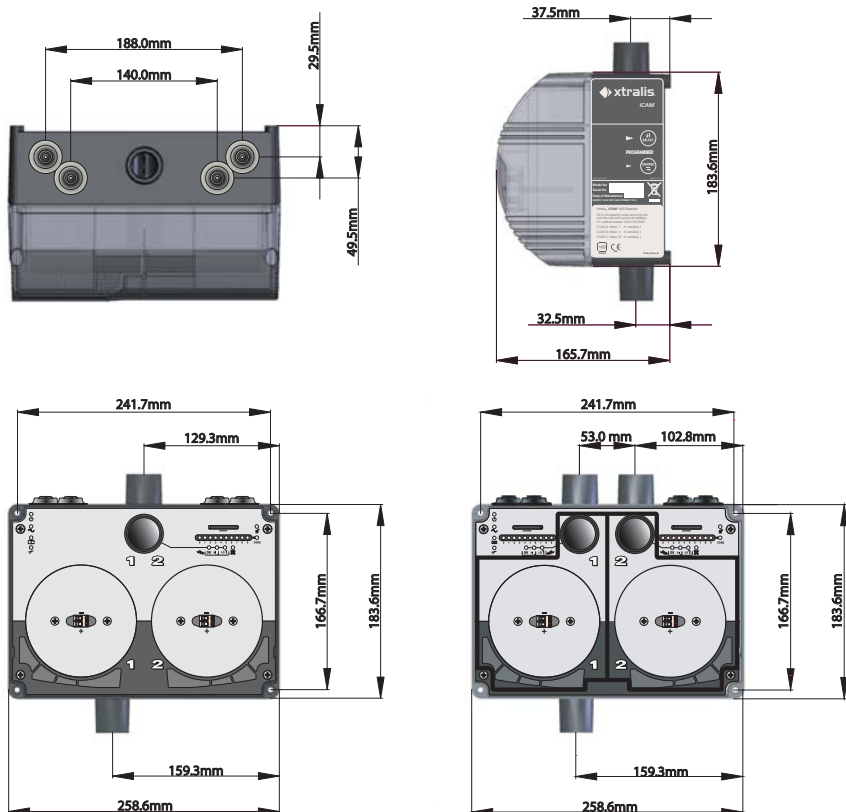- IAS-2 system – two spot (point) detectors

IAS-1 systems fitted with one spot (point) detector are capable of providing single area detection, but IAS-1 and IAS-2 systems fitted with two detectors are able to provide a number of detection strategies. The table below describes the recommended configuration options to fit the selected detection strategy when two spot (point) detectors are fitted into an IAS system.

		IAS-1	IAS-2
Two Detector Strategy	Dual Addressable Areas		✓
	Redundancy	✓ (OR)	✓ (OR)
	Multi-criteria	✓ (OR / AND)	✓ (OR / AND)
	Coincident / Double-Knock †	✓ (AND)	✓ (AND)

† Subject to local codes and standards

Note: (OR / AND) represents the suggested boolean logic for combining two detectors to achieve detection strategy

Dimensions

Ordering Information

Air-sampling Smoke Detector with 1 inlet	IAS-1
Air-sampling Smoke Detector with 2 inlets	IAS-2
Baffles for Spot (Point) Detector (variety available) and for the use of IAS-1 system with one detector	Enquire with Xtralis representative

Specifications

Supported detectors:
- 1 or 2 analog addressable or conventional spot (point) detectors
- a variety of detector technology types (photoelectric, ionization, heat, CO etc.)
- spot (point) detectors with universal screw mounting

Supply Voltage:
24 VDC nominal (18 to 30 VDC)

Note that spot (point) detectors are powered from the signaling circuit

Current:
300 mA (max)

Dimensions (WHD):
259 mm x 184 mm x 166 mm
(10.2 in. x 7.2 in. x 6.5 in.)

Operating Conditions:
Temperature: -10 to 60 °C (14 to 140 °F)
Humidity: 10 to 95% RH (non-condensing)

Inlet Pipe Size:
Outer Diameter: 25 mm (0.98 in.)
Inner Diameter: 21 mm (0.83 in.)

Sampling Network:
Pipe Length:
  Up to 100 m (328 ft) per inlet

Pipe length may vary subject to specifications by local codes and standards, please refer to your regional IAS product guide for further detail.

IP Rating:
IP65

Filtration:
Serviceable filter
External filter optional

Flow Monitoring and Reporting:
High and Low adjustable

Fan:
Control: 10 programmable speeds
Pressure: 250 Pa

Relay outputs:
IAS-1 - 1 fault relay
IAS-2 - 2 fault relays