



The ICAM ILS systems provide Laser Air-sampling Smoke Detection solutions to meet the unique needs of numerous commercial and industrial applications. ILS systems are suitable for both medium sensitivity and multi-hole Class C applications.

### How it Works

The ILS systems actively draw air from the protected area through sampling holes in a pipe network. Sampled air is then filtered before being analyzed by medium sensitivity laser spot (point) detectors incorporated in the systems. Alarm states (Alert, Action or Fire) are reported by activating functional LEDs in the display and dry contact relays.

The systems utilize a high performance aspirator and software configurable flow monitoring circuitry. Air flow 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 dedicated fault relays.

### Programming & Diagnostics

The sensitivity thresholds for each of the three alarm levels, fan speed and flow sensitivity can be individually programmed. A USB interface provides a connection to a PC for system configuration. The ILS system can also be locally configured through an integrated programming interface.

### Features

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

### Listings/Approvals

Equipment Approvals:

- EN54-20 (VdS)
- CE EMC
- CPD
- EN54-20 Sensitivity (holes per pipe)
  - Class A - 3 holes
  - Class B - 6 holes
  - Class C - 18 holes

Factory Approvals:

- VdS

### Configuration Options & Detection Strategies

The ILS system is available with one inlet pipe (ILS-1) or two inlet pipes (ILS-2), and can be fitted with one or two detectors per system. The available options for the ILS-1 and ILS-2 systems are:

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

ILS-1 systems fitted with one spot (point) detector are capable of providing single area detection, but ILS-1 and ILS-2 systems fitted with two detectors can be configured for a number of detection strategies. The table below describes the possible detection strategies for ILS systems fitted with two spot (point) detectors.

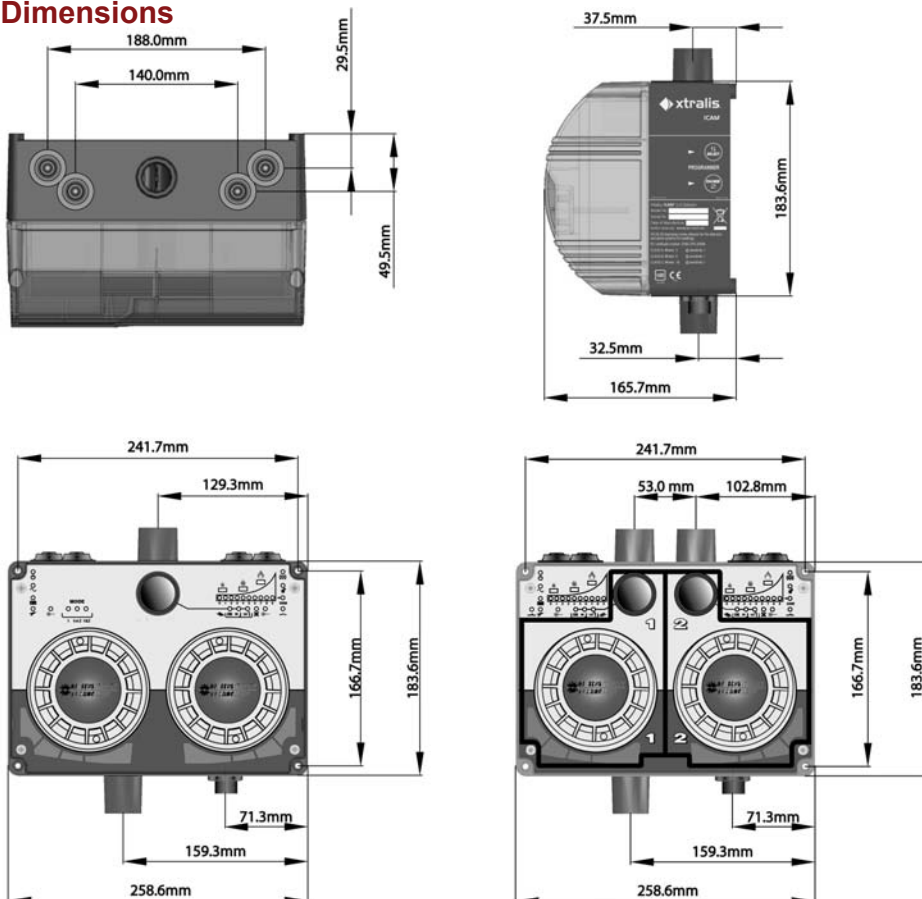
		ILS-1	ILS-2
Detection Strategy	Dual Addressable Areas		✓
	Redundancy *	✓ (OR)	
	Coincident / Double-Knock †*	✓ (AND)	✓ (AND)

\* These are software programmable modes for an ILS-1 system fitted with two detectors.

† Subject to local codes and standards.

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

### Dimensions



### Ordering Information

- |   |       |
|---|-------|
| Laser Air-sampling Smoke Detector with 1 inlet  | ILS-1 |
| Laser Air-sampling Smoke Detector with 2 inlets | ILS-2 |

### Specifications

#### Integrated detectors:

1 or 2 Laser spot (point) detectors

#### Supply Voltage:

24 VDC nominal (18 to 30 VDC)

#### 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 50 °C (14 to 122 °F)  
Humidity: 10 to 95% RH (non-condensing)

#### Inlet Pipe Size:

Outer Diameter: 25 mm (1 in.)  
Inner Diameter: 21 mm (0.8 in.)

#### Sampling Network:

Pipe Length: 100 m (328 ft.) per inlet

For VdS approved installations, please consult the manual

#### Sensitivity:

0.06 to 6.0 % obs/m  
(0.02 to 1.83 % obs/ft)

#### IP Rating:

IP65

#### Filtration:

Serviceable filter  
External filter optional

#### Flow Monitoring and Reporting:

High and Low adjustable

#### Fan Control:

10 programmable speeds

#### Relays:

Contacts rated at 1A @ 30 VDC, NO/NC

3 relays for ILS-1:

Action, Fire, Fault

6 relays for ILS-2:

Detector 1 - Action, Fire, Fault

Detector 2 - Action, Fire, Fault

#### Cable Termination:

Power Supply:

18 AWG min. (16 x 0.25 mm dia.)

Field Connections:

11 AWG max. (2.5 mm dia.)

USB:

Standard USB cable for Type B USB connector

www.xtralis.com

The Americas +1 781 740 2223 Asia +852 2916 8894 Australia and New Zealand +61 3 9936 7000  
Europe, Middle East & Africa +44 1442 242 330

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