Xtralis XAS Smoke Detectors

XAS-1-US & XAS-2-US





The Xtralis XAS Air-sampling Smoke Detection system provides a flexible detection solution to meet unique needs of challenging applications found in typical commercial and industrial sites. The XAS solution is well suited to installations where access to the monitored areas is restricted and provides tamper-proof and unobtrusive detection. The ability to mount the device outside the protected area makes it ideal for use in applications such as correctional facilities, transformer vaults, cable tunnels, elevator machine rooms and HVAC ducts.

How it Works

The XAS 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 XAS system is available with one inlet pipe (XAS-1) or two inlet pipes (XAS-2), and can be used with one or two detectors per system. A number of different points from a range of leading technology providers may be used.*

The systems utilize a high performance aspirator and programmable 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 monitoring system.

Detection Strategies

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

- single or dual addressable area detection
- redundant 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 XAS system is easily introduced onto the existing fire alarm control panel signaling circuit by installing equivalent detectors into the system*.

* Subject to XAS system approval for the installed spot (point) detector

Features

- Single or dual inlet fire detection
- Multiple piping options
- Multiple detection strategies
- 164 ft (50 m) max. per unit
- 50 ft (15 m) max. per flexible tube
- Microprocessor controlled
- High performance aspirator
- Integral display and programmer
- Field serviceable air filter
- Adjustable aspirator speed with airflow monitoring

Listings/Approvals

- UL-268
- UL-268A
- ULC-529

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Detector Configuration Options

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

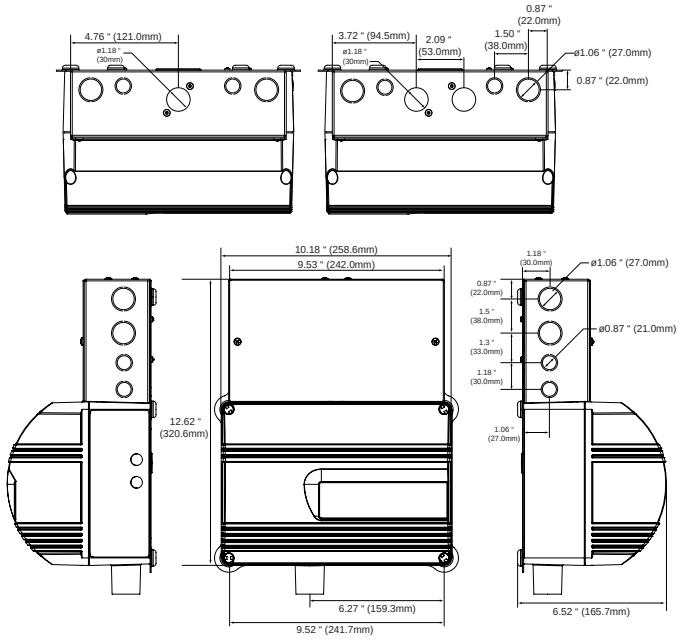
- XAS-1 system – one or two spot (point) detectors (shared inlet)
- XAS-2 system – two spot (point) detectors (dual inlet)

XAS-1 systems with one spot (point) detector are capable of providing single area detection, but XAS-1 and XAS-2 systems 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 installed into an XAS system.

		XAS-1	XAS-2
Two Detector Strategy	Dual Addressable Areas		✓
	Redundancy	✓ (OR)	✓ (OR)
	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	XAS-1-US
Air-sampling Smoke Detector with 2 inlets	XAS-2-US

Point detectors are ordered from their manufacturer/supplier; while baffles are ordered separately from Xtralis depending on the point detector type.

Specifications

Supported detectors:
- 1 or 2 analog addressable or conventional spot (point) detectors
- 4 in. mounting base (max)

Supply Voltage:
24 VDC nominal

Note that spot (point) detectors are powered from the Signaling Line Circuit (SLC) or Initiating Device Circuit (IDC).

Current:
350 mA (max)
In-Rush 680 mA

Dimensions (WHD):
10.2 in. x 12.6 in. x 6.5 in.
(259 mm x 321 mm x 166 mm)

Weight:
XAS-1: 7.27 lbs (3.3 kg)
XAS-2: 7.5 lbs (3.4 kg)

Operating Conditions:
Tested to:
14 to 131 °F (-10 to 55 °C)
Recommended Detector Ambient:
32 to 100 °F (0 to 38 °C)
Sampled Air:
4 to 140 °F (-20 to 60 °C)
Humidity:
10 to 95% RH (non-condensing)

Air Inlet Pipe:
Accepts both metric and American standard pipe sizes.
Metric: 25mm (1.05 in.)
American Pipe: ¾ in. I.D (21mm)
Flexible tubing: ¾ in.O.D (19mm)

Sampling Network:
Pipe Length: Up to 164 ft (50 m) total per device
Flexible Tube Length: Maximum 50 ft (15m)

IP Rating:
IP30 Wiring Enclosure
Detector Enclosure: IP65

Filtration:
Serviceable filter
External filter optional

Flow Monitoring and Reporting:
High and Low programmable flow limits

Aspirator:
Control: 10 programmable speeds
Pressure: 250 Pa

Relay outputs:
XAS-1: 1 fault relay output
XAS-2: 2 fault relay outputs

Field Wiring:
Screw Terminals
18 to 10 AWG (0.9 to 5.5 sq. mm) solid
20 to 12 AWG (0.6 to 3.5 sq. mm) stranded

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