# Axis AX UL Smoke Detector

The Axis AX UL Smoke Detector is our most advanced detector offering suitable for a wide range of applications. It uses Purelight® high-tech sensing technology that detects smoke particles entering the chamber and substantially reduces the possibility of false alarms.

**Operation**

The low profile design of the Axis AX Smoke Detector is sleek and evolutionary, with a 360º LED indicator which illuminates red when in alarm.

At the heart of the smoke sensor is Purelight® Sensing Technology which incorporates:

- Cone technology combined with a high-intensity infrared LED to provide stability and accurate sensitivity to smoke.
- A sophisticated dynamic algorithm, providing transient rejection and compensation for drift whilst maintaining accurate sensitivity.

The smoke chamber of the detector is a unique cone shape which serves to reduce any stray reflection. This ultra dark internal light chamber also contains a high-intensity infrared LED that is highly sensitive to smoke particles.

When smoke enters the chamber, infra-red light is scattered and registered by the photodiode and amplifier that are included in an application-specific integrated circuit (ASIC). This circuit ensures long term reliability, even in extreme conditions.

**System compatibility**

Axis AX detectors have been designed to operate on Discovery loops. This allows for Axis AX detectors and bases to operate on existing systems.

**Maintenance and service**

Axis AX detectors have been designed with a comprehensive set of features to support maintenance and service. Maintenance has to be done in accordance with all applicable standards. Clean the detector externally using a soft damp cloth.



## Features

- Built-in isolator
- Purelight® optical technology for enhanced smoke detection and false alarm management
- Drift compensation
- Backwards compatible with Discovery
- Base locking mechanism (grub screw)
- In-built self test
- XPERT card addressing

## Listings and Approvals

- Approved to UL268 7th edition, CSFM, ULC S529

**Please note:**This detector is a direct replacement for the 58000-65AEL Axis AX Smoke Detector.

## Specification

| | |
|---|---|
| Digital communication protocol | Discovery |
| Supply wiring | Two wire supply, polarity sensitive |
| Sensitivity | 1.2-2.1%/ft |
| Supply voltage (Vmin-Vmax) | 17-28 Vdc |
| Sampling frequency | Once per second |
| Modulation voltage | 5-9V peak to peak |
| Supervisory current | 500 µA |

| | |
|---|---|
| Switch-on surge current | 1.0 mA |
| Alarm/operated current, LED on | 4.0 mA |
| Status indicator | Alarm - Red<br>Fault - Flashing yellow<br>Isolate - Yellow<br>Poll - Flashing green |
| Additional remote LED current | 5A maximum |
| Product operating temperature | 32° F to 131° F (0° C to 55° C) |
| Effect of atmospheric pressure | None |
| Air velocity | 0-300 fpm |
| Humidity | 0% to 95% RH (no condensation or icing) |
| IP rating | IP44 |
| Weight | 2.93 ounces (83g) |
| Dimensions | 4" (100mm) diameter x 1.42" (36mm height)<br>1.88" (48 mm) height with XPERT Intelligent Mounting Base |
| Materials | Housing: White flame-retardant polycarbonate.<br>Terminals: Tin-plated stainless steel |

All data is supplied subject to change without notice. Specifications are typical at 24 V, 73° F and 50% RH unless otherwise stated.

**Isolated detector data**

| | |
|---|---|
| Maximum loop current (1c max; L1 in/out) | 1A |
| Maximum series resistance (Z c max; L1 in/out) | 100 mΩ |

## Order Codes and Options

| | |
|---|---|
| SA5150-650ADV | Axis AX UL Smoke Detector |
| SA5000-210ADV | Axis AX UL Base - 4" |
| SA5000-230ADV | Axis AX UL Base - 6" |

NB Built-in isolators for Axis AX Smoke and Multicriteria detectors only.

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