# Axis AX UL Heat Detector

The Axis AX UL Heat Detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature.



### Operation

In the Axis AX UL Heat Detector, the five response modes correspond to the five ‘classes’ as defined in UL 268. The classes in this standard correspond to different behaviour, each of which is designed to be suitable for a range of application temperatures. All modes incorporate ‘fixed temperature’ response, which is defined in the standard by the ‘static response temperature’.

### Electrical description

The Axis AX UL Heat Detector is designed to be connected to a two wire loop circuit carrying both data and a 17 V to 28 V dc supply. The detector is connected to the incoming and outgoing supply via terminals L1 and L2 in the mounting base. A remote LED indicator requiring not more than 4 mA at 5 V may be connected between the +R and -R terminals. An earth connection terminal is also provided.

### Remote test feature

The remote test feature is enabled from the fire control panel. On receipt of the command signal from the fire control panel, the detector is forced electrically into alarm. An analogue value of 85 is returned to the fire control panel to indicate that the detector is working correctly.

### Rejection of transient signals

Axis AX UL detectors are designed to give low sensitivity to very rapid changes in the sensor output, since these are unlikely to be caused by real fire conditions, resulting in fewer false alarms.

### Response modes

Axis AX UL Heat Detectors can be operated in any one of five UL approved response modes, which can be selected through the fire control panel. Each mode corresponds to a unique response behaviour, which is related to sensitivity to fire. Mode 1 gives a higher sensitivity to fire than Mode 5.

### Flashing LEDs

Axis AX UL Heat detectors have two integral LED indicators, which can be illuminated at any time by the fire control panel to indicate detectors in alarm. A flashing LED mode can also be programmed to activate each time a detector is polled.

## Features

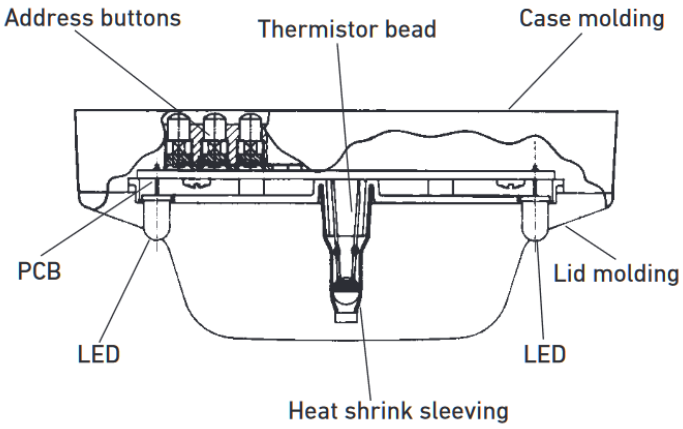
- Compatible with all devices from the Soteria UL range
- Electronic temperature sensing
- Alarm flag for fast alarm responding
- Easy installation
- Elegant design
- Unaffected by wind or atmospheric pressure
- Ideal for environments that are dirty or smoky under normal circumstances
- Well suited to warehouses, loading docks and parking garages

## Listings and Approvals

- Approved to UL521

**Please note:**This detector is a direct replacement for the 58000-450AEL Axis AX Heat Detector.

## Sectional view




## Specification

| | |
|---|---|
| Digital communication protocol | Discovery |
| Operating voltage (Vmin-Vmax) | 17-28 Vdc |
| Modulation voltage | 5-9V peak to peak |
| Supervisory current | 500 µA |
| Surge current | 1.0 mA |
| Alarm LED current | 3.5 mA |
| Additional remote LED current | 5A maximum |
| Operating temperature range | 32° F to 151° F |
| Heat element rating | 135° F to 210° F |
| Humidity | 0% to 95% RH (no condensation or icing) |
| Weight | 3.70 ounces |
| Dimensions | 3.93" diameter x 1.65" height |
| Materials | Housing: White flame-retardant polycarbonate.<br>Terminals: Tin-plated stainless steel |
| Spacing | Smooth ceiling 70 ft<br>Wall or partition 35 ft |

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

**Heat detector response modes**

| Mode | UL heat classification @55 counts alarm |
|---|---|
| 1 | 135ºF fixed temperature with rate of rise |
| 2 | 150ºF fixed temperature and rate of rise |
| 3 | 150ºF fixed temperature |
| 4 | 200ºF fixed temperature and rate of rise |
| 5 | 200ºF fixed temperature |

## Order Codes and Options

| | |
|---|---|
| SA5800-450ADV | Axis AX UL Heat Detector |
| SA5000-210ADV | Axis AX UL Base - 4" |
| SA5000-230ADV | Axis AX UL Base - 6" |
| SA5300-800 | Axis AX CO Sounder Base - 6" high frequency |
| SA5300-802 | Axis AX Sounder Base - 6" high frequency |
| SA5300-805 | Axis AX CO Sounder Base - 6" low frequency |
| SA5300-806 | Axis AX Sounder Base - 6" low frequency |

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