

Discovery / Soteria UL

Heat Detector



Product overview

Product	Discovery/Soteria UL Heat Detector
Part No.	SA5800-450
Digital Communication	Discovery and CoreProtocol® compatible

Approvals



Product information

The Discovery/Soteria UL Heat detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature.

- Compatible with all devices from the Soteria UL range
- Electronic temperature sensing
- Alarm flag for fast alarm responding
- Automatic addressing
- 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

Technical data



CAUTION: System compatibility
The Discovery/Soteria UL Heat Detector, Part No SA5800-450 should only be used with compatible fire control panels.

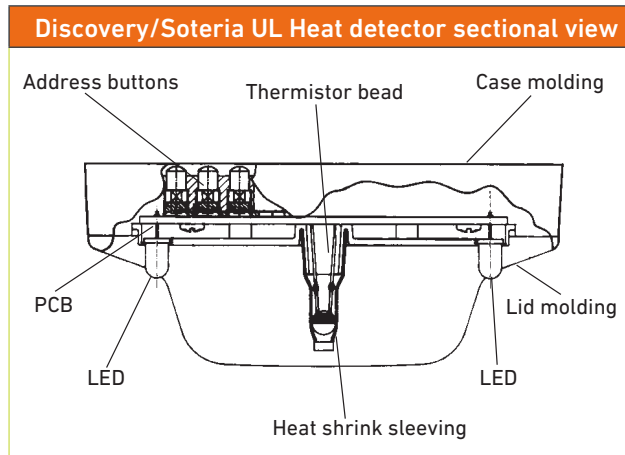
This detector is a direct replacement for the 58000-450 Discovery UL Heat Detector.

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

Sampling frequency	Continuous
Operating voltage	17 - 28 V dc
Modulation voltage	5 - 9 V peak to peak
Communication protocol	Discovery and CoreProtocol compatible
Supervisory current	500 µA
Surge current	1mA
Alarm LED current	3.5 mA
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)
Standards & approvals	UL521
Dimensions	3.93" diameter x 1.65" height
Weight	3.70 oz
Materials	Housing: White flame-retardant polycarbonate Terminals: Tin plated stainless steel
Test method	Hair dryer
Spacing	Smooth ceiling 70 ft to wall or partition 35 ft

Operation

In the Discovery/Soteria 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 Discovery/Soteria 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.

Features

Response modes

Discovery/Soteria 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.

Discovery/Soteria UL Heat detector response modes	
Mode	UL heat classification @ 55 counts alarm
1	135°F fixed temperature with rate of rise
2	150°F fixed temperature and rate of rise
3	150°F fixed temperature
4	200°F fixed temperature and rate of rise
5	200°F fixed temperature

Flashing LEDs

Discovery/Soteria 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.

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

Discovery/Soteria 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.

Compatible Bases

Part Number	Product Name
SA5000-210	Soteria UL Base - 4"
SA5000-230	Soteria UL Base - 6"
SA5300-800*	Soteria UL CO Sounder Base - 6" High Frequency
SA5300-802	Soteria UL Sounder Base - 6" High Frequency
SA5300-805*	Soteria UL CO Sounder Base - 6" Low Frequency
SA5300-806*	Soteria UL Sounder Base - 6" Low Frequency

*non-isolating bases

	Smoke	Multi-Criteria	Heat
For existing Discovery UL and new installations choose:	SA5150-650 Soteria UL Smoke Detector	SA5150-750 Soteria UL Multi-Criteria Detector (Smoke/Heat)	SA5800-450 Discovery/Soteria UL Heat Detector

Built-in isolators for Soteria UL Smoke and Soteria UL Multi-Criteria Detectors only.

This datasheet is to be used for marketing purposes only. All information on this datasheet is subject to change without notice. Technical information about installation can be found in the product installation guide which can be found on our website.