

Effective November, 2001

## Heat Detectors Series 600

**The Heat Detectors Series 600 are supplied with the following standard features:**

- Rate-of-Rise and Fixed Temperature
- One or Two-Circuit, Normally Open
- Easy Installation
- Low Profile
- Visual Indication
- Operation Testing

### Description

The Series 600 Heat Detector is attractive, durable and features combination rate-of-rise and fixed temperature operation. Heat detectors are available in 135°F and 200°F temperature ratings.

Rate-of-rise detects heat by quickly responding to a rapid temperature increase. Rate-of-rise units have a wide spacing allowance of 50-foot centers. See specification table for details.

Fixed temperature reacts to heat by responding to a specific temperature setting.

Series 600 Detectors use the same reliable pneumatic rate-of-rise element of former models, but offer added aesthetic appeal.

The pneumatic rate-of-rise element responds to a rapid rise in temperature, approximately 15°F. (8°C) per minute, by expansion of air within the sealed chamber faster than it can escape through a calibrated vent. The resultant increase in pressure depresses the diaphragm, causing the electrical contact to close the circuit.

The fixed temperature element uses a fusible alloy. When activated, the external heat collector drops away to provide quick visual confirmation that the element has operated.

The units protrude only 1-3/8 inch from the ceiling surface with a junction box mounting. They have pleasing contours and an all-white finish that conforms to ceiling aesthetics.

### Installation

Each detector includes a patented reversible mounting plate. In one position, it easily attaches to 3.25" or 4" octagonal box, or plaster ring.

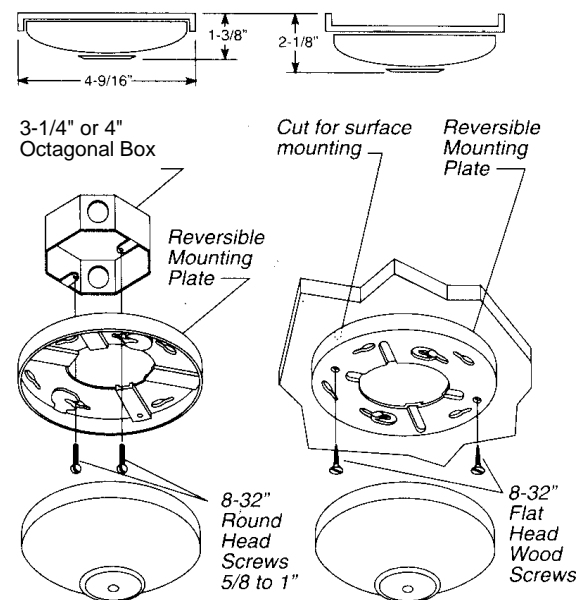
In reverse, the plate can be used for open wiring without a junction box. A 1/4" space between detector and mounting surface allows for wire connections. All mounting screws are concealed.

The detector attaches easily to the mounting plate with a push and twist motion. No tools are required.



**Junction Box Mounting**

**Ceiling Surface Mounting**



Mounting plate is molded of white self-extinguishing thermo-plastic rated at 221°F (105°C). The plate is extremely strong yet adapts to uneven mounting surfaces.

### Series 600 Testing Methods

Models 601/621 and 602/622 can be tested by the quick application of heat from any convenient source. A portable hair dryer is recommended. However, do not apply heat that exceeds the fixed temperature rating of the detector.

Models 603/623 and 604/624 cannot be tested. However, the fusible alloy element used is considered so reliable that testing is not necessary.

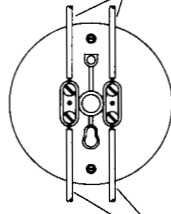
Model 601 and 621	Model 602 and 622	Model 603 and 623	Model 604 and 624
No Marking Model 601 (1 circuit) Model 621 (dua circuit)	Gray Ring Model 602 (1 circuit) Model 622 (dual circuit)	Gray Spot Model 603 (1 circuit) Model 623 (dual circuit)	Gray Ring and Dot Model 604 (1 circuit) Model 624 (dual circuit)
Rate-of-Rise and Fixed Temperature, 135°F (57°C)	Rate-of-Rise and Fixed Temperature, 200°F (94°C)	Fixed Temperature only, 135°F (57°C)	Fixed Temperature only, 200°F (94°C)
Applications: Normal temperature fluctuations and ceiling temperatures not exceeding 100°F (38°C)	Applications: Normal temperature fluctuations and ceiling temperatures exceeding 100°F (38°C) but not 150°F (66°C)	Applications: Unusually violent temperature fluctuations and ceiling temperatures not exceeding 100°F (38°C)	Applications: Unusually violent temperature fluctuations and ceiling temperatures exceeding 100°F (38°C) but not 150°F (66°C)
Maximum Spacing Allowance* - 50 x 50 ft. - UL 30 x 30 ft. - FM	Maximum Spacing Allowance* - 50 x 50 ft. - UL 30 x 30 ft. - FM	Maximum Spacing Allowance* - 25 x 25 ft. - UL 20 x 20 ft. - FM	Maximum Spacing Allowance* - 15 x 15 ft. - UL

\*Refer to National Fire Alarm Code Standard NFPA 72 for application requirements

## Screw Terminals

### Standard Single Circuit Detector

Wire from alarm panel or previous detector.



Wire connected to next detector or end of line resistor.

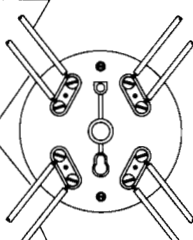
NOTE: All single circuit models come with one (1) normally open dry contact.

### Dual Circuit Detector

Used to send two independent signals.

Wire connected to next detector or end of line resistor.

Wire from alarm panel or previous detector.



Wire connected to next detector or end of line resistor.

NOTE: All dual circuit models come with one (2) normally open dry contacts.

## Important Special Notes

Application: Heat detectors should be used for property protection. Reliance should not be placed on heat detectors for Life Safety.

**CAUTION: When life safety is involved, smoke detectors MUST also be used. Detectors must not be painted.**

Battery Back-Up: Heat detectors should be electronically supervised with battery back-up at the panel.

The rate-of-rise mechanism may be subject to reduced sensitivity over time. Annual testing of the rate-of-rise mechanism is recommended.

## Electrical Ratings

6-125 Volts A.C., 3.0 Amps.  
6-28 Volts D.C., 1.0 Amps.  
125 Volts D.C., 0.3 Amps.  
250 Volts D.C., 0.1 Amps.

## Listings/Approvals

- Listed by Underwriters Laboratories (UL)
- Factory Mutual Approved (FM)
- California State Fire Marshal Approval (CSFM)
- City of New York (MEA) Listing No. 188-94-E
- Listed by Underwriters' Laboratories of Canada (ULC)

This literature is provided for informational purposes only. CHEMETRONICS assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to work correctly. If you need more information on this product, or if you have a particular problem or question, contact CHEMETRONICS, Ashland, MA; Telephone (800) 496-8383.

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