April 1, 1998

HD-600 Heat Detectors

Section: Conventional Initiating Devices

GENERAL

The **HD-600 Heat Detector** is attractive, durable, and features combination rate-of-rise and fixed-temperature detectors. Heat detectors are available in 135°F (57°C) and 200°F (94°C) temperature ratings.

Rate-of-rise elements detect heat by quickly responding to rapid temperature increase. HD-600 detectors use the same reliable pneumatic rate-of-rise element used in 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. HD-600 rate-of-rise units have a wide spacing allowance of 50-foot (15.24-meter) centers. See *Specifications* table (page 2) for details.

Fixed-temperature elements react to heat by responding to a specific temperature setting. 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" (34.925 mm) from the ceiling surface with a junction box mounting. They have pleasing contours and an all-white finish that conforms to ceiling aesthetics.

FEATURES

- · Rate-of-rise and fixed-temperature.
- One- or two-circuit, normally open.
- · Easy installation.
- · Low-profile design.
- · Visual indication.
- Operation testing.

INSTALLATION

Each detector includes a patented reversible mounting plate. In one position, it easily attaches to a 3-1/4" (82.55 mm) octagonal box or 4" (101.60 mm) junction box.

In reverse, the plate can be used for open wiring without a junction box. A 1/4" (6.35 mm) space between detector and mounting surface allows for wire connections. All mounting screws are concealed.

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

The mounting plate is molded of white self-extinguishing thermoplastic rated at 105°C. The plate is extremely strong, yet adapts to uneven mounting surfaces.





(except HD622)



California State Fire Marshal 7270-0075:168

F-800

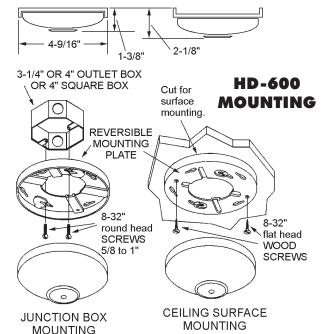


250-94-E



0N3A8.AY (HD621, HD601, HD602) 0F4A3.AY (HD603, HD604) 0F4A3.AY (HD622, HD623) 0F4A3.AY (HD624)





This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **Fire*Lite.** Phone: (203) 484-7161 FAX: (203) 484-7118



12 Clintonville Road, Northford, Connecticut 06472

ISO-9001

Engineering and Manufacturing Quality System Certified to International Standard ISO-9001



HD-600 SERIES TESTING METHODS

- Models HD-601/HD-621 and HD-602/HD-622 can be tested by the application of quick 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 HD-603/HD-623 and HD-604/HD-624 cannot be tested. However, the fusible alloy element is generally considered so reliable that testing is not necessary.

SPECIFICATIONS

| HD-601 & HD-621 | HD-602 & HD-622 | HD-603 & HD-623 | HD-604 & HD-624 |
|--|--|--|---|
| No marking. Model HD-601 (one circuit) Model HD-621 (dual circuit) | Gray ring. Model HD-602 (one circuit) Model HD-622 (dual circuit) | Gray spot. Model HD-603 (one circuit) Model HD-623 (dual circuit) | Black dot on white. Model HD-604 (one circuit) Model HD-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). |
| Application: normal temperature fluctuations and ceiling temperatures not exceeding 100°F (38°C). | Application: normal temperature fluctuations and ceiling temperatures exceeding 100°F (38°C) but not 150°F (66°C). | Application: unusually violent temperature fluctuations and ceiling temperatures not exceeding 100°F (38°C). | Application: unusually violent temperature fluctuations and ceiling temperatures exceeding 100°F (38°C) but not 150°F (66°C). |
| Maximum spacing allowance* UL: 50 ft. x 50 ft. (15.24 x 15.24 meters). FM: 30 ft. x 30 ft. (9.144 x 9.144 meters). | Maximum spacing allowance* UL: 50 ft. x 50 ft. (15.24 x 15.24 meters). FM: 30 ft. x 30 ft. (9.144 x 9.144 meters). | Maximum spacing allowance* UL: 25 ft. x 25 ft. (7.62 x 7.62 meters). FM: 20 ft. x 20 ft. (6.096 x 6.096 meters). | Maximum spacing allowance* UL & FM: 15 ft. x 15 ft. (4.572 x 4.572 meters). |
| *Refer to NFPA for application requirements. | | | |

SCREW TERMINALS

Standard Single-Circuit Detector

Wire from alarm panel or previous detector.

Wire from alarm panel or previous detector.

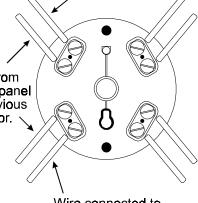
Wire connected to next detector or end-of-line resistor.

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 connected to next detector or end-of-line resistor.

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

NOTES

Application: Heat detectors should be used for property protection. Reliance should not be placed solely on heat detectors for life safety. When life safety is involved, smoke detectors **MUST** also be used. Detectors must **NOT** be painted.

Battery backup: Heat detectors should be electronically supervised with battery backup at the panel.

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

ELECTRICAL RATINGS

- 6-125 Volts AC, 3.0 Amp.
- 6-28 Volts DC, 1.0 Amp.
- 125 Volts DC, 0.3 Amp.
- 250 Volts DC, 0.1 Amp.