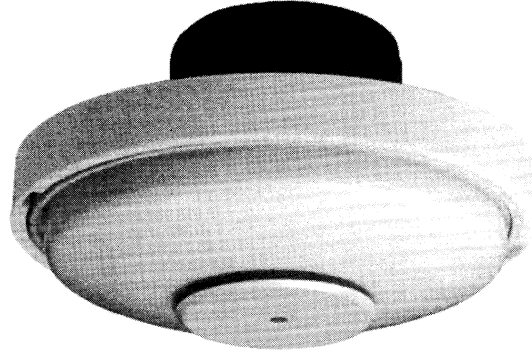


# Automatic Heat Detector Low Profile



## Features

- Dual Simultaneous Control of Two Independently Powered Circuits
- Unmistakable Visual Indication
- Ultrasensitive
- Trouble Free Service - No Field Maintenance Required
- Low Profile - Projects 1<sup>3</sup>/<sub>8</sub>" Below Ceiling
- High Strength, Corrosion Resistant Materials
- Fast, Easy Installation
- U.L. Listed
- All Contacts Normally Open

## Application

Available as dual action, combination of rate of rise and fixed temperature principles; or as a fixed temperature unit only. The Spot Fire Lowecator is an ultrasensitive electrothermostatic device used in automatic fire alarm systems for the quick, positive detection of fire.

## Operation

### (A) Rate of Rise Principle

Air expands as it heats and contracts as it cools. For normal (room) temperature fluctuations, expansion and contraction of air in the Lowecator's air chamber is automatically compensated by the breathing action of the vent. When a fire occurs, however, air temperatures rise very rapidly. Air in the chamber then expands at a higher rate than that at which it can escape through the vent. This creates a pressure that distends the diaphragm, thereby closing the electrical contacts.

The rate of rise element is not related to a determined temperature level, but is responsive immediately if the temperature rises. An important feature of the rate of rise element is its repeated self-restoration - even after it has been activated many times.

### (B) Fixed Temperature Principle

The fixed temperature element is totally independent of that of the rate of rise principle. When the temperature rise in a room exceeds a fixed temperature, an external heat collector drops away when a fusible alloy fuses.

## Testing the Spot Fire Lowecator





Models 50414/50418 and 50415/50419 can be tested by application of quick heat from any convenient source. Recommended is a portable hair dryer. Models 50417/50421 cannot be tested.

## Installation

A reversible mounting plate is supplied with each Detector. In one position, it attaches to a 4" octagon junction box, a 3<sup>1</sup>/<sub>4</sub>" octagon box, or a plaster ring. In the reverse position, it can be used for open wiring without junction boxes, and provides an extra <sup>1</sup>/<sub>4</sub>" of space between Detector and mounting surface for wire connections. In either position, all mounting screws are concealed.

The Detector attaches to the mounting plate with a simple push and twist motion. It can be detached with a reverse motion, without the use of tools.

The mounting plate is molded of white self-extinguishing thermoplastic rated at 105° C. It is extremely strong, yet resilient enough to adapt to uneven mounting surfaces without cracking.

1-Circuit Model	50414	50415	50416	50417
2-Circuit Model	50418	50419	50420	50421
Description	Rate of Rise and Fixed Temperature, 135°F.	Rate of Rise and Fixed Temperature, 200°F.	Fixed Temperature Only, 135°F.	Fixed Temperature Only, 200°F.
Use	Where temperature fluctuations are normal, and ceiling temperatures do not exceed 100°F.	Where temperature fluctuations are normal, and ceiling temperatures exceed 100° but do not exceed 150°F.	Where temperature fluctuations may be unusually violent, and ceiling temperatures do not exceed 100°F.	Where temperature fluctuations may be unusually violent, and ceiling temperatures exceed 100° but do not exceed 150°F.
U.L. Maximum Spacing Allowance	50 x 50 ft.	50 x 50 ft.	25 x 25 ft.	25 x 25 ft.
Identification on Heat Collector	None 	Gray Ring 	Gray Spot 	Gray Ring & Spot 

**Electrical Ratings (Maximum Permissible Current)**

A/C Circuit Voltage	AMP.	D/C Circuit Voltage	AMP.
6-125 VAC	3.0	6-28 VDC	1.00
		125 VDC	0.3
		250 VDC	0.1

**STARGUARD AUTOMATIC FIRE DETECTOR**

**...Extremely Sensitive and reliable over a long service life**

The STARGUARD Automatic Fire Detector... a fixed temperature, open contact unit, is UL listed and is available in one or two circuits. It is equipped with an inexpensive, replaceable fusible alloy element which eliminates the necessity of installing a complete new detector after operation. The expended element is simply removed and replaced without the use of any tools...and is easily identified, as fusing of the alloy exposes the black tip of the contact assembly plunger.

The single-circuit STARGUARD may be surface mounted for exposed wiring, or may be mounted on a 3" or 4" junction box using adaptor plate 48573.

Two circuit STARGUARD units are for junction box mounting only and furnished with an appropriate mounting plate.

UL listing requires that distance between these detectors on smooth ceilings is not to exceed 30 feet; distance from side wall or partition not to exceed 15 feet (approximately 900 square feet coverage).

**CONTACT RATING:**

- 6 amps at 6-125 volts A.C.
- 3 amps at 6-125 volts D.C.
- 1 amp at 125 volts D.C.
- .3 amps at 250 volts D.C.

**ORDERING INFORMATION:**

**Detector**

Model	Model	Description
48567	A	One Circuit, 135 de. rating
48568	A	One Circuit, 200 de. rating
48569	AT	Two Circuit, 135 de. rating
48570	AT	Two Circuit, 200 de. rating

**Parts**

Model	Model	Description
48571	AHC	Replacement element 135 de.
48572	AHC	Replacement element 200 de.
48573	ATA	Adaptor plate, cream color plastic, for mounting Model A one circuit detectors on 3" or 4" octagon box or on plaster ring. Includes two nickel plated screws.



Specifications and wiring information are provided for information only and are believed to be accurate. However, Gamewell assumes no responsibility for their use. Specifications are subject to change without notice; installation and wiring instructions shipped with the product should always be used for actual installation.

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Data and design subject to change. Supply subject to availability GW 7/99 Revised Printed in U.S.A.

UL, CSFM