Overview

The GE Security 280B series of fire alarm Heat Detectors provide high quality, reliability, and the ultimate in design and decor. The low silhouette and pure white finish blends with most ceiling styles to provide an inconspicuous unit.

These Heat Detectors are available with 135°F (57°C) or 194°F (90°C) ratings, for fixed temperature, or combination rate-of-rise and fixed temperature operation. All GE Security 280B series models are single pole with normally open contacts.

Standard Features

- ULC Listed for 50 ft. (15.2m) Spacing
- Single Pole - Normally Open Contact
- Low Profile
- Pure White Finish
- Mounting Flexibility with Wire Terminals
- Easy Twist-on Installation
- Positive Alarm Indication - for Fixed Temperature Element

Operation

RATE-OF-RISE: A temperature increase at the detector of 15°F (9°C) or more per minute activates the rate-of-rise feature. This closes the contacts in the detector to transmit the alarm condition to the fire alarm control panel. When the rate-of-rise element alone has been activated, the detector is self-restoring. Refer to specification table for applicable models.

FIXED TEMPERATURE: If the temperature of the center disk rises to the detector's rated temperature, the fixed temperature element activates. This closes contacts in the detector and transmits the alarm condition to the fire alarm control panel. The fixed temperature element is non-restorable and, when activated, the detector must be replaced. The need for replacement is indicated when the center disk has fallen free from the detector. Refer to specification table for applicable models.

Heat Detectors

Rate-of-Rise and/or Fixed Temperature
280B Series

ULC-S530

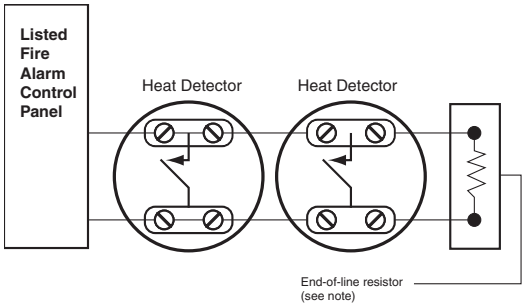
FM
Class 3210

Application Information

Heat detectors are most suitable for environments where rapid fire development can be expected.

When selecting the location of the ceiling for the heat detector, do not locate in direct path of hot or cold air flow.

Wiring



NOTE:
REFER TO WIRING DIAGRAMS PROVIDED WITH CONTROL PANEL FOR:
(1) PROPER PANEL CONNECTIONS, AND
(2) PROPER END-OF-LINE RESISTOR VALUE

Use For Property Protection Only.

1. DANGER - This device does not protect life against fire and smoke. In most fires, hazardous levels of smoke, heat and toxic gases can build up before a heat detector would initiate an alarm. Independent studies indicate that heat detectors should only be used when property protection alone is involved. In cases where life safety is a factor, the use of smoke detectors is recommended.

The intended use of the 280B Series Heat Detector is to provide one source of information that is supplemental to smoke detection to increase the probability that an early warning will be provided so that property can be safeguarded. Heat detectors do not always detect fires because the fire may be a slow smoldering, low heat type (producing smoke) or because they may not be near where the fire occurs, or because the heat of the fire may bypass them. This detector will not detect oxygen levels, smoke, toxic gases, or flames. Accordingly, this device should only be used as a part of a broadly based program of fire safety which would include a variety of sources of information on heat and smoke levels, visual sighting of the fire, extinguishment systems, and other safety measures.

If they are spaced in accordance with the directions in the Detector Specifications table, they can contribute, within an overall fire safety program, to reducing the risk of avoidable property losses. Under no circumstances should these devices be relied on as the sole measure to ensure fire safety. Danger will result if these devices are relied on to any degree for the protection of human life.

2. DANGER - This device does not contain a built-in signal. Alarm signals can only be generated by interconnection with separately installed signalling devices.

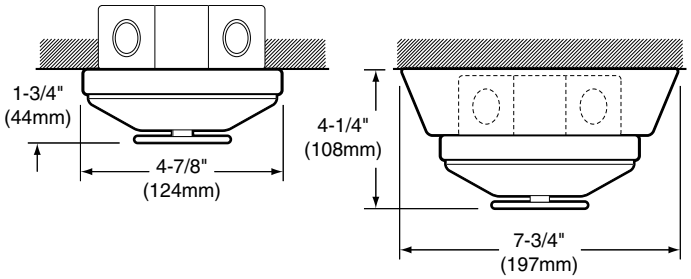
3. DANGER - This device will not operate without electrical power, and fires often cause cutoffs of electrical power. This device does not contain a battery backup power supply. If the electrical circuit feeding the device is cut, or is not providing power for any reason, this device will not detect heat or provide any warning of a possible fire, nor will it provide any warning that it is not functioning.

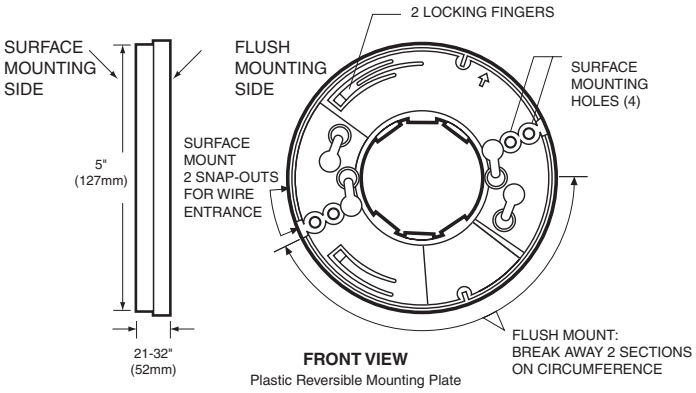
4. DANGER - The rate-of-rise feature on the 280B Series Heat Detector is subject to failure over time. The rate-of-rise feature should be tested by a qualified fire protection specialist annually to ensure that it is in working order.

Mounting

The GE Security 280B series Heat Detector is supplied with a white plastic mounting plate. The detector installs directly to a standard North American 3-1/2" or 4" octagonal box. When mounting to a surface mounted octagon box (1-1/2" deep maximum) the 6253 Skirt can be used as a decorative cover. A 6252 Surface Trim Ring is used to adapt the detector to fit a standard North American 4" square box.

When the mounting plate is fixed to the electrical box a simple twist will lock the detector in place. The detector can be removed using a screwdriver to release the tamper-resistant locking finger. This helps prevent unauthorized removal.





Specifications

Catalogue Number	281B-PL	282B-PL	283B-PL	284B-PL
ULC Temperature Rating	135°F (57°C)	194°F (90°C)	135°F (57°C)	194°F (90°C)
ULC Maximum Ambient Ceiling Temp. Rating	100°F (38°C)	150°F (66°C)	100°F (38°C)	150°F (66°C)
Detector Operation	Fixed Temperature and Rate-of-Rise		Fixed Temperature Only	
ULC Recommended Coverage	2,500 ft2 (232m2) - see note A			
ULC Recommended Spacing	50 ft (15.2m) - see note C			
ULC Maximum Distance from Wall	25 ft (7.6m) - see note B			
Contacts - Rating	Single Pole Normally Open 3.0 Amps at 6 to 125VAC 1.0 Amps at 6 to 28Vdc 0.3 Amps at 125Vdc 0.1 Amps at 250Vdc			
Operating Environment	Indoor - dry			

Note A - Maximum detector coverage has been determined by ULC to provide detection time equal to sprinkler devices spaced at 10 ft. (3m) intervals on a smooth ceiling 15 ft. 9 in. (4.8m) high. Higher ceilings can adversely affect detection time. In some instances, earlier detection time may be obtained by reducing the spacing between the detectors. Refer to the latest edition of CAN/ULC-S524, Standard for the Installation of Fire Alarm Systems, section on heat detectors.

Note B - Maximum distance shown is from any wall partion or ceiling projection extending down more than 12 inches (305mm).

Note C - FM rates this detector at 30 ft. (9.14m) spacing. This is the maximum FM rating available.

Ordering Information

Catalogue Number	Description	Ship Wt.
281B-PL	Heat Detector, 135°F (57°C), Combination Rate-of-Rise and Fixed Temperature	0.5 kg
282B-PL	Heat Detector, 194°F (90°C), Combination Rate-of-Rise and Fixed Temperature	0.5 kg
283B-PL	Heat Detector, 135°F (57°C), Fixed Temperature Only	0.5 kg
284B-PL	Heat Detector, 194°F (90°C), Fixed Temperature Only	0.5 kg
Detector Accessories		
6252	Surface Trim Ring	0.1 kg
6253	Decorative Mounting Skirt	0.1 kg
6259	Detector Removal Tool	0.1 kg
280A-MPL	Optional Metal Mounting Plate	0.1 kg

GE
Security

U.S.
T 888-378-2329
F 866-503-3996

Canada
T 519 376 2430
F 519 376 7258

Asia
T 852 2907 8108
F 852 2142 5063

Australia
T 61 3 9259 4700
F 61 3 9259 4799

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