

# 4451HT

## Plug-in 190°F

### Thermal Detector



#### Model

4451HT  
4451HTA



#### Product Overview

**190°F (88°C) fixed temperature response**

**Sealed against back pressure**

**Low standby current**

**Built-in tamper-resistant feature**

**Flame retardant Noryl plastic**

**360° field viewing angle of the visual alarm LEDs**

**Easy plug-in of the head to base**

**SEMS screws for easy wiring**

**UL listed for 50 ft. spacing**

**3-year warranty**

The 4451HT fixed intermediate temperature thermal detector is designed to meet the stringent performance requirements of industrial and municipal fire detection/ alarm systems.

The 4451HT thermal detector contains a unique dual thermistor sensing circuit to provide both maximum performance and solid state reliability. An RA400Z remote LED annunciator is available as an optional accessory.



S2101



7270-1209:105



3011446



326-94-E

## Specifications

### Operating Voltage

Mounting base dependent  
(see chart below)

### Standby Current

100 microamps

### Weight

5 ounces (150 g)

### Dimensions

Diameter: 4.1 inches (104 mm)  
Height: 2.1 inches (53 mm)

### Construction

Flame retardant noryl plastic

### Operating Temperature

32° to 150°F (0° to 66°C)

### Humidity Range

10% to 93% RH noncondensing

### Alarm Point

190°F (88° C)

### Wiring

12 to 18 gauge, twisted pair recommended

### Smoke Detector Spacing

For detectors on smooth ceilings (as defined in NFPA 72), spacing of 50 feet (2500 sq. ft.) may be used. Other spacing may be used depending on ceiling height, high air movements, and other conditions or response requirements.

## Mounting Base Selection Guide

Base Model No.	Loop Type	Current Limit Resistor	Alarm Contact Type	Nominal Voltage	Current Draw on Alarm (mA)
B401B	2-wire*	No	—	24 VDC <sup>‡</sup>	10–100**
B401BR	2-wire*	Yes	—	24 VDC <sup>‡</sup>	22–62
B402B	4-wire	Yes	Form A & C	24 VDC	14–39
B404B	4-wire	Yes	Form A & C – Supy.	120 VAC	75 mA AC Max.
B406B	2-wire*	No	Form C	24 VDC	12–100**
B401 <sup>†</sup>	2-wire*	No	—	24 VDC <sup>‡</sup>	10–100**
B401R <sup>†</sup>	2-wire*	Yes	—	24 VDC <sup>‡</sup>	18–62

\*Functionality contingent on panel compatibility. \*\*Must be limited by control panel. †Flangeless base

‡Although B401B and B401 bases are capable of 12/24 VDC operation, they cannot be used with the 4451HT in 12V applications.

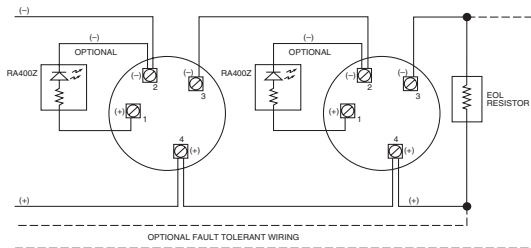
Relay Contact Ratings: Resistive or Inductive (60% power factor) load.

Form A: 2.0A at 30VAC/DC

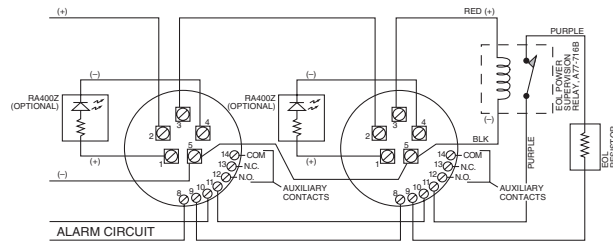
Form C: 0.6A at 110VDC, 2.0A at 30VDC

1.0A at 125VAC, 2.0A at 30VAC

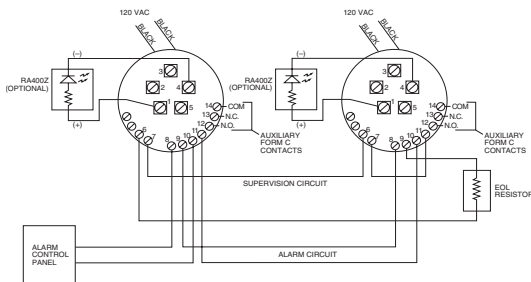
## Wiring Guide



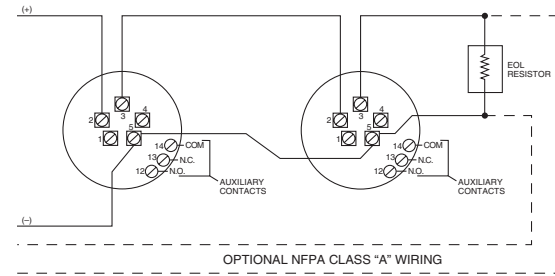
B401B Wiring Diagram



B402B Wiring Diagram



B404B Wiring Diagram



B406B Wiring Diagram

## Ordering Information

Part No.	Description
4451HT	Fixed temperature thermal detector with alarm point at 190°F (88°C). Must be mounted to one of the B40X Series bases listed above (order separately).

Part No.	Description
4451HTA	Same as above, Canadian model
RA400Z	Remote Annunciator for 2- or 4-wire systems, 3–32V. Use with most 400 Series plug-in detector bases. Fits standard U.S. single gang electrical box.
SMK400	Surface Mounting Kit. Provides for entry of surface wiring conduit. Use with B401 or B401R mounting bases only.

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