

4451HT Plug-in 190°F Thermal Detector



Model

4451HT
4451HTA



Product Overview

Dual solid-state thermistor sensing
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.



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

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†	10–100**
B401BR	2-wire*	Yes	—	24 VDC†	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†	2-wire*	No	—	24 VDC†	10–100**
B401R†	2-wire*	Yes	—	24 VDC†	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.

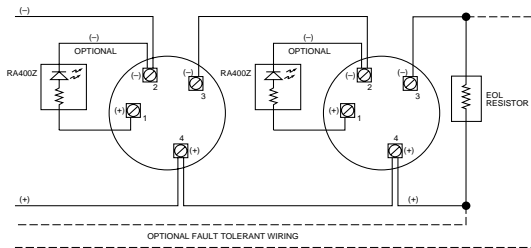
Relay Contact Ratings: Resistive or Inductive (60% power factor) load.

Form A: 2.0A at 30VAC/DC

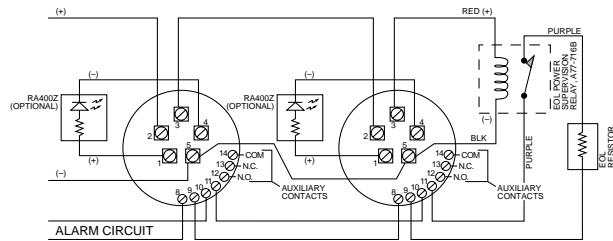
Form C: 0.6A at 110VDC, 2.0A at 30VDC

1.0A at 125VAC, 2.0A at 30VAC

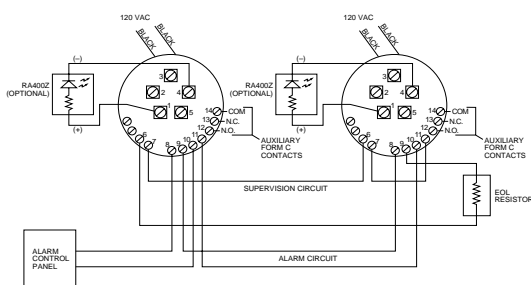
Wiring Guide



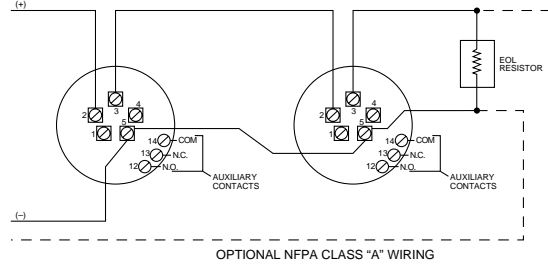
B401B Wiring Diagram



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.

System Sensor Sales and Service

System Sensor Headquarters

3825 Ohio Avenue
St. Charles, IL 60174
Ph: 800-SENSOR2
Fx: 630/377-6495
Documents On Demand:
1-800-736-7672 x3
Web: www.systemsensor.com

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Fx: 011.44.1403.276501

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Fx: 011.91.11.567.6815