

TC806B1076, TC806B1084 Photoelectric, TC807B1059 Low Profile, Ionization Intelligent Smoke Sensors

SPECIFICATION DATA



FEATURES

- Sleek, low profile design.
- Early detection of fire conditions.
- Direct-dial decade switches for easy address entry.
- Continuous monitoring of sensor sensitivity.
- Electronics conformal-coated to resist corrosion.
- Optional tamper-resistant mounting.
- Sensor heads easily plug into common mounting base.
- Dual LEDs provide 360-degree viewing.
- Local test feature.
- Compatible with Honeywell CLIP and FlashScan intelligent loop transmission.

APPLICATION

The TC806B1076, TC806B1084 Photoelectric Smoke Sensors and TC807B1059 Ionization Smoke Sensor are intelligent detection devices that provide two-way communication with the Honeywell fire alarm systems. The fire alarm panel loop controller uses a proprietary communication protocol containing both digital and analog signals that allow each sensor to communicate its individual address, sensor type (such as photoelectric or ionization) and an analog value. The panel analyzes the analog signal to measure the sensitivity of each sensor and to determine its status: alarm, prealarm, normal and trouble.

The TC806B Photoelectric Smoke Sensor has an optical sensing chamber and uses the light-scattering principle. The TC806B with Thermal Smoke Sensor also includes a dual 135°F (57°C) fixed temperature thermal sensing element. The TC807B uses a dual, unipolar ionization chamber.

These sensors provide stability and fast response to a broad range of fire conditions. The address for each sensor is set via two direct-dial decade switches. Dual LEDs on the sensors provide 360-degree visual indication. A common mounting base accommodates the TC806B or TC807B.

A total of 99 addresses in the Conventional Loop Interface Protocol (CLIP) mode are supported. Control panels that support FlashScan can use up to 159 detectors on a loop.

SPECIFICATIONS

Models:

TC806B1076 Photoelectric Smoke Sensor.
TC806B1084 Photoelectric with Thermal Smoke Sensor.
TC807B1059 Ionization Smoke Sensor.

Electrical Ratings:

Voltage Range: 15 Vdc to 32 Vdc, peak.
Standby Current: 300 μ A at 24 Vdc (one communication every 5 seconds with LED blink enabled).
LED Current: 6.5 mA at 24 Vdc.

Temperature Ratings:

Ion/Photo: 32°F to 120°F (0°C to 49°C).
Photo with thermal: 32°F to 100°F (0°C to 38°C).

Humidity Ratings: 10% to 93% RH, noncondensing.

Velocity Ratings:

TC806B: 4000 ft/min.
TC807B: 1200 ft/min. constant airflow.

Thermal Sensor Ratings (TC806B1084 only): Photo with thermal: 135°F (57°C) fixed.

Sensor Placement: Honeywell recommends spacing sensors in compliance with NFPA 72. In low air flow applications with smooth ceilings, space sensors 30 ft apart. For specific information regarding sensor spacing, placement, and special applications, refer to NFPA 72.



Nominal Sensitivity:

TC806B1076, TC806B1084: 1.65%/ft obscuration.
 TC807B1059: 1.06%/ft obscuration.

Indicators and Switches: Two LEDs on opposite sides of sensor head for 360-degree viewing angle. LEDs blink for normal operation and are latched on for alarm condition. As an option, normal blinking can be suppressed for use in a sleeping area. Two decade switches for setting sensor address.

Testing: Built-in magnetic reed switch for testing with magnet. This device must be routinely tested in accordance with NFPA 72 and AHJ requirements.

Shipping Weight:

TC806B1076, TC806B1084: 5.2 oz (147g).
 TC807B1059: 3.8 oz (108g).

Lamp Life: LED rated at 40 years.

Construction: Off-white plastic.

Pressure Rating (TC807B1059 only): 10 in./Hg maximum.

14507371 Base

Model: 14507371-001: Mounts on 4 in. square x 1-1/2 in. deep electrical box or mounts on 3 in. or 4 in. octagonal x 1-1/2 in. deep electrical box (for domestic use).

NOTE: The TC806B and TC807B can be used with Honeywell Intelligent Sensor Bases including the B501BH Horn Base, B501BHT Temporal Tone Sounder Base, B224RB Relay Base and B224BI Isolator Base. See Installation Instructions for use of Low-Profile Sensors with other Bases.

Mounting: Surface mounted on ceiling or wall.

Dimensions: See Fig. 1.

Wiring: See Fig. 2 and the installation instructions shipped with the product.

Approvals: UL, FM, CSFM.

Additional Equipment:

Optional magnet for local testing of individual sensors.
 RA400Z Remote Annunciator.

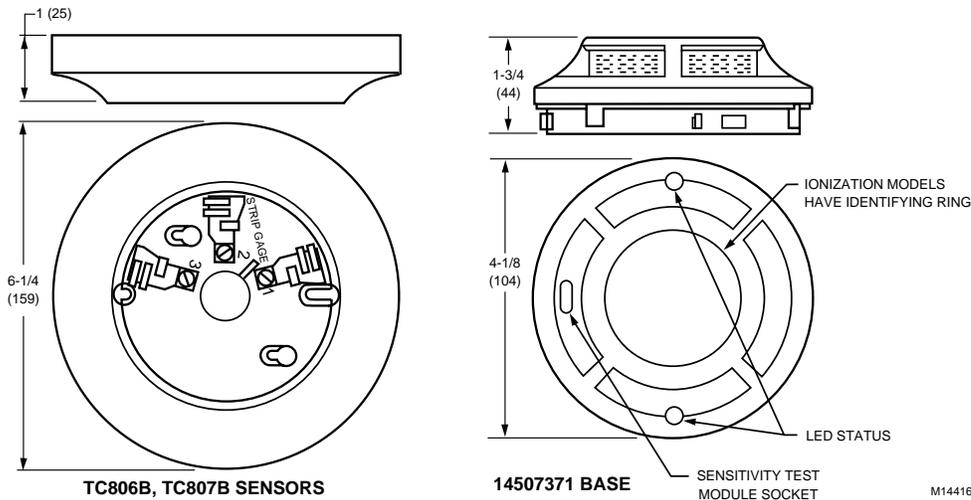


Fig. 1. TC806B1076, TC806B1084, TC807B1059 Sensors, 14507371 Base dimensions in in. (mm).

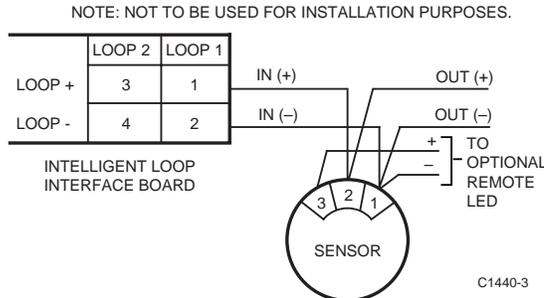


Fig. 2. Wiring for 14507371-001 Base.

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