

## TC844A Filtrex™ Intelligent Photo Smoke Sensor/14507371-008 Plug-In Detector Base

### SPECIFICATION DATA



### FEATURES

#### TC844A:

- High density Filtrex™ filter eliminates the need for sensor cleanings.
- Filtrex™ filter self-monitors clogs and reports a trouble condition at the panel when replacement is needed.
- Two sensor LEDs provide status indication at the control panel.
- Provides rotary-decade switches to set sensor address.
- Addressable-analog sensor transmits analog representation of smoke density to the control panel.

#### 14507371-008:

- Mounts directly to electrical box, with or without plaster ring.
- Tamper resistant—tool required for base removal.

### APPLICATION

The Filtrex™ Smoke Sensor is a specially enclosed intelligent photoelectric smoke detector that is intended for use in environmental conditions where dust and other airborne particulates are present at elevated levels. These elevated levels tend to cause false alarms and high maintenance in standard smoke sensors. Filtrex™ provides a protective enclosure for a photoelectric smoke sensor chamber and allows smoke detection in areas where heat detection is the only practical alternative for fire sensing.

Filtrex™ uses a small air intake fan and a high density replaceable filter. Air and smoke are drawn into a photoelectric sensing chamber while airborne particulate and water mist are removed. The addressable-analog sensor transmits an analog representation of smoke density over a communication line to a control panel. Rotary-decade switches are provided for setting the sensor address. Two LEDs on the sensor are controlled by the panel to indicate sensor status.

The TC844A requires the 14507371-008 Plug-In Detector Base. The base mounts directly to 3-1/2 in. and 4 in. octagon and 4 in. square electrical boxes, with or without a plaster ring.

### SPECIFICATIONS

#### TC844A:

##### Electrical Ratings:

Operating Voltage: 15 to 32 Vdc.

Detector Current: 230  $\mu$ A at 24 Vdc (without communications); 285  $\mu$ A at 24 Vdc (one communication every five seconds with LED enabled).

Auxiliary Power Supply Voltage: 15 to 30 Vdc filtered, Ripple voltage may not drop below 15V.

Auxiliary Power Supply Current:

Peak: 123 mA maximum.

Average: 27 mA maximum.

Air Intake: 6 mA standby; 60 mA when checking for smoke (five seconds on, 30 seconds off); 80 mA when checking for proper airflow (15 seconds on, every four hours).

**Temperature Ratings:** 32°F to 122°F (0°C to 50°C).

**Humidity Ratings:** 10% to 93% RH, non-condensing.

**Maximum Air Velocity:** 300 ft/min.

**Filter:** Removes particulate.



**Nominal Sensitivity:** 1.63%/ft obscuration.

**Dimensions:** 2-7/8 in. (43 mm) high with 6-1/8 in. (155 mm) diameter (installed with 14507371-008 base); 4 in. (102 mm) installed with SSDB524FTXE Base (Europe).

**Weight:** 7.3 oz (207g).

**Mounting Base:** Requires 14507371-008 Plug-In Detector Base (US); SSDB524FTXE (Europe).

**Wiring:** See Fig. 1.

**NOTE:** All wiring must be installed in compliance with the National Electrical Code, all applicable local codes and any special requirements of the local authority having jurisdiction, using the proper wiring sizes. The conductors used to connect smoke sensors to control panels and accessory devices should be color-coded to reduce wiring errors. Improper connections can prevent a system from responding properly in the event of a fire.

**Approvals:** UL Listed.

## 14507371-008:

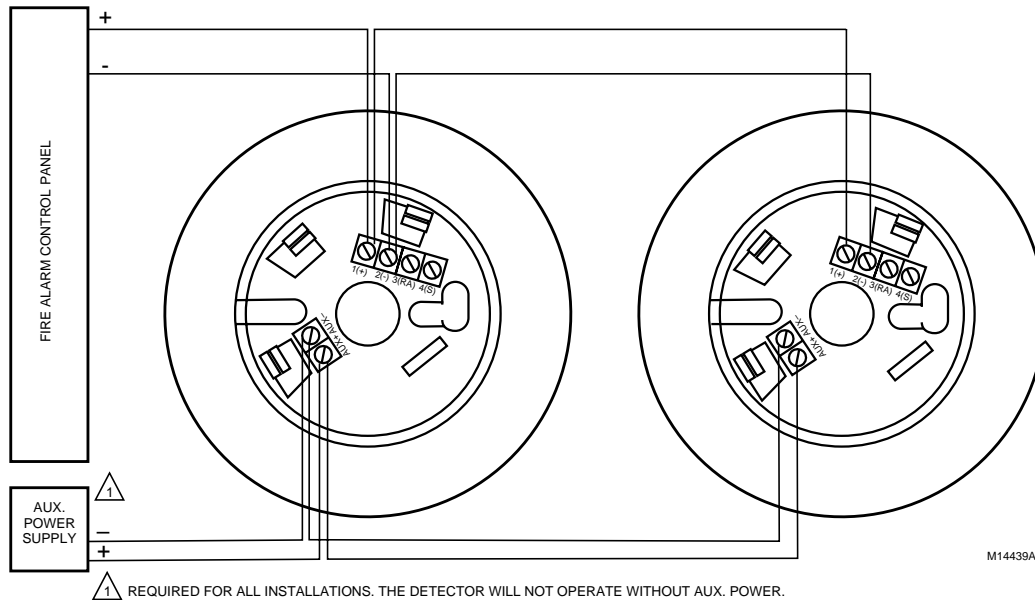
**Temperature Ratings:** 32°F to 122°F (0°C to 50°C).

**Humidity Ratings:** 10% to 93% RH, non-condensing.

**Dimensions:** 1-1/4 in. (31 mm) high with 6-1/8 in. (155 mm) diameter.

**Mounting:** 4-in. square electrical box with or without plaster ring, minimum depth 1-1/2 in. (13 mm); 3-1/2 in. octagon electrical box, minimum depth 1-1/2 in. (13 mm); 3-1/2 in. octagon box, minimum depth 1-1/2 in. (13 mm).

**Additional Equipment:** SSDRA400Z Remote Annunciator.



**Fig. 1. Typical wiring diagram.**

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