



Product

2WTA-B Smoke Detector

Architectural/Engineering Specifications

Smoke detector shall be a System Sensor i3 Series model number 2WTA-B, listed to Underwriters Laboratories UL 268 for Fire Protection Signaling Systems. The detector shall be a combination photoelectric/thermal equipped with a sounder. The detector shall include a mounting base for mounting to 3½-inch and 4-inch octagonal, single gang, and 4-inch square back boxes with a plaster ring, or direct mount to the ceiling using drywall anchors. Wiring connections shall be made by means of SEMS screws. The detector shall allow pre-wiring of the base and the head shall be a plug-in type. The detector shall have a nominal sensitivity of 2.5% per foot nominal as measured in the UL smoke box. The detector shall be capable of automatically adjusting its sensitivity by means of drift compensation and smoothing algorithms. The detector shall provide dual color LED indication which blinks to indicate power-up, normal standby, out of sensitivity, alarm, and freeze trouble conditions. When used in conjunction with the 2W-MOD2 module, the 2WTA-B shall include a maintenance signal to indicate the need for maintenance at the alarm control panel, and shall provide a loop testing capability to verify the circuit without testing each detector individually. When used in conjunction with the RRS-MOD module, all i3 sounder models on a loop shall sound when one alarms, all shall be synchronized, and all sounders may be silenced from the panel.

Electrical Specifications

The Operating Voltage shall be; Nominal: 12/24V non-polarized, Minimum: 8.5V, Maximum: 35V. The Maximum Ripple Voltage shall be 30% peak to peak of applied voltage. The Standby Current shall be 50 μ A maximum average. The Peak Standby Current shall be 100 μ A. The Maximum Alarm Current shall be 130 mA Direct Power (Non-reverse Polarity): 130 mA limited by panel. Reverse Polarity Power: 30 mA for the 2WTA-B in alarm; 12 mA for all other 2WTA-B units on the loop. Add 25 mA for the RRS-MOD reversing relay alarm current.

Physical Specifications

The 2WTA-B dimensions (including base) shall be 5.3 inches (134 mm) diameter; 2.0 inches (51 mm) height. The approximate detector weight shall be 7.1 oz. (200 grams). The Operating Temperature Range shall be 32°F–100°F (0°C–37.8°C). The Operating Humidity Range shall be 0 to 95% RH non-condensing. The Thermal Sensor shall be 135°F (57.2°C) fixed. The Freeze Trouble shall be 41°F (5°C). The Sensitivity shall be 2.5%/ft. nominal. The Input Terminals shall be 14–22 AWG.

Mounting options for the 2WTA-B detector include; 3½-inch octagonal back box, 4-inch octagonal back box, Single gang back box, 4-inch square back box with a plaster ring, or direct mount to ceiling.

LED Modes

At Power up, the Green LED shall blink every 10 seconds; the Red LED shall blink every 10 seconds. In Normal (standby) mode, the Green LED shall blink every 5 seconds; the Red LED shall be off. In Out of sensitivity mode, the Green LED shall be off; the Red LED shall blink every 5 seconds. In Freeze trouble mode, the Green LED shall be off; the Red LED shall blink every 10 seconds. In Alarm mode, the Green LED shall be off; the Red LED shall be solid.