

GENTEX 913 SERIES

9 Volt Battery Powered Photoelectric Type Residential Smoke Alarm

Applications

The Gentex 913 Series Smoke Alarm is a 9 Volt battery photoelectric type smoke alarm for use as an evacuation device in residential applications. Each alarm has a solid state 90 dBA piezo signal in temporal pattern to warn and alert the household to the presence of threatening smoke and to evacuate the building.

The photoelectric alarm is designed to detect the smoke that results from an actual fire. Consequently, it is uncommon for a household smoke such as cigarette smoke or normal cooking to cause an alarm.

The 913 Series is engineered to virtually eliminate nuisance alarms and deliver outstanding performance wherever reliable fire protection is required.

The 913 Series provides an exclusive patented three position test feature that simulates 0.85% and 3.5% actual smoke conditions in full compliance with UL 217 standards. It also provides a maintenance indicator and makes the 100% testing requirement easy.



Approvals



● UL 217

Standard Features

- 90 dBA Solid-State Non-Latching Temporal 3 Pattern
- One Year Warranty From Date of Purchase
- Nominal 2.5% Sensitivity
- 5 to 1 Signal to Noise Ratio
- Pulsing LED Sensing Chamber
- Fully Insect Screened
- Functional Test Switch
- Patented Three Position Test
- Mounting Hardware
- 9 Volt Battery
- Solid State LED Condition Indicator
- Dust Cover to Prevent Contamination During Installation
- On Site Maintenance Washing Program
- Wall or Ceiling Mountable

How it Works

The 913 Series smoke alarm operates on the photoelectric light scatter principle. The unit's sensing chamber houses a light source and a light sensor. The darkened sensing chamber is exposed to the atmosphere and designed to permit optimum smoke entry from any direction while rejecting light from outside the alarm. The light source is an infrared (invisible) LED which pulses every 8 seconds. The light sensor is a photodiode matched to the light frequency of the LED light source.

Under normal conditions, the light generated by the pulsing infrared LED is seen by the light sensor, as it is positioned out of the direct path of the light beam. When smoke enters the sensing chamber, light from the pulsing LED light source is reflected by the smoke particles onto the photodiode light sensor. At the first sighting of smoke, the alarm is put into a prealarm mode. This is indicated by the rapidly flashing LED on the face of the alarm. Once the light sensor confirms smoke for 2 consecutive pulses inside the chamber, the light sensor produces the signal necessary to trigger the alarm.

This technique of verifying the smoke condition, combined with a 5 to 1 noise ration, substantially reduces the possibility of nuisance alarms.

GENTEX CORPORATION

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