Features

- Unique optical sensing chamber
- Built-in signal processing
- 3.0% nominal sensitivity
- Removable cover for field cleaning
- Visible LED “blinks” in standby
- Sealed against dirt, insects, and back pressure
- Field metering of detector sensitivity
- Built-in magnetic test switch
- Low standby current
- Built-in tamper-resistant feature
- Designed for direct surface or electrical box mounting
- 360° Field viewing angle of the visual alarm LEDs
- Insect-resistant screening
- Easy plug-in of the head to base
- SEMS screws for easy wiring
- Air velocity up to 3000 feet per minute (914 meters per minute)

Applications

Photoelectric detectors are recommended in areas where slow smoldering fires are likely to ignite. In areas where small combustion particles are usually present from fork-lift trucks, cooking stoves, etc., they are less likely than ionization detectors to produce false alarms. The detectors are used in combination with an Ansul AUTOPULSE® Control System and an Ansul fire suppression system for automatic detection, alarm, equipment control, and fire suppression system release capabilities.

Description

The 2151 photoelectric smoke detector contains a unique optical sensing chamber designed to sense the presence of smoke particles produced by a wide range of combustion sources and meet the performance criteria designed by UL 268. An integrated circuit incorporates signal processing to reduce false alarms and sample/hold circuitry to provide easy field metering of sensitivity.

The 2151 photoelectric detector incorporates the light scatter principle within its sensing chamber and solid-state circuitry allowing it to react to either smoldering or flaming fires.

The high-impedance circuitry of the detector allows a single loop to power multiple detectors with very low power consumption. Two externally-mounted LED indicators are provided which will blink as long as the detector is powered and will light steadily when the detector is in alarm.

Technical Information

- Stand-by Current: 85 microamps
- Sensitivity: 3.0% nominal
- Weight: 0.5 lb. (277 g)
- Size: 1.7 in. High x 4.0 in. diameter (84 mm x 102 mm)
- Construction: Flame retardant white thermo plastic
- Temperature: 32 °F to 120 °F (0 °C to 49 °C)
- Humidity Range: 10-93% RH (non-condensing)
- Maximum Air Velocity: 3000 feet per minute (15 meters per second)
Mounting Guidelines

The detector bases are designed for surface mounting. The detector head can be inserted or removed from the base without disrupting the wiring connections.

All detector bases can be mounted to a 3 1/2 in. octagon, 4 in. octagon, or a 4 in. square outlet box.