

Pinnacle™ 7251

Intelligent Laser Smoke Detector



Features

- Ultra-high-sensitivity capability
- On-board drift compensation
- Transient rejection algorithms
- Environmental tracking
- Wide sensitivity range
- Rotary address switches
- Analog communications
- Sleek, low-profile design
- Low standby current
- Microprocessor design
- Superior EMI protection

Description

Pinnacle features a patented smoke sensing chamber, designed to amplify signals from smoke but diminish stray internal reflections. By using a laser diode instead of a standard LED light source into the sensing chamber, Pinnacle is able to achieve sensitivities from 0.02 percent-per-foot to 2 percent-per-foot obscuration.

The detectors' extensive software processing includes multi-alert drift compensation, internal self diagnostics, and superior transient signal rejection algorithms to produce unprecedented stability at ultra high sensitivities over the complete temperature range.

Because Pinnacle is base-compatible with all other 200 Series detectors, system designers can seamlessly mix it with other standard detection technologies thereby reducing overall cost.

Unlike other high-sensitivity detectors, Pinnacle:

- Can pinpoint identification of the fire location through addressability.
- Experiences no delay in response time due to smoke dilution or smoke transportation time (as in aspirated systems).
- Offers complete supervision of wiring and detector.

Pinnacle is designed to protect valuable assets and operations where systems must remain online at all times. Many sensitive areas cannot tolerate even small amounts of smoke. Some ideal applications for Pinnacle include:

- Telecommunications switching facilities
- Cellular telephone infrastructure
- Integrated circuit fabrication facilities
- Computer rooms
- Traffic control centers
- Clean rooms



Specifications

Voltage Range
15 – 32 volts DC peak
Standby Current (max. avg.)
230 μ A @ 24VDC (without communication) 330 μ A @ 24VDC (one communication every 5 sec. with LED enabled)
LED Current (max.)
6.5 mA @ 24VDC (on)
Height
1.66" (4.2 cm)
Diameter
4.0" (10.2 cm)
Shipping Weight
5.6 oz. (159 g)
Operating Temperature Range
32° to 100°F (0° to 38°C)

Velocity Range
0 – 4000 fpm (0 to 20.3 m/s)
Operating Humidity Range
10% – 93% noncondensing
Self Diagnostics
Initiated by control panel Activated by test magnet
Smoke Sensitivity
9 levels: 0.02, 0.03, 0.05, 0.10, 0.20, 0.50, 1.00, 1.50, 2.00%/ft. obscuration (0.06, 0.10, 0.16, 0.33, 0.66, 1.65, 3.24, 4.85, 6.41%/m obscuration)
Drift Compensation
High sensitivity maintenance alert signal Low sensitivity maintenance alert signal Maintenance urgent signal

Ordering Information

Model	Description
7251	Intelligent Pinnacle™ Laser Smoke Detector

Add suffix "A" for Canadian model.

Detector Base

Model	Description
B210LP*	Flanged Mounting Base; mounts on single gang box; 3-1/2" and 4" octagonal box; and 4" square box with 3" mud ring

* Refer to Catalog Number 4001 for additional compatible B200 Series bases.