

OPTICAL SMOKE DETECTOR

Brief description: The Conventional Photo-Electronic Smoke Detector uses advanced optical sensing technology to deliver reliable fire detection. It is compatible with most conventional fire alarm systems and activates alarms upon detecting smoke or a rapid temperature rise, ensuring prompt and accurate hazard identification.

1. GENERAL DATA :-

Manufacturer	Palladium Safety Solutions Pvt. Ltd.
Trade Mark/Brand	“PALEX”
Type	Optical Smoke Detector

2. ELECTRICAL SPECIFICATIONS :-

Operating Voltage Range	9 to 32V DC (non-polarized)
Maximum Alarm Current	≤ 2 mA
Alarm Current (Led on)	≤ 55Ma @24V DC
Rest Voltage	≤ 3 V
Reset Time	≤ 30 seconds
Start-up Time	≤ 30 seconds

3. ENVIRONMENTAL SPECIFICATIONS :-

Operating Humidity Range	≤ 10% to 93% relative humidity (non-condensing)
Operating Temperature Range	(-)10°C to 49°C (14°F to 120°F)
Storage Temperature Range	(-)20°C to 60°C (-4°F to 140°F)

4. PHYSICAL SPECIFICATIONS :-

Height	2.2 inches (55 mm), installed in base
Diameter	4.0 inches (103 mm)
Weight	5.5 ounces (155g)
Adjustable Sensitivity	1-2.5% per foot
Material	High-quality fire -retardant ABS plastic for durability

5. INDICATOR AND ALARM FEATURES :-

Alarm Indicator	Dual Red LEDs
Led Indications	Normal operation – Flash every 6 seconds to indicate proper functioning. Alarm Condition – LEDs latch on to signify an active alarm. Fault Condition – LEDs turn off when detector sensitivity is outside the listed range. Reset Mechanism – Resettable via momentary power interruption or control panel.



6. KEY FEATURES :-

- Advanced Optical Sensing Technology – ensure accurate detection of smoke particles.
- Thermal Detection Component – Monitors temperature rise for early fire detection.
- 360-Degree LED Visibility – Allows easy identification of alarm status from any angle.
- Low Current Consumption - Energy-efficient design reduces power requirements.
- Robust Environmental Performance – Functions reliably in varying humidity and temperature conditions.
- Compliance – Meets international safety standards for smoke detection.

7. APPLICATIONS :-

- Residential Buildings – Ideal for homes, apartments, and dormitories.
- Commercial Space – Suitable for offices, retail stores, and public buildings.
- Industrial Facilities – Effective in warehouses and manufacturing units.
- Institutional Facilities – Recommended for schools, hospitals, and government buildings.

8. PERFORMANCE TESTING :-

- Sensitivity Testing – Conduct routine tests to ensure the detector's sensitivity remains within the specified range (1-2.5% per foot).
- Functional Testing – Test the alarm indicator and reset mechanisms at regular intervals to confirm operational reliability.
- Environmental Testing – Verify performance across the specified temperature and humidity ranges to ensure consistent detection capabilities.
- Regular maintenance and testing are essential to maximize the efficiency and lifespan of the detector.

9. WARRANTY :-

This smoke detector comes with a 1-year limited warranty covering manufacturing defects and performance issues under normal use. For warranty claims, ensure proper proof of purchase and follow the guidelines provided by the manufacturer.

PALLADIUM SAFETY SOLUTIONS PVT. LTD.

An ISO 9001 : 2015 Certified Company

Email: customercare@palladiumss.com Web: www.palladiumss.com

DELHI | GURUGRAM | CHENNAI