

# HM-PSE-UL PHOTOELECTRIC DETECTOR

## General

The HM-PSE-UL addressable, low-profile plug-in photoelectric detectors use a state-of-the-art photoelectric sensing chamber with communications to provide open area protection – used exclusively with Fire Alarm Control Panels (FACPs). Since these detectors are addressable, they will help emergency personnel quickly locate a fire during its early stages, saving precious rescue time while also reducing property damage. It comes with two LEDs on each sensor light to provide a local, visible sensor indication.

## Applications

The HM-PSE-UL uses photoelectric detectors in life safety applications to provide a broad range of fire-sensing features, especially where smoldering fires are anticipated. Ionization detectors are often better than photoelectric detectors at sensing fast, flaming fires.

## Construction

These detectors are constructed of off-white, fire resistant plastic. HM-PSE-UL plug-in, low-profile smoke detectors are designed to commercial standards and have an appealing design.

## Installation

HM-PSE-UL plug-in detectors use a detachable mounting base to simplify installation, service, and maintenance.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see DF-60059.

## Technical Specifications

### SLC Loop:

- Two-wire SLC loop connection
- Unit uses base for wiring

### Addressing:

- Addressable by device
- Rotary, decimal addressing:  
1- 159 for models SMX and STX

### Architecture:

- Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires
- Sleek, low-profile design.
- Integral communications and built-in type identification
- Built-in tamper-resistant feature
- Removable cover and insect-resistant screen for simple field cleaning

### Operation:

- Withstands air velocities up to 4,000 feet-per-minute (20 m/sec.) without triggering a false alarm
- Factory preset at 1.5% nominal sensitivity for panel alarm threshold level
- Visible LED blinks when the unit is addressed (communicating with the fire panel) and latches on in Alarm mode

### Mechanicals:

- Sealed against back pressure
- Direct surface mounting or electrical box mounting
- Mounts to: single-gang box, 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box, or 4.0" (10.16 cm) square electrical box (using a plaster ring – included)



HM-PSE-UL

## Operation

HM-PSE-UL has a unique unipolar chamber that responds quickly and uniformly to a broad range of smoke conditions. It can withstand wind gusts up to 4,000 feet-per-minute (20 m/sec.) without sending an alarm level signal. Because of its unipolar chamber, the HM-PSE-UL is approximately two times more responsive than most photoelectric sensor – offering enhanced stability.

### Other System Features:

- Fully coated circuit boards and superior RF/transient protection
- 94-V0 plastic flammability rating
- Low standby current

# HM-FHSE-UL, HM-RHSE-UL HM-HTSE-UL THERMAL DETECTORS

## Technical Specifications

SPECIFICATION	
Voltage range	15 – 32 VDC (peak)
Standby current	300 $\mu$ A @ 24 VDC
LED current	6.5 mA @ 24 VDC (latched "ON")
Air velocity	4,000 ft./min. (20 m/sec.) maximum
Size	• 2.1" (5.33 cm) high; base determines diameter • B501: 4.1" (10.4 cm) diameter
Weight	3.6 oz. (102 g)
Operating temperature range	for HM-PSE-UL: 0°C to 49°C (32°F to 120°F)
Temperature	0°C – 49°C (32°F – 120°F)
Relative humidity	10% – 93%, non-condensing

ACCESSORIES	
SMB600	Surface mounting kit
M02-04-00	Test magnet
M02-09-00	Test magnet with telescoping handle
XR2B	Detector removal tool. Allows installation and/or removal of detector heads from bases in high ceiling applications
XP-4	Extension pole for XR2B. Comes in three, 5-foot (1.524 m) sections
T55-127-010	Detector removal tool without pole

### Agency Listings and Approvals

Listing and approval below apply to the modules specified in this. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S36216

### Product Line Information

**HM-PSE-UL:** Addressable photoelectric detector; B501 base included

#### For more information,

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