HM-PTSE-UL

UL LISTED

General

The HM-PTSE-UL detector is an intelligent, addressable, multi-sensing, low-profile detector designed for Fire Alarm Control Panels.

The detector uses a combination of photoelectric and thermal sensing technologies to reduce to false alarms. Unlike traditional intelligent detectors, it has a microprocessor that processes alarm data. As a result, the detector adjusts its sensitivity automatically, without operator intervention or control panel programming.

Areas where the detector is especially useful include office complexes, schools, college campuses, manufacturing, and industrial facilities, and anywhere else where the use of a particular area may change. The detector automatically adjusts its sensitivity to the environment.

Installation

The HM-PTSE-UL plug-in detector uses a separate base to simplify installation, service, and maintenance. A special tool allows maintenance personnel to plug-in and remove detectors without using a ladder. Suitable mounting base boxes include:

- 4.0" (10.16 cm) square box
- 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box
- Single-gang box (except relay or isolator base)

HM-PTSE-UL

NOTE: Avoid installing these detectors in locations that are susceptible to rapid and high temperature changes. An example of an incorrect application would be near or in line with the output of a self-contained heater.

FEATURES & BENEFITS

- Automatically adjusts sensitivity levels without operator intervention or programming
- Sensitivity increases with heat
- Microprocessor-based, combination photo and thermal technology
- Addressable-analog communication
- Sleek, low-profile design
- Two-wire SLC connection

- Addressing:
  - Addressable by device
  - Rotary, decimal addressing: 1- 159 for models SMX and STX
- Addresses can be viewed and changed without electronic programmers
- Dual bi-color LED design provides 360° viewing angle
- LEDs lock red when in alarm.
- Built-in, tamper-resistant feature

- Constructed of off-white, fire-resistant plastic, designed to commercial standards, and offers an attractive appearance
- SEMS screws for wiring of the separate base
- Several base options, including relay, isolator, and sounder
- Built-in functional test switch activated by external magnet
- Listed to UL 268

HM-PTSE-UL Technical Specifications

TECHNICAL SPECIFICATIONS	
Parameter	Specification
Sensitivity fixed-sensitivity levels	1, 2, and 4%/ft with classic CLIP systems
Size	• 2.0" (53 cm) height, base determines daimete • B501: 4.1" (10.4 cm) diameter
Shipping weight	5.2 oz (147g)
Operating temperature	0ºC to 38ºC (32ºF to 100ºF)
UL-Listed velocity range	0 – 4000 ft./min. (1219.2 m/min.), suitable for installation in ducts
Relative humidity	10% – 93% non-condensing
Thermal sensing rating	fixed-temperature setpoint 135ºF (57ºC)

ELECTRICAL SPECIFICATIONS	
Parameter	Specification
Voltage range	15 – 32 volts DC peak
Standby current (max. avg.)	300 μA
Loop resistance	50 ohms maximum; varies according to control panel used. Refer to panel installation manuals
LED current (max.)	6.5 mA @ 24 VDC ("ON")

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
T55-127-010	Detector removal tool without pole
XP-4	Extension pole for XR2B. Comes in three 5-foot (1.524m) sections

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-PTSE-UL: Low-profile, intelligent, multi-sensor detector

Honeywell

MORLEY IAS FIRE SYSTEMS

HM-PSE-UL

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.

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.

FEATURES & BENEFITS

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 desig.
- 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)

Other System Features:
- Fully coated circuit boards and superior RF/transient pro-tection
- 94-V0 plastic flammability rating
- Low standby current

HM-PSE-UL Technical Specifications

SPECIFICATION	
Voltage range	15 – 32 VDC (peak)
Standby current	300 μA @ 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: 0ºC to 49ºC (32ºF to 120ºF)
Temperature	0ºC – 49ºC (32ºF – 120ºF)
Relative humidity	10% – 93%, non-condensing

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Product Line Information

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

Honeywell

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