PW-300APT
Acclimate® Plus™ Multi-Sensor Low-Profile Intelligent Detector

Protectwell®
Fire Alarm Solution

General

The PW-300APT Acclimate® Plus™ detector is an intelligent, addressable, multi-sensing, low-profile detector designed for use with PTW-3300 and PTW-3300S Fire Alarm Control Panels (FACPs).

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

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

FlashScan® is a communication protocol that greatly increases the speed of communication between analog intelligent devices. Intelligent devices communicate in a grouped fashion. If one of the devices in the group has new information, the panel's CPU stops the group poll and concentrates on single points. The net effect is response speed greater than five times that of earlier designs.

Features

- 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.
- Rotary, decimal addressing (1-99 on CLIP systems, 1-159 on FlashScan systems).
- Addresses can be viewed and changed without electronic programmers.
- Dual bi-color LED design provides 360° viewing angle.
- LEDs lock red when in alarm. In FlashScan, LEDs flash green in standby for normal condition.
- 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.

- Capable of heat-only alarm mode, enabled by a special command from the panel. Smoke alarms are ignored.
- Low-temperature signal at 45°F +/– 10°F (7.22°C +/–5.54°C).

Specifications

Sensitivity: auto-adjusting levels: 1 to 2%/ft. and 2 to 4%/ft. with classic CLIP systems; 1 to 2, 2 to 3, and 3 to 4%/ft. with systems; fixed-sensitivity levels: 1, 2, and 4%/ft. with classic CLIP systems; 0.5, 1, 2, 3, and 4%/ft. with FlashScan systems.

Size: 2.1" (5.3 cm) high; base determines diameter.

– **B210LP:** 6.1" (15.5 cm) diameter.

– **B501:** 4.1" (10.4 cm) diameter.

– **B200S:** 6.875" (17.46 cm) diameter.

– **B200SR:** 6.875" (17.46 cm) diameter.

– **B224RB:** 6.2" (15.748 cm) diameter.

Operating Temperature range: 0°C to 38°C (32°F to 100°F).

UL Listed Velocity Range: 0-4000 ft/min. (1219.2 m/min.), suitable for installation in ducts.

Relative Humidity: 10%-93% non-condensing.

Thermal Ratings: Fixed-temperature set point 135°F (57°C).

ELECTRICAL SPECIFICATIONS

Voltage Range: 15-32 volts DC peak.

Standby Current (max. avg.): 300µA @ 24VDC (one communication every five seconds with LED enabled).

Loop resistance: 50 ohms maximum; varies according to control panel used. Refer to panel installation manuals.

LED Current (max.): 6.5mA @ 24 VDC ("ON").

Installation

The PW-300APT 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.

• Single-gang box (except or isolator base).

NOTE: The PW-300APT detector has the unique ability to adjust sensitivity according to the environment, based on heat and smoke levels. 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.

Agency Listings and Approvals

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

• **UL Listed:** S24710

Product Line Information

PW-300APT: Low-profile intelligent multi-sensor detector.

INTELLIGENT BASES

B501: Standard European flangeless mounting base.

B501BP: Bulk pack of B501; package contains 10.

B200S: Intelligent, programmable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone.

B200SR: Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Replaces B501BH series bases in retrofit applications.

B224BI: Plug-in System Sensor isolator detector base. Maximum 25 devices between isolator bases.

ACCESSORIES

PW-LED-01: Remote LED Indicator.

RA100Z: Remote LED annunciator. 3 –32 VDC. Mounts to a U.S. single-gang electrical box.

SMB500: Surface mounting kit.