PW-300T Series
Intelligent Photoelectronic Smoke Detector

PROTECTWELL
Fire Alarm Solution

General

PROTECTWELL PW-300T Series intelligent plug-in thermal detectors with integral communication has features that surpass conventional detectors. Point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector locations. PW-300T Series thermal detectors use an innovative thermistor sensing circuit to produce 135°F/57°C fixed-temperature PW-300T and rate-of-rise thermal detection (PW-300TR) in a low-profile package.

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. It can use with PTW-3300 and PTW-3300S Fire Alarm Control Panels (FACPs).

Features

- Sleek, low-profile, stylish design.
- State-of-the-art thermistor technology for fast response.
- Rate-of-rise model (PW-300TR), 15°F (8.3°C) per minute.
- Factory preset fixed temperature at 135°F (57°C); high-temperature model fixed at 190°F (88°C).
- Addressable by device.
- Compatible with FlashScan® and CLIP protocol systems.
- Rotary, decimal addressing (1-99 on CLIP systems, 1-159 on FlashScan systems).
- Two-wire SLC connection.
- Visible LEDs "blink" every time the unit is addressed.
- 360°-field viewing angle of the visual alarm indicators (two bi-color LEDs). LEDs blink green in Normal condition and turn on steady red in Alarm.
- Integral communications and built-in device-type identification.
- Remote test feature from the panel.
- Built-in functional test switch activated by external magnet.
- Walk test with address display (an address of 121 will blink the detector LED 12-(pause)-1).
- Low standby current.
- Backward-compatible.
- Built-in tamper-resistant feature.
- Designed for direct-surface or electrical-box mounting.
- Sealed against back pressure.
- Plugs into separate base for ease of installation and maintenance. Separate base allows interchange of photoelectric, ionization and thermal sensors.

- SEMS screws for wiring of the separate base.
- Constructed of off-white fire-resistant plastic, designed to commercial standards, and offers an attractive appearance.
- 94-5V plastic flammability rating.
- Remote LED output connection to optional remote LED annunciator.
- Optional sounder, and isolator bases.
- Optional flanced surface mounting kit.

Installation

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.

– B224BI: 6.2" (15.748 cm) diameter.

– P301BH: 5.98" (15.2 cm) diameter.

– B501BH-3: 5.98" (15.2 cm) diameter.

– B500BH-3: 4.04" (10.3 cm) diameter.

Operating Temperature range: PW-300T Series, PW-300TR: –20°C to 38°C (–4°F to 100°F);

Detector spacing: UL approved for 50 ft. (15.24 m) center to center. FM approved for 25 x 25 ft. (7.62 x 7.62 m) spacing.

Relative humidity: 10% – 93% non-condensing.

Thermal ratings: fixed-temperature set point 135°F (57°C), rate-of-rise detection 15°F (8.3°C) per minute.

SE-190711-Z

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ELECTRICAL SPECIFICATIONS

Voltage range: 15 - 32 volts DC peak.

Standby current (max. avg.): 300µA @ 24 VDC (one communication every 5 seconds with LED enabled).

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

Installation

The PW-300T Series plug-in intelligent thermal detectors use a separate base to simplify installation, service, and maintenance.

Installation instructions are shipped with each detector. A special tool allows maintenance personnel to plug in and remove detectors without using a ladder 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.

NOTE: 1) Because of inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring. 2) When using relay or sounder bases, consult the PISO-3 installation sheet for device limitations between isolator modules and isolator bases.

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. 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

FM Approved.

CCCF.

Product Line Information

PW-300T: Intelligent thermal detector. Must be mounted to one of the bases listed below.

PW-300TR: Intelligent thermal detector with rate-of-rise feature.

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.