PROTECTWELL

PW-600P

Intelligent Photoelectric Smoke Detector

Description

PW-600P is an intelligent photoelectric smoke detector which featured a new generation of smoke detector based on advanced infra-red and blue light spectrum smoke detection technology. It is equipped with intelligent algorithm which can adapt to numerous fire patterns, and can sense early warning fire accurately and timely. The detector is compatible with fire alarm system to provide protection for open areas.

The detector has a 360° visible LED indicator light that blinks when the detector is in the monitoring state. When the detector alarm, the controller sends a command to latched the indicator in steady condition. When the controller is reset, the detector returns to the normal monitoring state and the indicator blinks in polling state. The indicator blink polling can be disabled when special needs are required.

PW-600P is a two-wire bus detector, and its communication line adopts non-polarity wiring design, which is convenient for on-site wiring installation.

This detector comes with dust cover, only during the construction period to provide dust protection to the detector. The dust cover must be removed during normal operation of the detector.

Specifications

Rated Voltage: DC24V.

Standby Current: 380μA@DC24V.

Alarm Current: 1.5mA@DC24V.

Operating Temperature: -10°C ~ 55°C.

Operating Humidity: 5% ~ 95%RH Non-condensing.

Dimension: Φ103×49mm (Including base).

Weight: 60g.

Software Version: A.

Carried Standard: GB 4715-2005.

Addressing

PW-600P is an intelligent detector, each detector in the loop must be uniquely addressed, its address is set by address coder/decoder handhold programmer CP600M, address range: 1~230. Please refer to the CP600M instructions for specific operations.

Terminal Description

PW-600P detector is used with P601 detector base, and its wiring terminals are defined as follows:

1	Communication
2	Communication

Power Supply and Wiring

Power supply instruction

The design of the system is determined by calculation of the number of detectors allowed in the loop according to the load capacity of the controller or power supply, ensuring that the sum of the current consumed by all devices in the loop does not exceed the load capacity of the controller or power supply. In the loop calculation, it is necessary to consider the voltage drop caused by the resistance of the line.

Resistance of general wiring sizes

1.0 mm² 19.5Ω/1000m

1.5 mm² 13.3Ω/1000m

2.5 mm² 7.98Ω/1000m

For example, if there are 10 devices in a certain area and each device needs 10mA, connect them with 1.5mm ² lines of 2000m (total line length = line length in operation + line length returned), and the current at the end of the line is 10mA, then: Number of devices x terminal current x (total length of lines x wire resistivity) = voltage drop, 10 x 10 mA x (2000m x 13.3 ohms /1000m) ≈ 2.7V

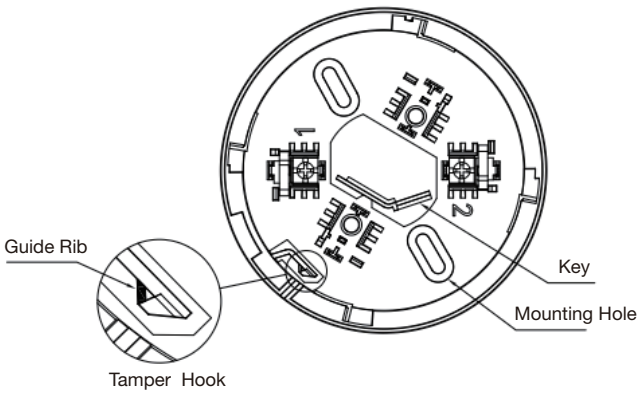

Figure 1: P601 Detector Base

Wiring

PW-600P detector is used with P601 detector base. Wiring diagram as shown in Figure 2. This detector adopts non-polarity wiring design, does not distinguish positive and negative poles.

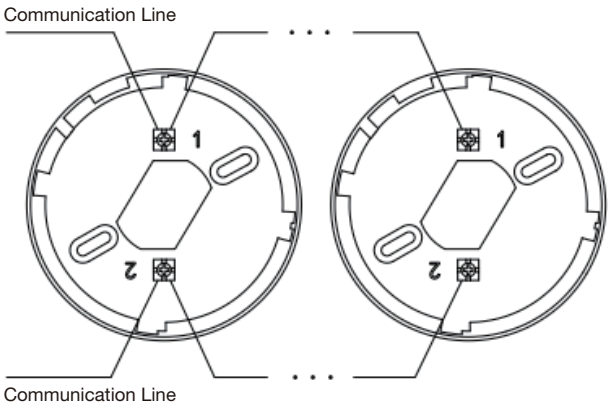

Figure 2: Wiring Diagram

Mounting

Install the detector base at the preset installation position.

NOTE: The tamper device is not enabled on the detector base by default. If the tamper device needs to be enabled, please first remove the guide rib on the tamper hook, remove and keep the key (as shown in Figure 1), for use when removing the detector.

Disconnect the power supply of the loop and wiring according to the wiring diagram (Figure 2).

Use the address coder/decoder handhold programmer CP600M to address the detector.

Rotate the detector clockwise into the base of the detector to complete the installation.

Confirm that the dust cover has been removed during the normal operation of the detector.

Testing

Detectors must be tested after installation and after each regular maintenance.

NOTE: Before the test, please inform the relevant management department to disconnect the logic control function of the system in the maintenance area to avoid unnecessary alarm linkage. The system will temporarily stop working while the detector is being maintained.

The detector can be tested by Solo A10S or A5 detector testers smoke aerosols with the same effect to blow smoke into the detector chamber through the smoke inlet window (as shown by the arrow in Figure 3) until the detector alarm.

After the controller is reset, the detector returns to the normal monitoring state and the indicator light blinks.

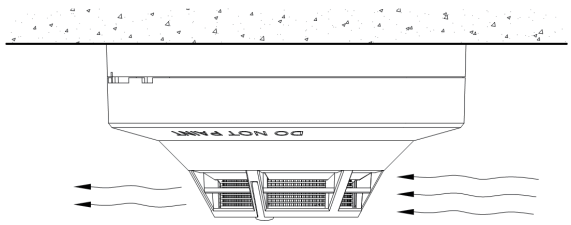

Figure 3: Testing

Remove

Tamper not enabled

For the detector with the tamper not enabled, the detector can be removed by rotating the detector in the direction shown by the arrow in Figure 4.

Tamper enabled

For the detector with tamper enabled, push the key from the position shown in Figure 4 with moderate force and rotate the detector in the direction indicated by the arrow in Figure 4 to remove the detector.

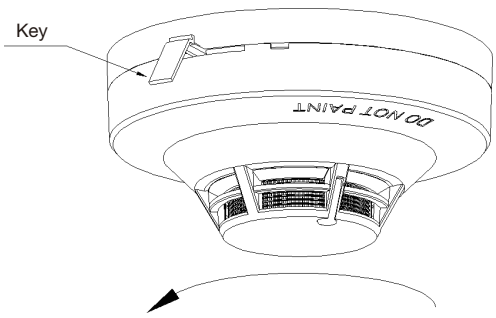

Figure 4: Remove

Ordering Information

PW-600P: Intelligent Photoelectric Smoke Detector.

PW-600P/C*: Intelligent Photoelectric Smoke Detector.
(CLIP model for legacy system).

P601: Detector Base.

NOTE: "/C" is ordering suffix and will not show on product label.