

# PW-300STA

Intelligent Point Type Smoke/Heat Multisensor Detector

## Description

PW-300STA intelligent point type smoke/heat multisensor detector contains an optical smoke sensor and a thermistor temperature sensor whose outputs are combined to give the final analogue value.

The way in which the signals from the two sensors are combined depends on the response mode selected. The different modes provide response behavior which incorporates pure heat detection, pure smoke detection and a combination of both. The multisensor detector is therefore useful over the widest ranges of applications.



## Features

- PW-300STA has its own independent micro CPU. When it detects smoke or temperature rise, it can judge whether it needs to alarm without depending on the controller. And its alarm speed is faster and alarm accuracy is higher than other detectors.
- The working mode of PW-300STA can be set by the controller according to the environment and customer requirements.
- Compensation for signal drift to compensate for changes in the sensor output, to ensure that the detector is in the optimal detection state.
- Mixed addressing including detectors and modules can be achieved in the same loop making installation and commissioning more convenient.
- Address setting by handheld programmer to facilitate easy replacement and future maintenance.
- Rejection of transient signals for prevention of false alarm.
- Field tests can be carried out remotely.

## Specifications

**Operating Voltage:** 24VDC.

**Quiescent Current:** 175 $\mu$ A.

**Power-up Surge Current:** 1mA.

**Alarm Current:** 1mA.

**Operating Temperature:** -10°C ~ 65°C (GB).  
-40°C ~ 70°C (self testing).

**Storage Temperature:** -40°C ~ 80°C.

**Humidity:** 0% - 95%RH (non-condensing).

**IP Rating:** IP34.

**Dimension:** 100mm(D) $\times$ 49mm(H) (not including base).

**Weight:** 100g (not including base).

**Housing Material:** White flame-retardant polycarbonate.

**Carried Standard:** GB 4715-2005 & GB 4716-2005

# PW-300 Series

Conventional Standard Detector Base

## Features

All PW-300 series conventional detectors fit into PW-300 series standard mounting bases. The bases are 100 mm diameter and have five terminals marked according to their function: Line 1 in, Line 1 out, Line 2 in and out, remote indicator negative, earth. Detectors are polarity insensitive, so that identification of the positive and negative lines are only required if a remote LED is fitted. An earth connection is not required for either safety or correct operation of detectors. The earth terminal is provided for tidy termination of earthed conductors or cable screens and to maintain earth continuity where necessary. Bases have wider interior diameter for ease of access to cables and terminals and there are two slots for fixing screws at a spacing of 51 to 69 mm. Detectors fit into bases one way only and require clockwise rotation without push force to be plugged in.



PW-300 Series Mounting Base

## Technical Specifications

**Supply Wiring :** Two wire monitored supply

**Terminal Functions :** L1 (IN) and L2 supply in connections (polarity insensitive)  
L1 (OUT) and L2 supply in connections (polarity insensitive)  
-R remote indicator negative connection

**Supply Voltage :** 9 to 33V DC

**Remote Output Characteristics :** Remote is a current sink to the negative line limited to 17mA

**Storage Temperature Range :** -30 degrees C to 120 degrees C

**Operating Temperature :** -20 degrees C to +90 degrees C (non-icing)

**Relative Humidity :** 0% to 95%

**Dimensions of Base :** 100 mm x 15 mm (diameter x height)

**IP Rating :** IP23D

**Weight :** 46 g without plugged in detector

**Materials :** White polycarbonate and terminals with nickel plated stainless steel

Schematic Wiring of Monitored PW-300 series detector base with Remote LED Output Indicator

