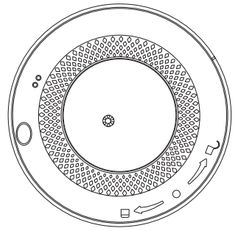
60mm

80mm

dimax

Wireless Photoelectric Smoke Detector

User Manual V1.0



MODELO: S191

Product Introduction

This product is wireless photoelectric smoke detector with RF433 emission frequency. The smoke sensor components used special high performance ultra-low power microprocessor.
Power consumption is very low, stable and reliable performance, beautiful and durable, easy to use. We use 2pcs 1.5V AAA alkaline batteries, standby time is more than one year.

This product is not suitable for using in the following places:

1. Places with smoke retention under normal circumstances;
2. Lots of dust, water mist, steam, oil mist pollution, corrosion;
3. Extremely cold and hot places with relative humidity greater than 95%;
4. Place with ventilation speed greater than 5m/ s.

Working principle

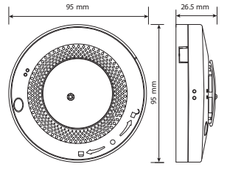
Smoke sensing components use infrared light scattering principle to detect fire disaster. The infrared transmitting tube and receiving tube are installed in the optical chamber at a fixed Angle. In a smoke-free environment, the infrared receiving tube can hardly receive the signal of the infrared transmitting tube. When the fire occurs, there will be smoke entering the chamber. The microprocessor determines the threshold value of the amplified signal. If the alarm threshold is reached or exceeded, the buzzer will emit a high-decibel alarm sound, the output port will send an alarm level signal, and the red indicator light will flash, so that people can know the fire situation as soon as possible. When the smoke in the detection environment dissipates, the alarm automatically returns to the normal working state. The information is sent to the cloud platform through RF433(host required).

Technical parameters

Operating voltage: 3V
Power supply: 2pcs 1.5V AAA alkaline batteries
Static current: ≤15uA
Alarm current: ≤200mA
Alarm sound pressure:≥80dB (3m in front)
Alarm output: Sound and light alarm
LED indication: Red
RF frequency: 433M Hz
Transmitting distance: 100m ~ 200m (open space)
RF modulation and demodulation mode: OOK,FSK
Operating temperature:- 10 to + 50
Relative humidity: <95%RH(no condensation)
Implementation standard: GB20517-2006

Product Dimension

1.Outline structure of the detector



Installation and debugging

1. Installation Environment:

For the normal places, the installing height below 6m, the protection area is 60m². The detector shall be mounted on the ceiling.

2.Installing steps

Put two 1.5V batteries into the battery compartment of the base.
Press the transparent button for 3S, and the LED will be on. After 3S, the alarm indicator will blink and the buzzer will sound.Sound from small to large indicates that the detector is working normally.

Fix the detector base to the ceiling and rotate the cover to the installation base counterclockwise and fasten it.
Press the transparent button for 3S self-check of the alarm, and it should be able to issue sound and light alarm.



Figure 1

Function details

Normal state: the detector will give a beep when it is powered on, and the LED will keep on for 3 seconds.

Self-check state: In normal state, press and hold the transparent button, the red light is on, 3S later, alarm Red LED indicator light blinking, buzzer sound from small to large. When the volume reaches the maximum, the self-check is completed, the LED is off, the sound is turned off, and the normal monitoring status is restored.

Fault state: Battery low power state,the detector "breakdown" sound in about 48 seconds indicates the battery Low electricity, insufficient power, should be replaced in time with a new battery, otherwise it will affect the normal work of the detector.

Alarm state: When the detector detects that the smoke reaches a certain concentration, it will issue a sound and light alarm (the alarm signal is the same as the self-check state at the beginning). When the sound volume reaches the maximum, the sound will ring for 1S and the frequency of 1S off will alarm for 4 consecutive times (temperature alarm for 3 consecutive times). After a pause for 2S, the cycle detector will alarm. Restore the normal state.

Mute state: under alarm state, press the transparent key (press the key less than 3S then release).
The detector will enter the silencing state, and the red LED flashing state of the alarm will remain unchanged. During the silence period, If the smoke concentration is less than the alarm threshold, the red light is turned off, the sound is turned off, and the normal state is restored. If the device is still in the smoke alarm state, after 88 seconds, automatically exit the silence state, again Restore the sound and light alarm.

Fault analysis and troubleshooting

1. About 48 seconds, the alarm "beep" a short warning sound, indicating that the battery is insufficient, please replace the battery.
2. Frequent false alarm: too much ash accumulates in the sensor, clean the maze with a vacuum cleaner (black plastic external part).
3. Press the transparent button and no response: check whether the alarm is installed in place. If it is still invalid after installation, please contact the supplier.

Maintain

1. Please contact the supplier as soon as possible in case of use failure. Do not disassemble and repair without approval to avoid accidents.
2. Press the transparent button once a month to test the alarm. If the fault is found, it will be repaired in time.

Items list

Smoke detector (including base) 1 piece
Self tapping screws 2 PCS
User manual 1pc