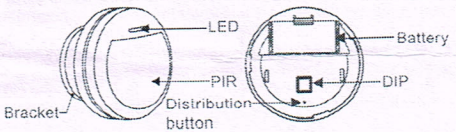
Passive infrared detector

SP02-ZB Passive Infrared Detector User Manual

● Product Brief

SP02-ZB is a passive infrared intrusion detector suitable for indoor use. Its passive infrared part adopts a precise cylindrical Fresnel lens, which can effectively improve the efficiency of energy reception, with high detection sensitivity but no false alarms; coupled with advanced patented software technology, it can make it to real intruders or other possible errors. Report the interference factors to make accurate judgments. This machine uses CR123A, which is a low power consumption product with a lifespan of about one year.

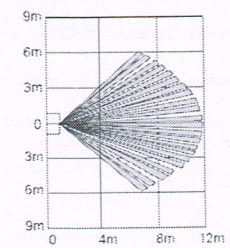


Overall appearance　　Internal structure map

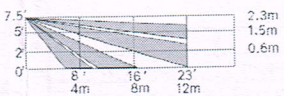
● Specifications

Product No.	SP02-ZB
Detection distance	12m/25℃
Launch distance	30~50m (indoor)
Operating Voltage	DC3V, 1*CR123A lithium battery
Working current	≤25mA
Quiescent Current	≤20μA
Infrared part (as shown below)	
Optical lens data sheet	
Infrared area	33. 5
Maximum coverage area	12m*12m (39*39 feet)/90°
Working frequency	2.4GHz
Network protocol	ZigBee IEEE802.15.4

Dismantle alarm	Detector tilted 45° in any direction
Size	Φ60*H45mm
Installation method	Wall mount
Installation height	1.8~2.5m
Working environment	
Operating temperature	-10℃ ~ 50℃, <95%RH
Storage temperature	-20℃~60℃(-4℉~140℉)
Anti-white light interference	Typical6500LUX (indoor)
Lights	
Power on	LED flashes 9 times in a row and goes off
Distribution network	LED flashes quickly
Report	LED flashes once



SP02-ZB wall mounting
Schematic diagram of wide-angle lens



SP02-ZB Side view

● APP download and use

Users please scan the following QR code or download and install the "Tuya Smart" APP in the mobile application market, and register for use after the installation is complete.

● Prepare before connecting

- The infrared detector has been inserted into the battery;
- Smart gateway has been added to APP;
- Mobile phone and gateway access the same WiFi;
- Mobile phones, sub-devices and gateways are within the effective range of Zigbee network.

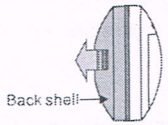
P/N:21270702B01

Internet access settings

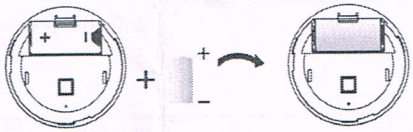
a. Open the home page of the APP, select the gateway, and click "Add sub-device" at the bottom of the page;
b. Use the card pin to press and hold the network distribution button for more than 5 seconds, and the red indicator light flashes quickly;
c. Click "Indicator is flashing fast" and operate the sub-device to access the network according to the prompt;
d. After the addition is complete, the device can be found in the "My Home" list.
Reset the network: Press and hold the network configuration button for 5 seconds, and the red indicator will flash quickly, the device will exit the network and enter the network configuration mode again.

Battery replacement

A. Separate the back shell from the detector.



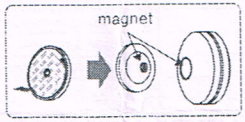
B. Remove the old battery and insert the battery correctly according to the marked battery polarity mark.

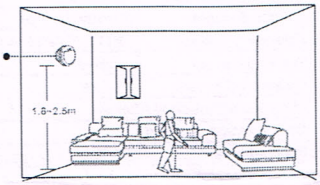


C. Close the back shell

Installation

Tear off the double-sided adhesive protective film of the bracket, stick the bracket 1.8~2.5 meters away from the ground, align the bracket and the detector magnet position to connect, pay attention to the indicator light facing upwards.



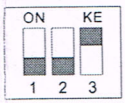


PIR reporting mechanism

a. Report the status once after the successful network configuration;
b. The sensor detects the movement of someone, reports the state of someone for 60 seconds, and turns on the 60-second timer wake-up mechanism (0~60S of the sensor is no longer detected);
c. Within 60S, if the sensor detects someone moving, report the manned state for 60S, repeat the second step, and so on; if the sensor detects nobody moving, report the unmanned state.

DIP switch setting

NO.	OFF	ON
1	High sensitivity(default)	Low sensitivity
2	Alarm delay 60 S(default)	Alarm delay 5mins
3	LED OFF	LED ON(default)



Walk test the coverage area

① Set the alarm delay of the detector to 60 S mode for walking test.
②At the far end of the coverage area, move at a speed of one step per second (about 0.75m/s) from any direction, and move laterally within the detection range, which will cause the LED indicator to light for a few seconds, and an alarm will be generated. (As shown on the right)
③ Walk test from the opposite direction to determine the perimeter of both sides. The detection center should be directed to the center of the protected area.
④ The center of the detection area should not be inclined upward. If the ideal detection distance cannot be obtained, the detection range should be adjusted up and down to ensure that the pointing direction of the detector is not too high or too low.
⑤ When the detection angle of the detector is adjusted, the walking test should be repeated with the above steps.