

# NK-PIR831 Directional PIR Detector

## 1. Introduction

The directional PIR Detector is a passive infrared intrusion detector which adopts energy-saving logic processing and random digital DMT micro-processing technology. The PIR parts adopt refined Fresnel Lens and advanced arch design to upgrade receiving effect, higher sensitivity but lower false alarm. Cooperate with advanced patent software and multi-shielding technology, it has overcome the interference that common detector can't prevent, and it won't trigger false alarm or miss alarm. The detection pulse is optional, and with its digital dual line auto temperature compensation, it can be suitable for various kinds of indoor circumstances. The PIR uses common 9v battery, with unique over-saving mode, it can be used for a long time of as twice as the other brand detectors.

## 2. Specification

Detection Distance: 8m

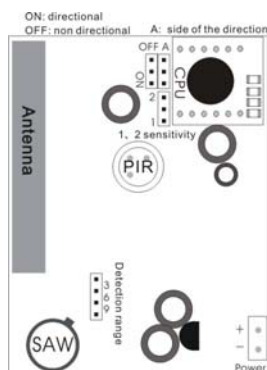
Operating Current: 20mA(alarming), 60μA(standby)

Transmit Frequency: 433MHz

Operating Voltage: 9V

White Light Immunity (indoors) : > 6500 LUX

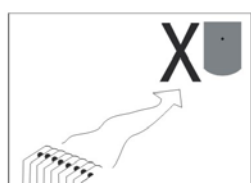
Transmit Distance: 30m to 50m



**3. Installation:** Install it on the wall above window or door, with detection lens downwards; or install it beside window or door, with detection lens toward window or door.

## 4. Guidelines for Installation

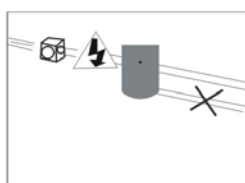
The model is suitable for indoor use only. Do not install it outdoors. It is especially for window/door or inside balcony. Keep regular checking for the battery, and if necessary, replace it in time. When there are missing alarms: Enlarge detection range (set the slip switch to 9m), and adjust sensitivity to 1; When there are false alarms: Reduce detection range (set the slip switch to 3m), and adjust sensitivity to 2.



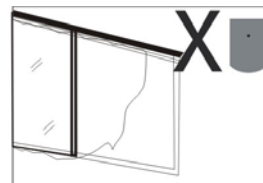
Don't face cold or heat directly



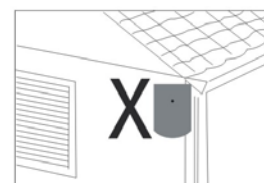
Don't face the sunshine directly



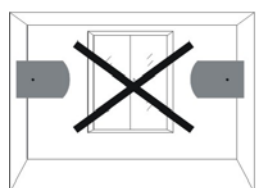
Do not install near electric cables



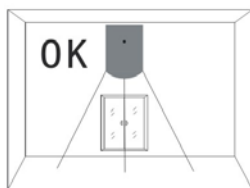
Don't face the fluttering curtain directly



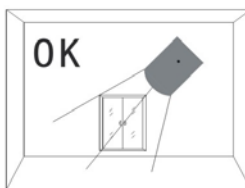
Don't install it outdoor



Do not detect the same area



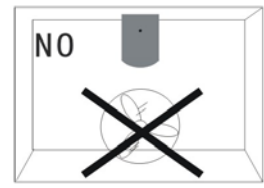
Install it above the window



Install it at the catercorner



Against intruder from the ceiling

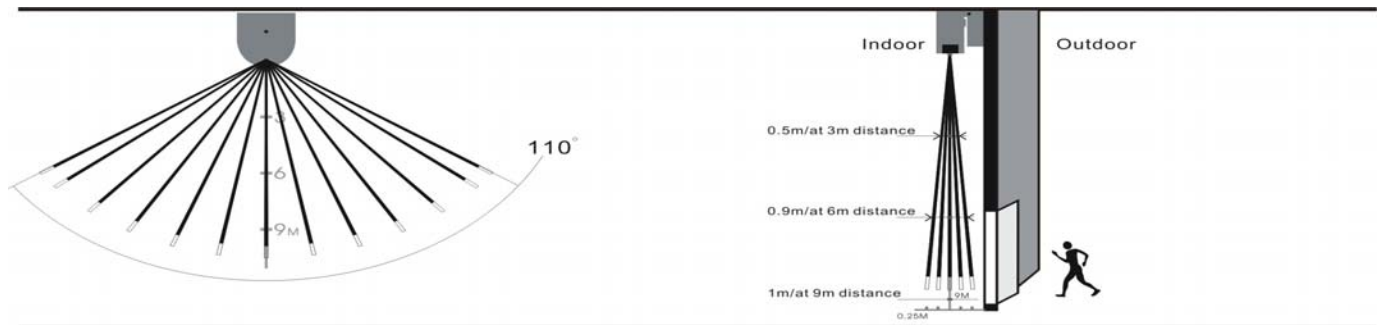


Do not face the strong airflow

## 5. Setting Information

1. You have to power off the detector and wait about 1 minute (allow the inside capacitors discharge) before adjusting its slip switch.
2. The slip switch 3, 6, 9 are for detection range, the further is the range, the higher is its sensitivity.
3. 1 is the higher sensitivity, 2 is the lower sensitivity, adjust it according to need.
4. Direction adjustment: ON means the PIR is directional; OFF means the PIR is non-directional
5. If you need the PIR is directional, select position A or B to adjust the detection area inside or outside.
6. If there are continue human activity within the detection area, the PIR would detect every 10 seconds and send out the alarming signal. After 3 successive times, it will stop transmitting and enter power-saving mode. Only after confirming that there is no human activity for 70 seconds continuously, the detector will then start working again.
7. When the PIR is set to be directional, the PIR will not alarm when going outside, even if coming back within 3 minutes, it would not alarm. It would only alarm after you come back after 3 minutes.
8. When the PIR is set to be directional, the PIR will not alarm when going outside. But when you come back within 3 minutes, after that it detects another one coming in again, it would alarm.

## 6. The detection area figure:



## 7. Walking Test

1. Start the walking test at least 2 minutes after power on
2. Walking to the detection area at the speed of 0.75m/s from outside to inside. It will trigger the detector and the LED lights for 2-3seconds. Alarm occurs.(refer to the picture above)
3. After 2 minutes warm-up, walking from inside non-detection area to outside, check whether the detector would alarm (if it is set to be directional, it would not alarm, the slip switch A B decides the detection is inside or outside)

### Notes:

1. Every time turning it on, the PIR needs 2 minutes warm-up time. Best not to test during the period.
2. If there are continue human activity within the detection area, the PIR would detect and send out the alarming signal every 10 seconds. After 3 successive times, it will stop transmitting and enter to power-saving mode. Only after confirming that there is no human activity for 50 seconds, the detector will then start working again.

## 8 Low Battery Transmitting:

When the PIR has a low voltage or the battery voltage is not stable, it may result in missing and false alarms.

1. The LED flashes every 5 seconds when the detector is in a low voltage status
2. The detector transmits low voltage signal to the panel A. When detecting human activity, the detector transmits both alarm signal and low voltage signal to the control panel.B. When non-human activity, the detector transmits low voltage signal to the control panel every other hour.

### Note:

The second function is only available for the panel which has battery low voltage displaying and alarming function.

## 9. Register to the Panel

Turn on the detector when the panel is in the registering state, the detector would transmit the wireless radio signal to the panel, store this signal, then the detector can work with the panel. Every very time the pir turns ON, it will transmitting a wireless signal.