PIR User Manual

1. Product features

This product is an automatic control module based on infrared technology, imported from Germany LhI778 probe design, high sensitivity, strong reliability, ultra-low voltage working mode, widely used for all kinds of automatic induction electrical equipment, especially the automatic control products powered by dry battery.

2. Electrical parameters

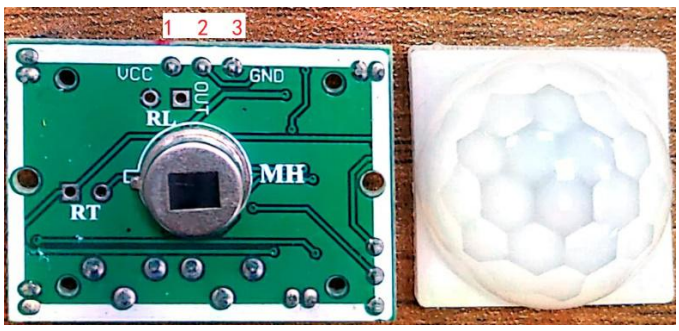
Induction angle	< 100degree cone angle
Size of induction lens	Diameter: 23mm (default)
voltage	4.5V-20V
Quiescent current	<50uA
Level output	Hi-3.3V / Lo-0V
Trigger mode	L: non repeatable trigger H: repeatable trigger
Delay Time	0.5-200s (adjustable)
Blocking time	2.5s (default)
size	32.0mm*24.0mm
Operating temperature	-15℃-+70℃

3. Main application

Security products,
Human body induction toys,
Human body induction lamps,
Industrial automation control, etc.

4. Interface definition

PIN	Name	Description
1	VCC	4.5V-20V
2	OUT	Analog output
3	GND	GROUND



5. Functional features

1. Full automatic induction: when people enter the induction range, they will output high level; when people leave the induction range, they will automatically delay to turn off the high level flat, output low level.

2. Photosensitive control (optional, not set in the factory) can be set photosensitive control, not in the daytime or when the light is strong.

3. Temperature compensation (optional, not set at the factory): in summer, when the ambient temperature rises to 30 ~ 32 ℃, the detection distance changes slightly. The temperature compensation can be used for performance compensation.

4. Two trigger modes: (jumper option)

a. Non repeatable trigger mode: after the induction output high level, the output will automatically start from high level as soon as the delay period ends

Flat to low level;

b. Repeatable trigger mode: after the induction output high level, in the delay period, if there is a human body in its induction

Range activity, its output will remain high until the person leaves, then delay to change the high level to low level (sensing module)

After each activity of human body is detected, a delay period will be automatically postponed, and the time of the last activity will be regarded as the delay period

The starting point of time).

5. With induction blocking time (default setting: 2.5s blocking time): after each induction output (high level).It can be followed by a blocking period in which the sensor does not accept any induction signals number. This function can realize the interval work of "induction output time" and "blocking time", and can be applied to interval detection.At the same time, this function can effectively suppress all kinds of interference in the process of load switching. (this time can be set in a few seconds- tens of seconds).

6. Wide working voltage range: the default working voltage is dc4.5v-20v.

7. Micro power consumption: quiescent current < 50 μ a, especially suitable for dry battery powered automatic control products.

8. Output high level signal: it is convenient to connect with various circuits.

6. instructions

1. There is about one minute initialization time after the induction module is powered on. During this time, the module will output at intervals 0-3 times, one minute later, it will enter the standby mode.

2. Try to avoid the light and other interference sources to directly direct the lens on the surface of the module in a short distance, so as to avoid the introduction of interference signals and misoperation; try to avoid the flowing wind in the use environment, which will also cause interference to the sensor.

3. Dual probe is used in the induction module. The window of the probe is rectangular, and the dual (A and b) are located at both ends of the long direction. When the human body passes from left to right or from right to left, the dual (A and b) is located at the two ends of the long direction, There are differences in the time and distance of the infrared spectrum to the dual element. The greater the difference, the more sensitive the induction is. When the human body walks from the front to the probe or from top to

bottom or from bottom to top, the dual element can not detect the change of the infrared spectrum distance, so the induction is not sensitive or does not work. Therefore, when installing the sensor, the direction of the probe dual element should be as close as possible to the direction of the most human activities Parallel to each other to ensure that the human body is induced by the probe when passing by. In order to increase the sensing angle range, this module uses a circular lens, which also makes the probe sense on all sides, but the left and right sides are still larger than the upper and lower directions in sensing range and sensitivity, so it is still necessary to follow the above requirements when installing.