# **PIR Motion Detector Module**





### **Description**

287-18001 is based on infrared technology, automatic control module, using Germany imported LHI778 probe design, high sensitivity, high reliability, ultra-low-voltage operating mode, widely used in various auto-sensing electrical equipment, especially for battery-powered automatic controlled products.

### **Specifications**

Voltage : 5V - 20V Power Consumption : 65mA TTL Output : 3.3V, 0V

Delay Time : 5 - 300S (Adjustable) Range (approximately 0.3Sec - 5Min)

Lock Time : 0.2sec

Block Time : 2.5S (Default) Can be made a range (0.xx to tens of seconds
Trigger Methods : L - Disable Repeat Trigger, H - Enable Repeat Trigger

Sensing Range : Within 7 meters, less than 120°

Angle Sensor :  $<110^{\circ}$  Cone Angle Temperature :  $-15^{\circ}$ C  $\sim +70^{\circ}$ C Dimension :  $32 \times 24$ mm

Distance between Screws: 28mm M2, Lens Dimension: 23mm Diameter

### **Applications**

Automatically sensing light for Floor, bathroom, basement, porch, warehouse, Garage, ventilator, alarm, etc.

### **Features**

- Automatic Induction: To enter the sensing range of the output is high, the person leaves the sensing range of the automatic delay off high, output low.
- Photosensitive Control (optional, not factory-set): Can be set photosensitive control, day or light intensity without induction.
- Temperature compensation
   (optional, factory reset): In the summer when the ambient temperature rises to 30°C to 32°C, the detection distance is slightly shorter, temperature compensation can be used for performance compensation.
- · Triggered in two ways: Jumper selectable
- Non-repeatable trigger: The sensor output high, the delay time is over, the output is automatically changed from high level to low level.
- Repeatable trigger: The sensor output high, the delay period, if there is human activity in its sensing range, the output
  will always remain high until the people left after the delay will be high level goes low (sensor module
  detects a time delay period will be automatically extended every human activity, and the starting point
  for the delay time to the last event of the time).





# **PIR Motion Detector Module**



- With induction blocking time (the default setting: 2.5s blocked time): Sensor module after each sensor output (high into low), followed by a blockade set period of time, during this time period sensor does not accept any sensor signal. This feature can be achieved sensor output time "and" blocking time "interval between the works can be applied to interval detection products. This function can inhibit a variety of interference in the process of load switching. (This time can be set at zero seconds – a few tens of seconds).
- Wide operating voltage range: Default voltage DC4.5V-20V.
- Micropower consumption: Static current <50µA, particularly suitable for battery-powered automatic control products
- · Output High Signal: Easy to achieve docking with the various types of circuit.

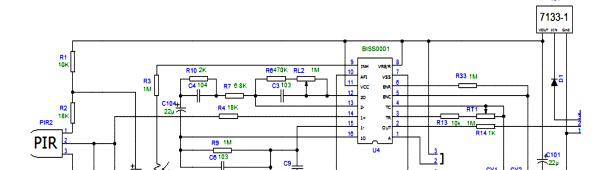
### **Adjustment**

Diagram

- Adjust the distance potentiometer clockwise rotation, increased sensing distance (about 7 meters), on the contrary, the sensing distance decreases (about 3 meters).
- Adjust the delay potentiometer clockwise rotation sensor the delay lengthened (300S), on the contrary, shorten the induction delay (5S).

#### Instructions for Use

- Sensor module is powered up after a minute, in this initialization time intervals during this module will output 0-3 times, and a minute later enters the standby state.
- Should try to avoid the lights and other sources of interference close direct module surface of the lens, in order to avoid the
  introduction of interference signal malfunction; environment should avoid the wind flow, the wind will cause interference on
  the sensor
- Sensor module with dual probe, the probe window is rectangular, dual (A B) in both ends of the longitudinal direction So when the human body from left to right or right to left through the infrared spectrum to reach dual time, distance difference, the greater the difference, the more sensitive the sensor
  - When the human body from the front to the probe or from top to bottom or from bottom to top on the direction travelled, double detects changes in the distance of less than infrared spectroscopy, no difference value the sensor insensitive or does not work
- The dual direction of sensor should be installed parallel as far as possible in inline with human movement. In order to increase the sensor angle range, the module using a circular lens also makes the probe surrounded induction, but the left and right sides still up and down in both directions sensing range, sensitivity, still need to try to install the above requirements.



C5

R32 1M

www.element14.com www.farnell.com www.newark.com

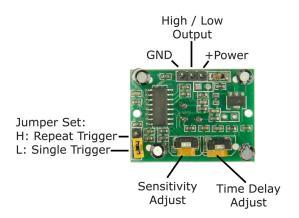
103

47µ



# **PIR Motion Detector Module**





#### **Part Number Table**

Description	Part Number
PIR Motion Detector Module, 7m, 5-20V, 120°	287-18001

Important Notice: This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. MCM is the registered trademark of the Group. © Premier Farnell Limited 2016.

www.element14.com www.farnell.com www.newark.com

