

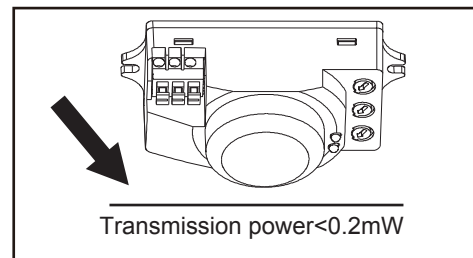
Utilizing field and introduction

PD-MV1005-Z is a moving object sensor that can detect range of 360° and it's working frequency is 5.8G. The advantage of this product is stable working state (stable working temperature: -15°C~+70°C), PD-MV1005-Z adopts a microwave sensor (high-frequency output < 0.2mW), so that it is safe and performs better than infrared sensor.

It uses the MCU to accurately calculate the switch information, and accurately controls the relay to be turned on at the zero point of the sine wave, so that each load is turned on. At the zero point of the sine wave, the inrush current problem caused by the conventional control mode when the sine wave high voltage is turned on is avoided, especially the large current damage relay generated by the large-capacity capacitor under the impact of the high voltage under the load. Due to the diversification of current electrical loads, especially LED lamps, energy-saving lamps, and fluorescent lamps all have capacitors with different capacitances. This is a disaster for relays. Sometimes a 50W LED lamp can generate surge currents of 80 to 120A. The 10A ordinary relay can only withstand 3 times of the inrush current, and it is likely that the relay will be broken in a few days or several times. This is why the conventional sensor on the market has a short life and a small load current.

In order to overcome this problem, this product adopts advanced digital precision calculation to turn on the load when the sine wave is at zero potential, thus solving the load surge current problem, greatly enhancing the load capacity and prolonging the service life of the product. The latest control method of mass production sensor technology can easily control any load. It is a medium and high-end product. Although the cost is increased compared with the conventional version, the reliability and life of the product are greatly increased. This product is equal to choosing peace of mind, and choosing safety.

Note: the high-frequency output of this sensor is < 0.2mW- that is just one 5000th of the transmission power of a mobile phone or the output of a microwave oven.

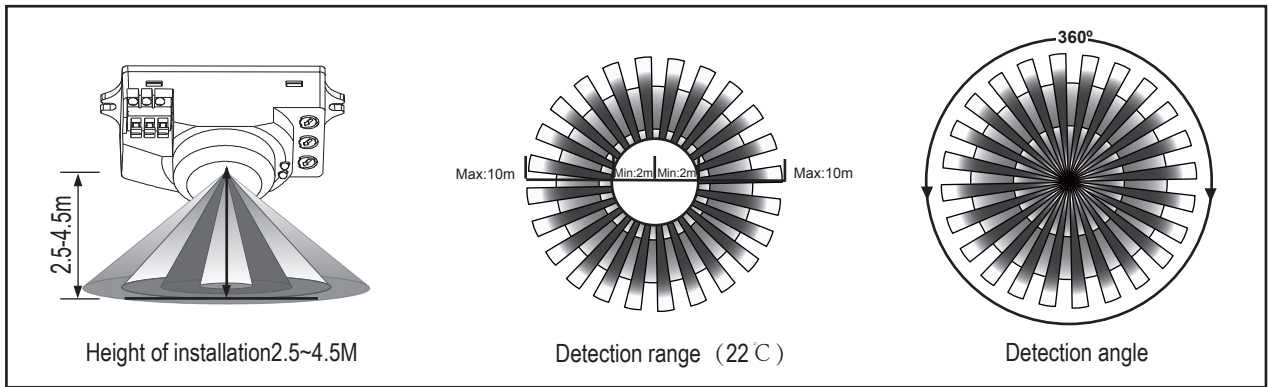


Specifications

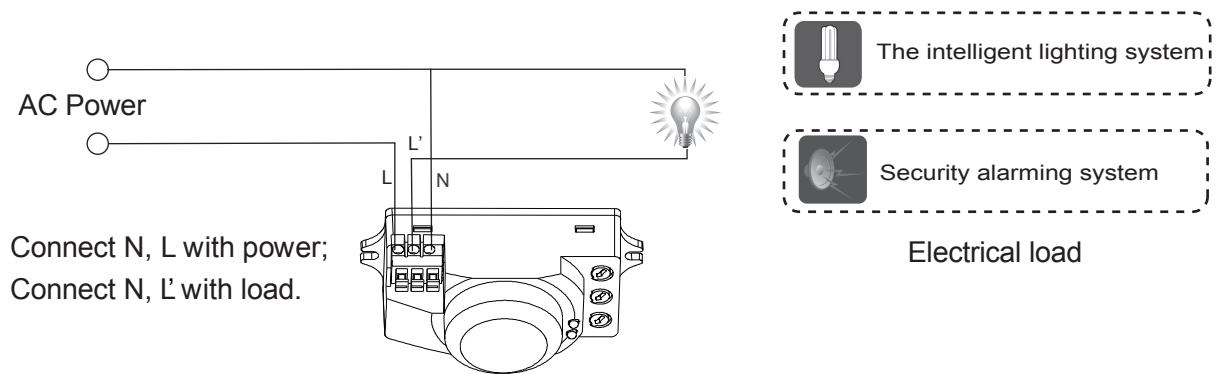
Power source: 220-240VAC 50/60Hz
Transmission power: < 0.2mW
Rated load: 1200W. any load
Installation sit: indoors, ceiling mounting
Detection angle: 360°

Detection range (22°C) : 2-10m (radii.) (adjustable)
Time setting: 8sec to 12min (adjustable)
Light-control: 2~2000LUX (adjustable)
Working temperature: -15°C~+70°C
HF system: 5.8GHz CW Electric wave, ISM band

Sensor information



It can be installed inside of product that is made of glass and plastic because that these materials make little effect to microwave. Connect the product as shows below; you can change a common light to an automatic light.



Utilized in ceiling light



This product can be utilized in more fields than the above examples. You can also install a PD-MV1005-Z in the ceiling directly to control an aisle. There is no problem.

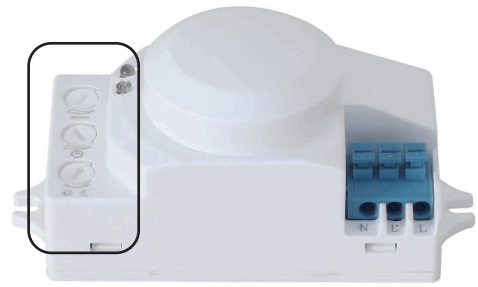
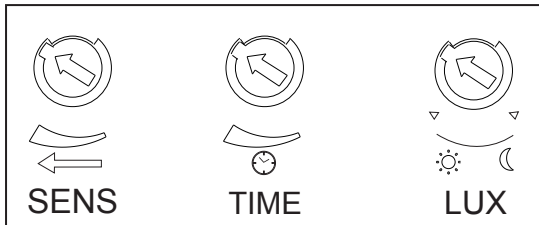
Warning!

The product can not work normally if there is metal material behind the Installed place.

Non-metal material

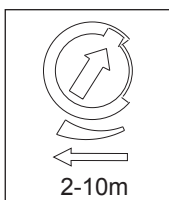
when the sensor is installed inside the ceiling floor, the sensitivity to light will be invalid.

This product will be faithfully waiting for you. It will turn on the light automatically when you pass by, and turn off the light automatically when you leave off. You can set the closing delay time to meet your needs. For example, you may adjust the TIME knob to select the delay time 12min when you think you will come back in 10mins. The TIME knob is as follow (Keep away from the detecting zone after adjusting the testing time or that the detecting time will be inaccurate when any moving object is detected again by the product).



If you want PD-MV1005-Z to detect small zone, you can just adjust the sense knob SENS to the range that you need (You may need to adjust some times until you think it is suitable). If you want that the light can be turned on when the circumstance luminance is under some value, you can just adjust the knob LUX (The working luminance knob) to select the luminance value (You may need to adjust some times until you think it is suitable).

Detection range setting(sensitivity)



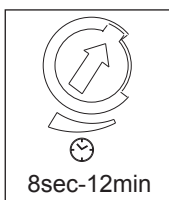
Detection range is the term used to describe the radii of the more or less circular detection zone produced on the ground after mounting the sensor light at a height of 2.5m, turn the detection control fully anti-clockwise to select minimum detection range (approx. 2m radii), and fully clockwise to select maximum detection range (approx. 10m radii).

Note: the above detection range is gained in the case of a person who is between 1.6m~1.7m tall with middle figure and moves at a speed of 1.0~1.5m/sec. if person's stature, figure and moving speed change, the detection range will also change.

ATTENTION: When use this product, please adjust the sensitivity to an appropriate position you need, please do not adjust the sensitivity to maximum, to avoid the product does not work normally caused by wrong motion. Because the sensitivity is too high easily detect the wrong motion by wind blowing leaves & curtains, small animals, and the wrong motion by interference of power grid & electrical equipment. All those lead the product does not work normally !

When the product does not work normally, please try to lower the sensitivity appropriately, and then test it.

Time setting



The light can be set to stay ON for any period of time between approx. 8sec (turn fully anti-clockwise) and a maximum of 12min (turn fully clockwise). Any movement detected before this time elapse will re-start the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test.

Note: after the light switches OFF, it takes approx. 1sec before it is able to start detecting movement again. The light will only switch on in response to movement once this period has elapsed.

Light-control setting



The chosen light response threshold can be infinitely from approx. 2-2000lux. Turn it fully anti-clockwise to select dusk- to-dawn operation at about 2 lux. Turn it fully clockwise to select daylight operation at about 2000lux. The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight.

Note: please don't adjust the three functional buttons to excess. That is because the three functional buttons were connected to the components directly, there is a small stopper in each of the three components, when you adjust the buttons from start to end, the excessive turn will damage the stopper, and lead to the 360°non-stop turn around. The adjust range limit is 270°, please do pay attention to this.



Warning! The following situation will lead to misoperation

1. Being installed in the rocking object will lead to misoperation.
2. The shaking curtain which is blown by wind will lead to misoperation, please select the suitable installed place.
3. Being installed in the place where the traffic is busy will lead to misoperation.
4. It will lead to misoperation when there are sparks produced by some equipment nearby.

Troubleshooting

Malfunction	Cause	Remedy
The load will not work	• wrong light-control setting selected	• Adjust setting
	• load faulty	• Change load
	• mains switch OFF	• Switch ON
The load work always	• continuous movement in the detection zone	• Check zone setting
The load work without any identifiable movement	• the sensor not mounted for detecting movement reliably	• Securely mount enclosure
	• movement occurred, but not identified by the sensor(movement behind wall, movement of a small object in immediate lamp vicinity etc.)	• Check zone setting
The load will not work despite movement	• rapid movements are being suppressed to minimize malfunctioning or the detection zone you have set is too small	• Check zone setting

If you want use PD-MV1005-Z as a single, you can also order the shell which is especially manufactured for the product to be installed in, or you can select the product PD-MV1005-Z-A directly. The protection grade of PD-MV1005-Z-A is IP55, so PD-MV1005-Z-A is better than PD-MV1005-Z with the higher water proof quality.

Application places (According to customer's need selected.)

Concise modeling ,and the shell increases the IP CODE.

