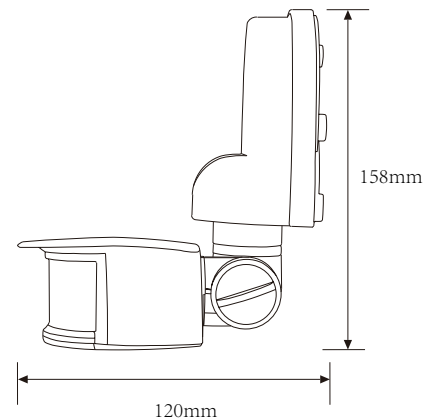
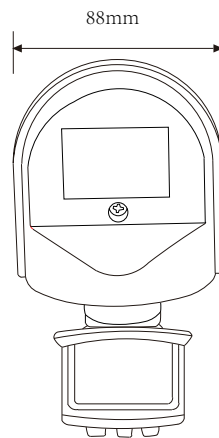


PD-PIR107-Z Infrared Motion Sensor Instruction



Summary

This product is an advanced digitally controlled infrared pyroelectric intelligent sensor product. 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.

This product has a switching power supply version and a capacitor step-down version. The switching power supply version has a working voltage of up to 100V-277V and a standby power consumption of <0.5W. In principle, the capacitive step-down version can only have a single voltage, and the standby power consumption is >0.7W. You should consider it when choosing a product.

Specifications

Power source: 220-240V/AC 50Hz/60Hz
100-130V/AC 50Hz/60Hz

All loads: 1200W (220-240VAC)
800W (100-130VAC)

Detection range: 12m max. (22°C) (adjustable)

Detection angle: 180°

Working temperature: -10°C - +40°C

Working humidity: <93%RH

Time setting: 10sec-12min (adjustable)

Light-control: < 10LUX-2000LUX (adjustable)

Detection motion speed: 0.6-1.5m/s

Installation height: 1.8m-2.5m

Function

LUX adjustment:

LUX refers to the illuminance of the environment. Adjusting the LUX adjustment knob allows you to choose which illuminance you want to get the sensor into the induction. Choose the habit that suits you.

Some of the choices in the 20LUX solution are to be illuminated. Some choose 50LUX ambient illumination to be inductive lighting, and some choose to be inductive lighting at any time, as long as the LUX adjustment knob is adjusted to the maximum.

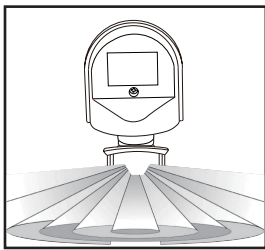
Time adjustment:

The time adjustment knob is used to adjust the time after the sensor senses the light, and the user can reasonably select the delay time after the induction.

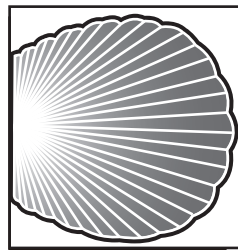
Feature

- Can identify day and night automatically, and the light-control of starting work can be adjusted, so it works at night automatically and stops in the daytime.
- Time setting can be adjusted varying with the place.
- The time setting can be adjusted vary to the place.
- The light-time can add automatically. When human moved in the detection fields under the lamp lighting, it can compute time once more and delay the light-time automatically after it detects the signal each time.

Sensor information

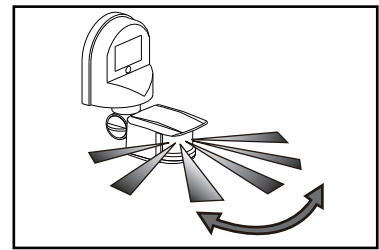


Height of installation 1.8-2.5m



12m

Detection range (22°C)



180°

Detection Angle

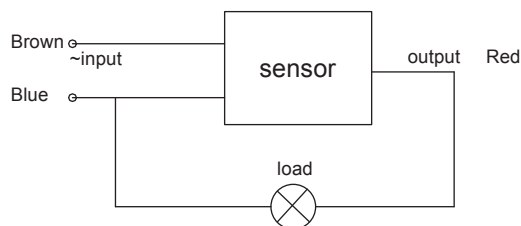
Connection-wire diagram

L Brown

N Blue

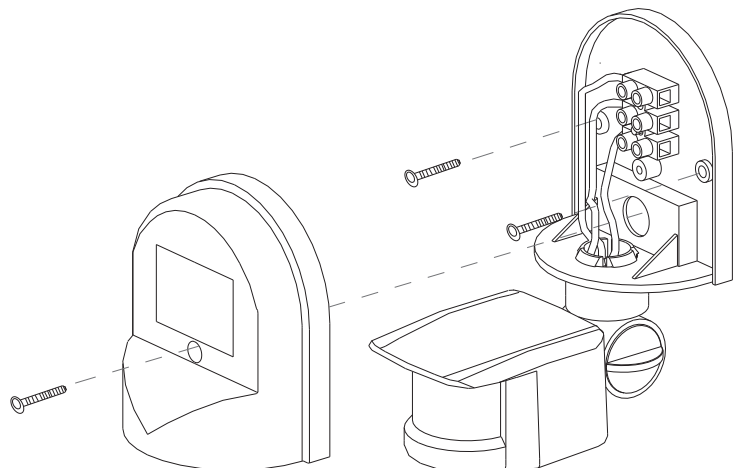
L' Red

connect L and N with power;
connect L' and N with load.



Installation

1. Please tighten off the screw on the connection-line box, take off the box lid.
2. According to the connection figure connect the power and load with the sensor.
3. Fix the sensor in the selected position like the following diagram.
4. Please cover the lid and tighten the screw.



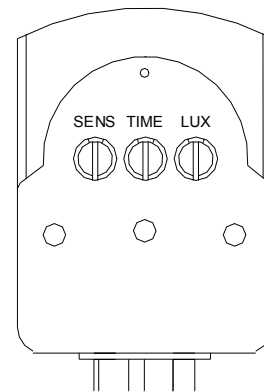
Test

1. Time setting adjustment knob(TIME): the user can select time delay according to his desire, normally when installing and measuring, adjusting the time knob to the minimum can make installation simple and convenient. After installing you can select the lighting time between 10sec and 12min. when setting time and confirming the testing time, make the sensor head downward, lest that in front of it there is moving signal to make the set time inexact.
2. Light adjustment knob(LUX): with the knob users can select certain ambient light(day~light) that the sensor induct automatically. Usually 10ux is the night value, and 100LUX~2000LUX should be the day value.
3. So when setting time for the first, the user can repeat to adjust the LUX knob according to desire until it is your need.
4. Sensitivity adjustment knob SENS(detection distance adjusting knob): the product's longest detection distance is 12m, it is the longest distance when the ambient temperature is 22°C. if the temperature is too high, the detection distance will shorten. The sensitivity in winter is very high, and in summer it is lower. User can adjust the SENS knob according to the using coverage so that the sensor lamp induct automatically in the needed distance.

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.

Attention:when testing it in the daytime, you should adjust the LUX knob to the position, otherwise the sensor will not induct the lamp on!



Special attentions

1. Avoid installing the unit on the wagging object, for example the tree, etc. because the wagging will lead the sensor to induct; falsely and make the lamp on.
2. Avoid installing the unit where the sunshine is exposed directly.
3. Don't install the unit where there is much rain. Because the induction sensitivity will reduce where there is much rain.
4. Don't make the unit facing the public road, because the person moving on the public road and the high temperature gas also probably lead the lamp on.
5. The unit's sensitivity is very high to human body's moving breadthwise. but it is very low to moving frontal. So when installing it , you should select a position that a moving object can move breadthwise with the sensor, so that the sensor work reliably.

Some problem and solved way

1. **The load do not work:**
 - a: Please check if the connection-wiring of power and load is correct;
 - b: Please check if the load is good ;
 - c: Please check if the working light set correspond to light-control.

2、 The sensitivity is poor:

- a: Please check if there has hinder in front of the detection window to effect to receive the signal;
- b: Please check if the ambient temperature is too high;
- c: Please check if the induction signal source is in the detection fields;
- d: Please check if the installation height corresponds to the height showed in the instruction;
- e: Please check if the moving orientation is correct.

3、 The sensor can not shut off the load automatically:

- a: Please check if there is continual signal in the detection field;
 - b: Please check if the time setting is the longest;
 - c: Please check if the power correspond to the instruction;
- d: Please check if the temperature near the sensor change obviously, such as air condition or central heating etc.



Warning!

- **Please confirm with professional installation.**
- **Please cut off power supply before installation and removal operations.**
- **Make sure that you have cut off the power for safety purposes.**
- **Improper operation caused losses, the manufacturer does not undertake any responsibility.**

This manual is for the current content programming of this product, there are any changes and modifications to the manufacturer without notice!

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