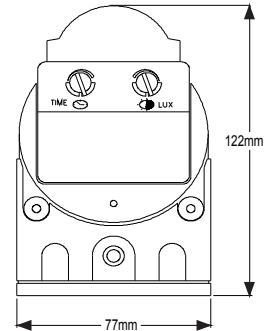
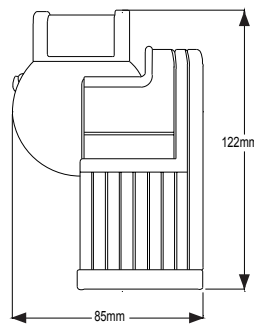


# PD-PIR125-Z Infrared Motion Sensor Instruction



## Summary

This product is an advanced digitally controlled infrared pyroelectric intelligent sensor product. This product uses one high-resolution sensor that is almost twice the sensitivity of a single traditional 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.

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 <math><0.5W</math>. 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: 220-240VAC,50Hz/60Hz   
100-130VAC,50Hz/60Hz

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

Time setting: 10sec-12min (adjustable)

Light-control: <math><10LUX\sim 2000LUX</math>(adjustable)

Detection angle: 140°  180°

Detection range: 12m Max(22°C)

Working temperature: -10°C~+40°C

Working humidity: <math><93\%RH</math>

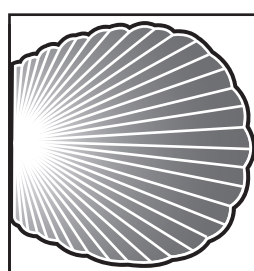
Installation height: 1.8m~2.5m

Detection motion speed: 0.6~1.5m/s

## Sensor information



Height of installation 1.8-2.5m



12m  
Detection range (22°C)



140°/180°  
Detection angle

## 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.

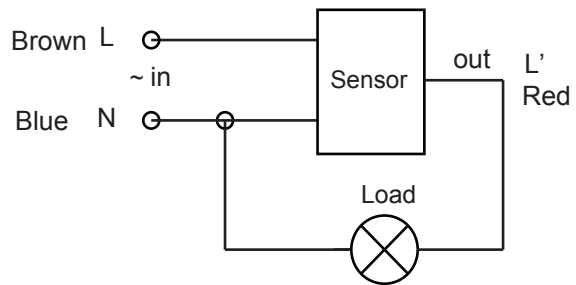
## Connection-wire diagram

L Brown

N Blue

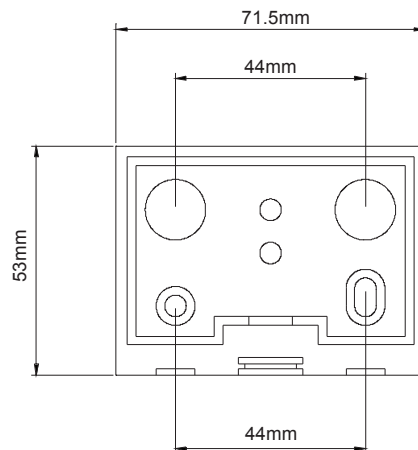
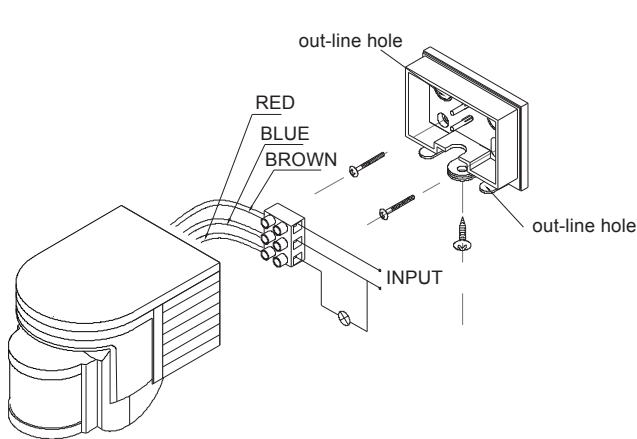
L' Red

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



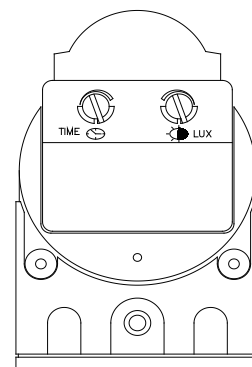
## Installation

- 1、 Switch off the power;
- 2、 Screw off the nail on the bottom. Open the wire hole. The power wire and the load wire are bored in the bottom;
- 3、 The bottom is fixed on the selected position with the inflated screw;
- 4、 Connect the power and the load with the connection-wire column according to the sketch diagram;
- 5、 The sensor is fixed on the bottom, please screw the nail and connect the power. Then you can test it.



## Test

- Turn the LUX knob counterclockwise to the maximum (SUN) and turn the TIME knob counterclockwise to the minimum;
- Turn on the power and enter the working state after 30 seconds;
- When the load is extinguished for the first time, it will be perceived again after 5 seconds, the load should work, and the load should stop working in about 10 seconds;  
Rotate the LUX knob clockwise to the minimum. If the test is performed when the light control value is greater than 10 LUX, the inductive load does not work after the load stops working.  
If the inspection window is covered with an



opaque object (towel, etc.), the load should work. Under the condition of the sensing signal, the load will stop working in about 10 seconds.

## Note

- Electrician or experienced human can install it;
- The unrest objects can't be regarded as the installation basis-face;
- In front of the detection window there should be no hinder or unrest objects effecting detection.
- Avoid installing it near air temperature alteration zones for example: air condition, central heating, etc
- For your safety, please don't open the case if you find the hitch after installation;
- In order to avoid the unexpected damage of product, please add a safe device of 6A when installing infrared sensor for example: fuse, safe tube etc.

## Some problem and solved way

### 1、 The load don't work:

- a: Check the power and the load;
- b: If the load is good;
- c: Please check if the working light correspond to the light-control.

### 2、 The sensitivity is poor:

- a: Please check if in front of the detection window there is hinder that effect it to receive the signals;
- b: Please check the ambient temperature;
- c: Please check if the signals source is in the detection fields;
- d: Please check the installation height;
- e: If the moving orientation is right.

### 3、 The sensor can't shut automatically the load:

- a: If there are continual signals in the detection fields;
- b: If the time delay is set to the longest;
- c: If the power correspond to the instruction;
- d: If the air temperature change near the sensor, for example 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.

We are committed to promoting the product quality and reliability, however, all the electronic components have certain probabilities to become ineffective, which will cause some troubles. When designing, we have paid attention to redundant designs and adopted safety quota to avoid any troubles.

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