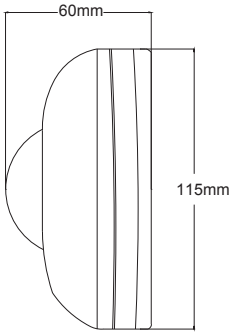
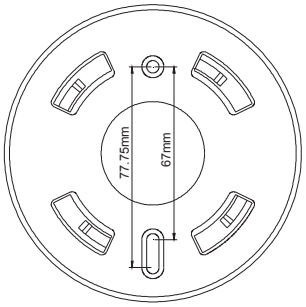
PD-PIR120-Z Infrared Motion Sensor Instruction





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 <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

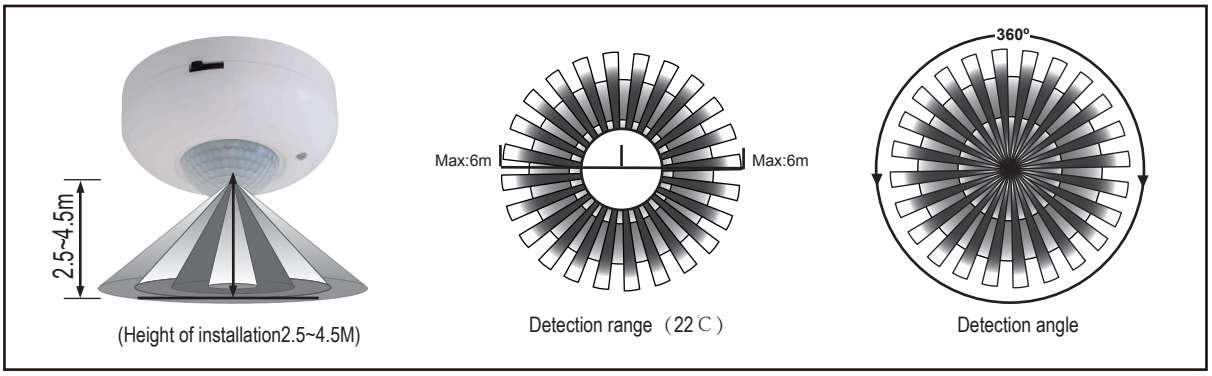
Power source: 220-240VAC 50Hz/60Hz ☐
100-130VAC 50Hz/60Hz ☐
All loads: 1200W Max. (220-240VAC)
800W Max. (100-130VAC)
Time setting: Min: 5sec Max: 6min±5s (adjustable)
Light-control: <10LUX(adjustable)

Detection range: 6m Max （radii.) (22°C)
Detection angle: 360°(top view)
Working temperature: -10°C~+40°C
Working humidity: <93%RH
Installation height: 2.5m~4.5m
Detection speed: 0.6 ~1.5m/s

Function

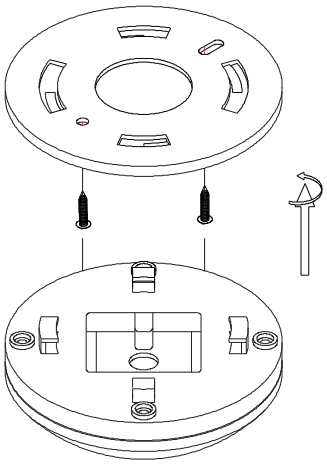
- Can identify day and night automatically: The light-control can be adjusted freely according to consumer's desire when it works. It can work in the daytime and at night when you turn the switch to the "TEST" position. It can work only in the less than 10LUX light-control when you turn it to the "2", "3", "4" position. As for the adjustment pattern, please refer to the testing pattern.
- Power and detection indication: The indicator lamp is green when you switch on the power and it is red when sensor receives the induction signals. So it can show if the power and detection are normal.
- Time setting is adjustable: time setting can be set freely according to consumer's desire. Turn the switch clockwise. The "1" position (the minimum time) is about 5sec. "2" position is about 30sec, "3" position is 2min±5sec, "4" position is 6min±5sec.

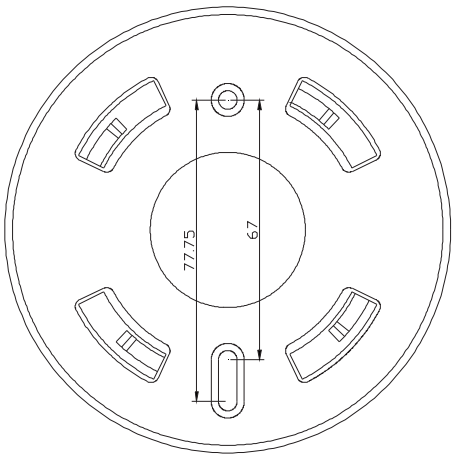
Sensor information



Installation(see the following figure)

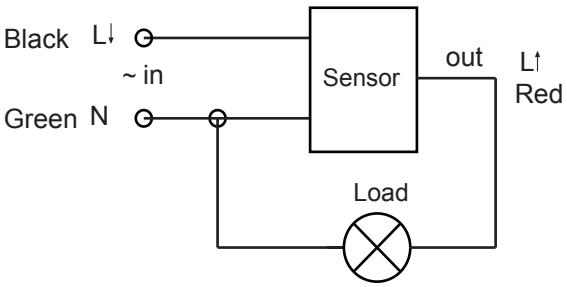
- Switch off the power.
- Turn clockwise the bottom-stand and take off it. The power wire cross the hole in the middle of bottom-stand.
- The bottom-stand is fixed on the selected position with inflated screw.
- Connect the power and the load into the connection-wire column of the sensor according to connection-wire diagram.
- The sensor aimed at the mouth of bottom-stand and turned anti-clockwise.





Connection-wire diagram

L↓ Black
N Green
L↑ Red
connect L↓ and N with power;
connect L↑ and N with load.

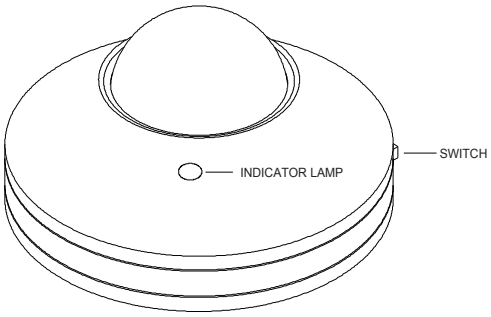


Test

- Turn the switch to the "1" position.
- When the power is turned on, the indicator light is red and flashes for 30 seconds, then enters the working state, and the indicator turns green.
- When the load is extinguished for the first time, make it sense again after 5sec, the load should work and the indicator lamp is red. The load should stop to work within 5sec.
- Turn the switch to the "2" position. The inductor load shouldn't work in the ambient-light more than 10lux. If you cover the detection window with the opaque objects (towel elc), the load should work. Under the no inductor signals condition, the load should stop working.within 25~35sec.

Note

- Electrician or experienced human can install it.
- The unrest objects can't be regarded the installation basis-face.
- In front of the detection window there aren't hinder or unrest objects effecting detection.
- Avoid installing it near air temperature alteration zones for example: air condition, central heating, etc.
- Please don't open the case for your safety if you find the hitch after installation.
- If there are some difference between instruction and the function the product has, please give priority to product and sorry not to inform you additionally.



Some problem and solved way

- **The load don't work:**
  a: Check the power and the load;
  b: If the load is good;
  c: If the indicator lamp is green;
  d: Please check if the working light correspond to the light-control.
- **The sensitivity is poor:**
  a: Please check if in front of the detection window there is hinder that effect to receive the signals;
  b: Please check the ambient temperature;
  c: Please check if the signals source is in the detection field;
  d: Please check the installation height;
  e: If the moving orientation is correct.
- **The sensor can't shut automatically the load:**
  a: If there are continual signals in the detection fields;
  b: If the time setting 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 prefessional 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.