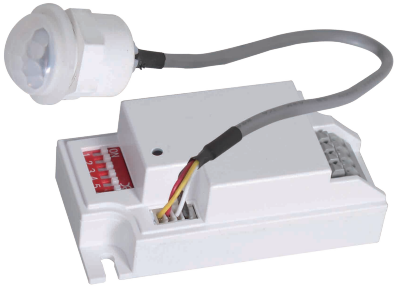
LX-PR-M16
Infrared Sensor Instruction



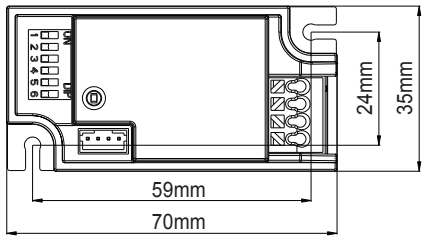
Summary

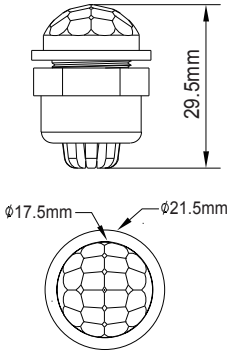
This product is an advanced digitally controlled infrared pyroelectric intelligent sensor product.It uses the MCU to accurately calculate the switch information, and accurately controls the relay to be turned on at the zero point of the sine wave, so that each load is turned on. At the zero point of 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.

Product size

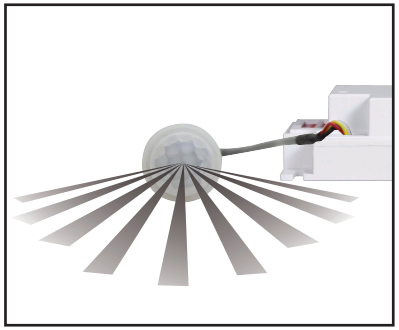


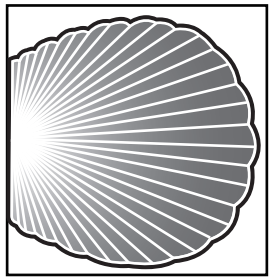


Specifications

Power source: 220-240VAC 50Hz/60Hz ☐
100-130VAC 50Hz/60Hz ☐
All loads: 1200W (220-240VAC)
800W (100-130VAC)
Time setting: 10s、2 Min、6 Min、12 Min(adjustable)
Light-control: 10LUX、50LUX、150LUX、＞300LUX (adjustable)
Detection range: 8±1m (22°C) (adjustable)
Detection angle: 100°
Working temperature: -10~+40°C
Working humidity: ≤93%RH

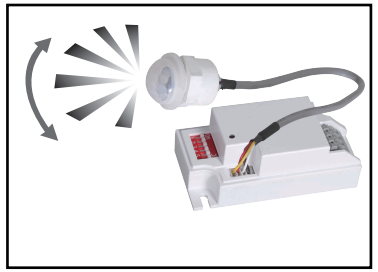
Sensor information





8±1m (22°C)

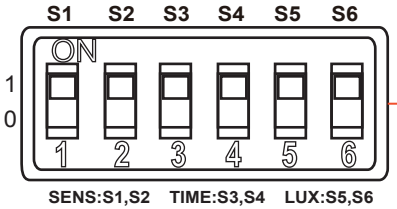
Detection range



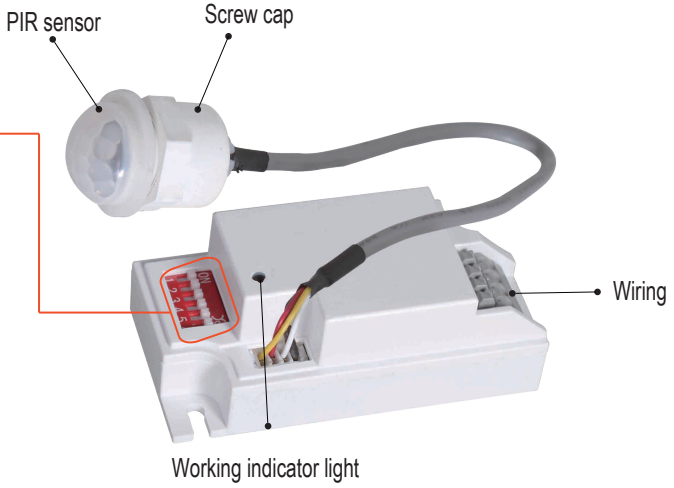
100°

Detection angle

Name of each part



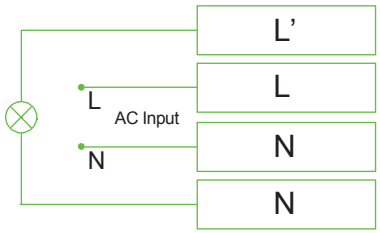
DIP switch



The nuts design at the head of the sensor makes it more convenient to fix on the installation object. There is also wiring for fixing made of plastic at its bottom in order to add its strength when being installed.

Function

1.Adopts 6-bit DIP switch:
·You can select working light to work only in the light below 10lux or in any light;
·Adjustable sensitivity;
·Choose working time-delay of the load: 10s, 2Min, 6Min, 12Min;
2.The time that the load work can delay automatically: it re-computes time after the last sensing;
3.Out connect infrared detector and sensitization resistor;
4.Simple structure and using convenient.



S1 S2

S1	S2	Detection range
0	0	25%
0	1	50%
1	0	75%
1	1	100%

S3 S4

S3	S4	Time setting
0	0	10s
0	1	2min
1	0	6min
1	1	12min

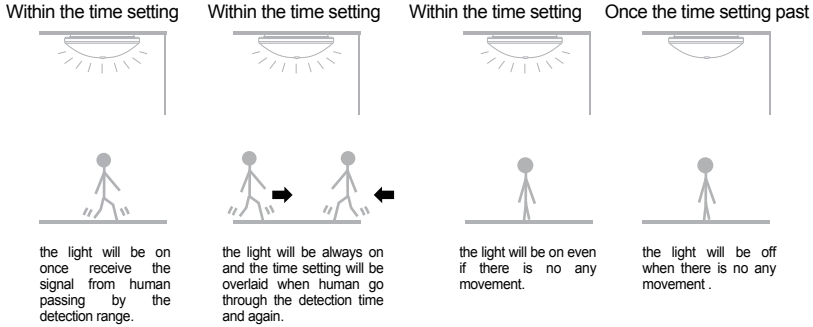
S5 S6

S5	S6	Light-control
0	0	10 LUX
0	1	50 LUX
1	0	150 LUX
1	1	＞300 LUX

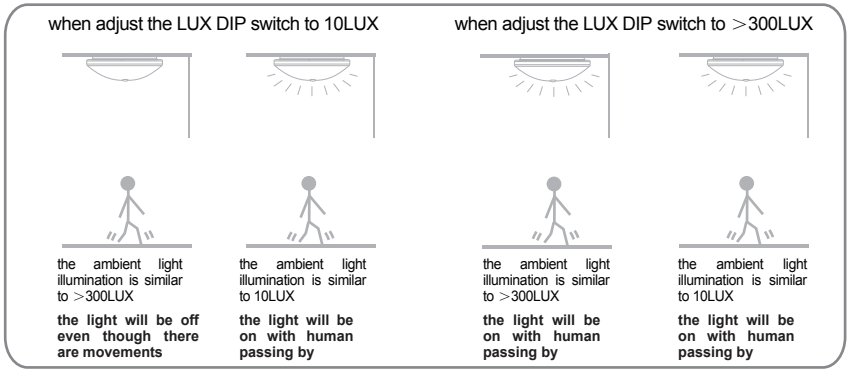
NOTE:The maximum detection distance: 8 ± 1m

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.

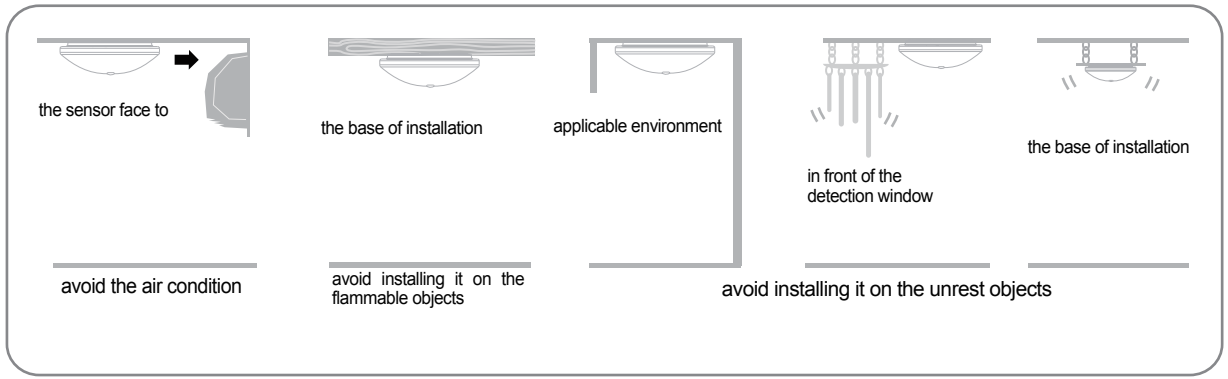
Operating principle of time setting

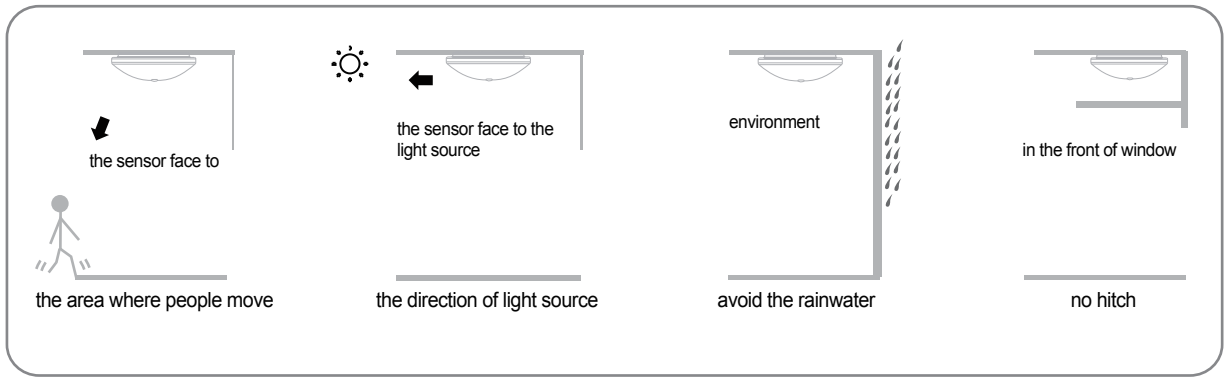


Operating principle of the light-control



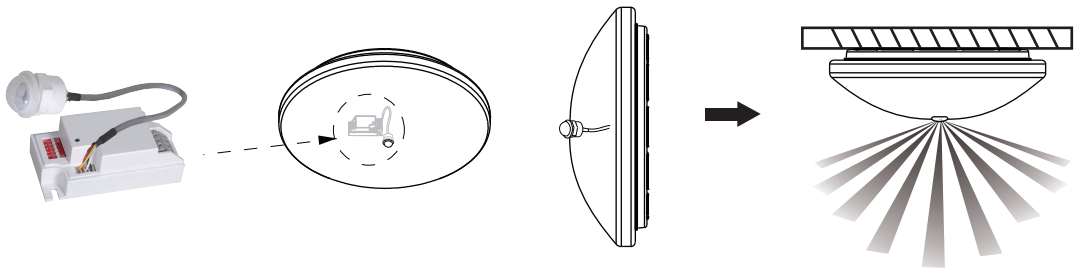
Pay attention to installation





For occasions

It can be installed in indoor, corridor and public-building.
Installed inside on the device with non-metallic materials.
Eg, add the sensor, from one normal lighting to automatic sensor lamp.



Attention

·The installing personnel should be electrician or with correlation experience;
·Be sure not to install the unit in the place where sun shine, current and temperature change obviously, for example air conditioning, air warm;
·Do not choose the sway object as installing base;
·In front of sense range there should be no obstruction or moving object to influent its detecting.

Remark

1. Keep the sensor face to the area where human usually move.
2. Keep the sensor face to the position of the ambient light in order to get much more exact illuminance setting.
3. If detect the signal again within the time setting, the time setting will be over lied.

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.