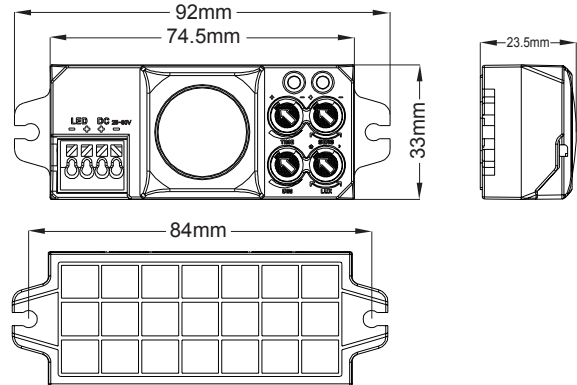


PD-MV1017MD-B Microwave Sensor Instruction



Summary

PD-MV1017MD-B is a hi-precision digital microwave sensor whose detection range is 360° and working frequency is 5.8GHz. It applies Doppler principle to emit & receive signals. It adopts MCU (Micro Control Unit) that greatly increases its precision and decreases its fault rate. It's delicate in appearance and compact in structure. It can be independently connected to the loads or easily installed inside the lightings with the non-metal lampshade. It is widely applied in the passageway, washroom, elevator, household or other public areas for security protection or energy saving. It possesses several technical patents and is the perfect choice for your intelligent living.

Features

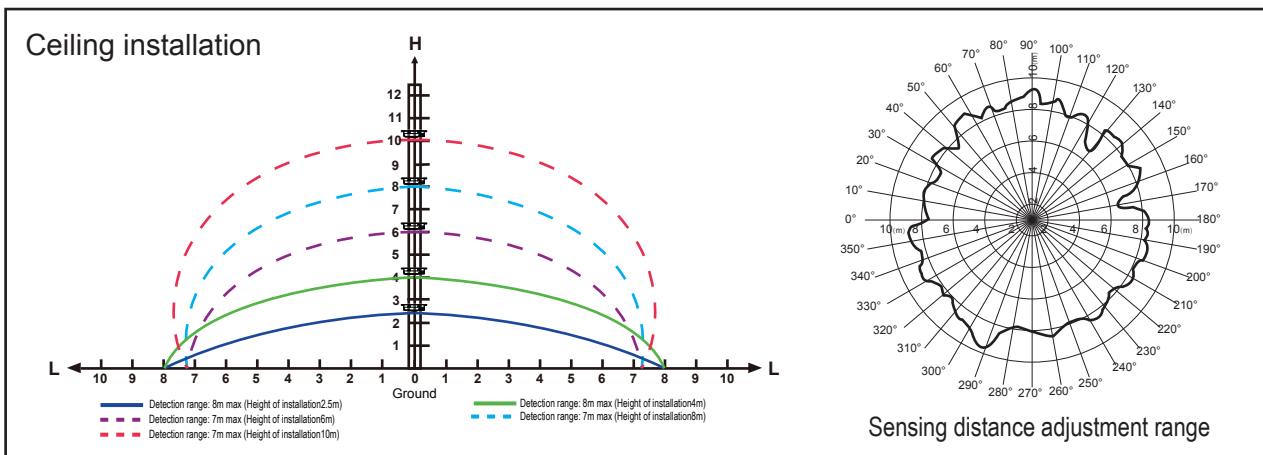
- 1.Non-radiation harm:** its transmitter power is less than 0.3mW, which does no harm to human body.
- 2.LED specialized dimmable sensor:** auto start dimming mode at night without motion signal; auto exit when ambient light is over 100 lux.
- 3.Percentage dimmable range:** 0%~10%.

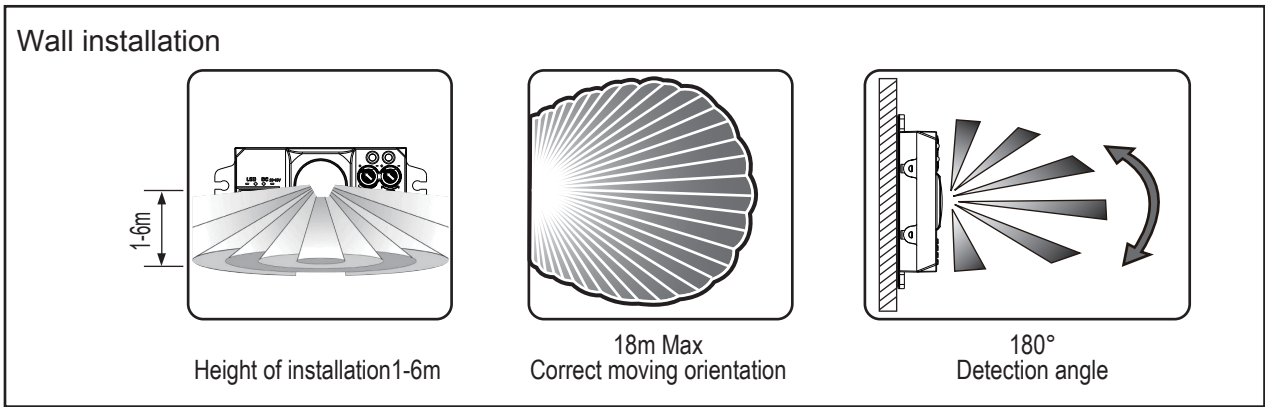
Specifications

Power source: DC 25-80V
 Output current: <3A
 Transmission power: <0.3mW
 Working temperature: -15°C~+70°C
 Protection level: IP20, Class 2
 Installation sit: indoors, ceiling mounting

HF system: 5.8GHz CW electric wave, ISM band
 Detection angle: 360° (ceiling mounting)
 Detection range: 1-8m (radial) (adjustable)
 18m Max. (adjustable) (wall mounting)
 Time setting: 8sec-12min, (adjustable)
 Light-control: 10-1000LUX, (adjustable)

Sensor information





Applications

Microwave can penetrate the glass, plastic and wood, thus the microwave sensor can be installed inside the non-metal shade. For example, the application in LED lightings, only if making connection as below shown can you change the common LED lightings into auto-sensing ones.

How to make connection:

LED “+” “-”: connect to LED panel

DC “+” “-”: connect to DC power (DC 25~80V)

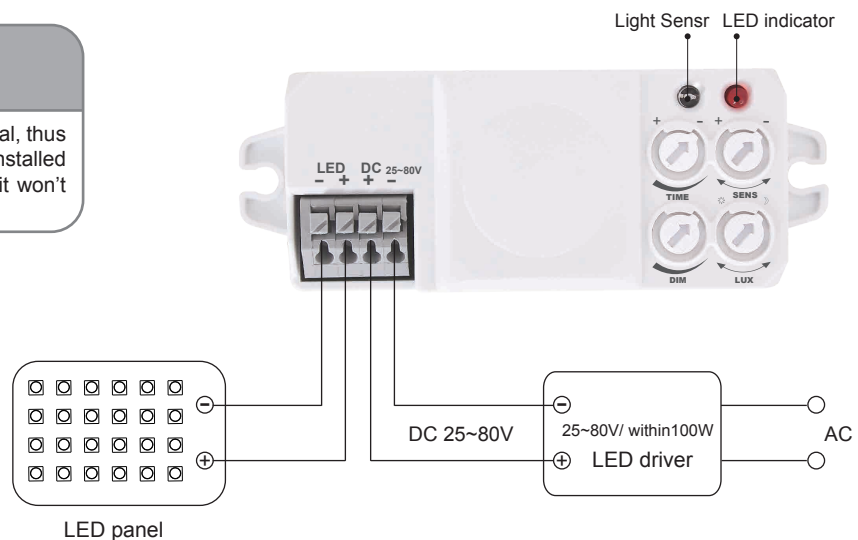
LED drive power requirements: Output voltage range is between 25~80V, constant power supply with power within 100W.

Notice: Due to the sensor is connected with driver power output and use PWM to adjust light, so it has special requirements of driver power supply mode. Commonly installed with current sampling LED driver. If the light worked unstable or in low brightness, it is due to the LED driver not matched with sensor. So the user must choose the appropriate driver with sensor.

If you found the brightness of light is going light up and decline slowly or have strobe phenomenon in low brightness during the testing. This is not a problem from sensor, it's due to the driving power not matched with sensor, please replace the driver to solve the situation.

Warning!

Microwave will be reflected by the metal, thus the microwave sensor cannot be installed inside the shade made of metal, or it won't work normally.



Setting manner one: potentiometer

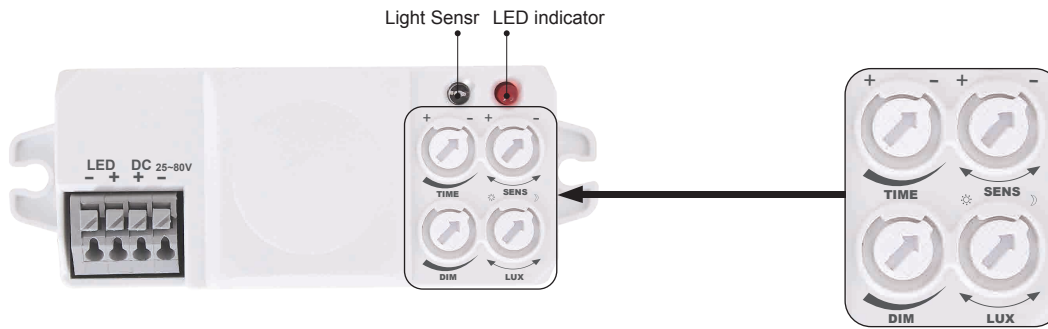
It may take times to adjust values before they satisfy your need.

LED indicator:

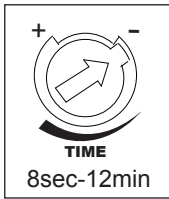
- (1) When you perform any adjustment of potentiometers, LED indicator lights on.
- (2) When you perform any adjustment of potentiometers, 1 second after finishing adjustment LED indicator flashes twice and be off, then the system will memorize and auto-compute the exact function to the adjustment.

Pay attention!

Keep slow when turning the potentiometers, during this process, it will auto-compute the exact function following the adjustment. Otherwise, you will miss the perfect function to the adjustment.

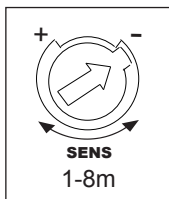


(1)Time setting



When motion signal detected, the LED lamp controlled be auto on. And if there is no signal during the delay time (8s ~12min), it be auto off and you're expected to wait for 4 seconds before the next detection. And any motion signal detected during the customer-defined time will lead the system re-compute the time. It is suggested you choose the minimum time during test to save energy & time.

(2)Detection range setting(sensitivity)



Detection range is the term used to describe the radii of the roughly circle casting on the ground when installed at the height of 2.5 m. To turn fully anti-clockwise is the minimum distance (approx. 1m), fully clockwise is the maximum (approx. 8m). If person's stature, figure and moving speed change, the detection will also change, that is, the higher speed will lead to the shorter detection distance.

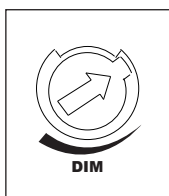
Notice: when using this product, please adjust the sensitivity (detection range) to an appropriate value but the maximum to avoid the abnormal reaction caused by the easy detection of the wrong motion by the blowing leaves & curtains, small animals or the interference of power grid & electrical equipment. All the above mentioned will lead to the error reaction. When the product does not work normally, please try to lower the sensitivity appropriately, and then test it.

(3)Light-control setting



It can be defined in the range of 10~1000 LUX. To turn fully anti-clockwise is about 10 lux, fully clockwise is about 1000 lux. You are supposed to turn fully clockwise during the daytime walking test or adjustment of detection range, in this case, the LED lamp controlled will keep on however the ambient light is.

(4)Percentage dimmable lighting



It can be defined in the range of 0%~10%. When the ambient light is less than 70 lux, the system starts dimming mode. If there is no signal detected during the delay time, it will enter the percentage lighting. Once signal detected, it recovers to 100% lighting. It will auto exit dimming mode, when the ambient light is over 100 lux. The dimming mode works digitally and independently.

 **Warning!** The following situations will lead to error reaction.

- 1、 Being installed on the rocking object will lead to error reaction.
- 2、 The shaking curtain blown by wind will lead to error reaction. Please select the suitable place to install.
- 3、 Being installed where the traffic is busy will lead to error reaction.
- 4、 The sparks produced by some equipment nearby will lead to error reaction.

Fault and the solution

Fault	Failure cause	Solution
The load fails to work.	Light-illumination is set incorrectly.	Adjust the setting of the load.
	The load is broken.	Change the load.
	The power is off.	Turn the power on.
	The motion speed is too fast or or the motion direction is wrong.	Change the motion direction or speed.
The load works all the time.	There is a continuous signal in the region of the detection.	Check the settings of the detection area.
The load works when there is no motion signal detected.	There are disturbing signals around.	Check if there are moving objects caused by the blowing wind.
Lamplight flashes when start or exit dimming mode	LED driver fails to meet the requirements.	Change the suitable LED driver.

 **Warning!**

- Please confirm with professional installation.
- For safety purposes, please cut off power before installation and removal operations.
- Any losses caused by improper operation,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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