



FEATURES

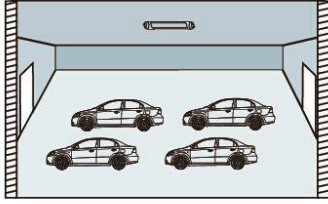
- Adopting new bipolar antenna, small cut size, and strong adaptability to working environment.
- Built-in microwave module and daylight sensor, 12V DC input and 0-10V Dimming Signal output.
- Cut size: 10mm x 40mm, suitable for many kinds of linear lights.

TECHNICAL DATA

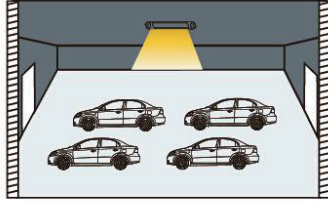
Input	Voltage Range	12±1VDC		
	Operating	12V DC		
	Rated Voltage	<25mA		
	Voltage Ripple	<100mVp-p		
Output	0-10VDC Dimming Signal	YES		
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz, ISM Wave Band.		
	Transmitting power	1mW Max.		
	Detection Area	25%/50%/75%/100%(set by infrared remote control MH10 / MH12)		
	Hold Time	5S/30S/1min/3min/5min/10min/20min/30min (set by infrared remote control MH10 / MH12)		
	Stand-by Period	0s/10S/1min/3min/5min/10min/30min/+∞ (set by infrared remote control MH10 / MH12)		
	Daylight Sensor	Normal	5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable	
			ON	OFF
		Daylight Priority:	5lux/15Lux/30Lux/50Lux	150Lux
			100Lux	200Lux
	150Lux	300Lux		
	Stand-by DIM Level	10%(1.4-1.6V), 20%(1.9-2.1V), 30%(2.9-3.1V), 50% (4.9-5.1V)		
	Detecting Radius (Detection Area: 100%)	Ceiling Mounting at 3m: 0.3m/S	≥3m, 1m/S ≥3m	
		Wall Mounting at 2m: 0.3m/S	≥8m, 1m/S ≥4m	
Mounting Height	2.5-6m 6m Max			
Detecting Angle	130°@Xz filed / 90°@Yz filed			
Environment	Operating Temperature	-25~70℃		
	Storage Temperature	Temperature: -40℃~+80℃; Humidity ≤85%		
	IP Rating	20		

FUNCTION

1) On/OFF Function (set Stand-by Period to "0s")



1 With sufficient ambient light, the light will not be switched on even if with motion signal.

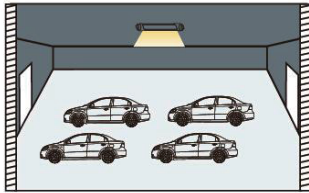


2 With insufficient ambient light, the sensor switches on the light when motion is detected.

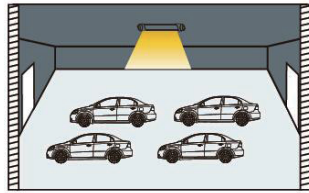


3 After elapse of hold time, the sensor switches off the light when no motion is detected.

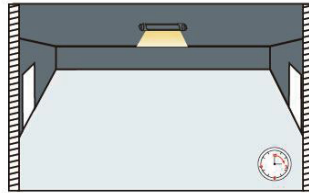
2) 2-step Dimming Function (set Stand-by Period to "+∞")



1 If there is no motion detected, the light will be remained at a low light level all the time.

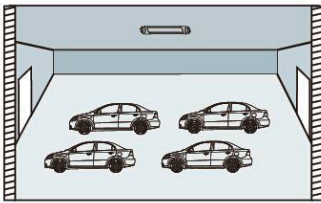


2 When motion is detected, the sensor will switch on the light to 100% brightness

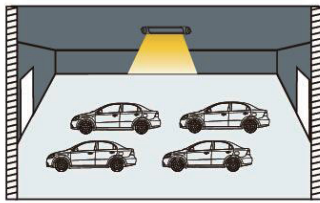


3 After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

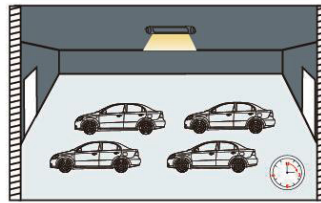
3) 3-step dimming function (stand-by period be set to "10S/1min/3min/5min/10min/30min")



1 With sufficient ambient light, the light will not be switched on even if with motion signal.



2 With insufficient ambient light, the sensor switches on the light when motion is detected.

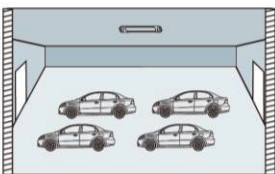


3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.

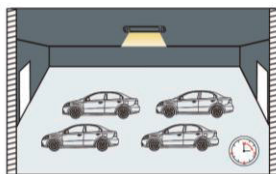


4 After elapse of standby period, the sensor switches off the light if no motion is detected in the detection zone.

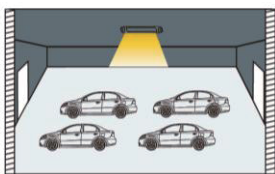
4) 4) Daylight Priority (stand-by period be set to "+∞", and MH10 remote control long press 3S "DH Mode", other sensor parameters can be set actual needs)



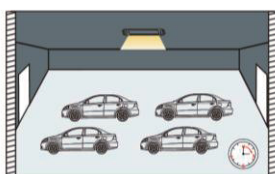
1 With sufficient ambient light, the light will not be switched on even if with motion signal.



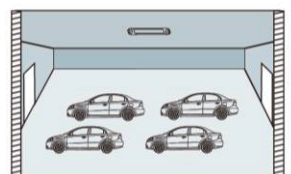
2 When the ambient light is insufficient, the lamp will turn on and enter the low light state (standby level).



3 With insufficient ambient light, the lamp goes on full light when a mobile signal is detected.



4 After hold time, if no moving is detected in the detection area, the lamp will automatically turn to standby brightness.

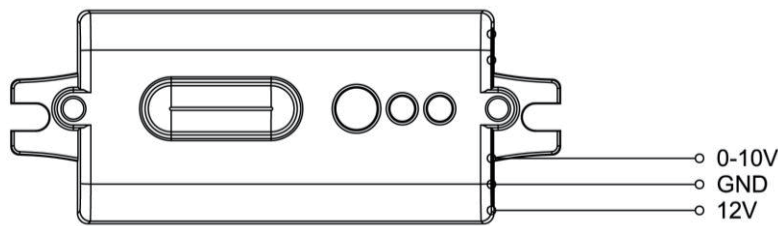


5 After standby time, if no moving object is detected in the detection area and the ambient light is sufficient, the lamp will turn off automatically.

ORDERING INFORMATION

Model No.	Description	Input Voltage	Output	Mounting
BMS-MC087D-MSW-DC	Bi-level Microwave (MSW) Occupancy Sensor	12VDC	0-10VDC	Built-in Mount

WIRING DIAGRAM

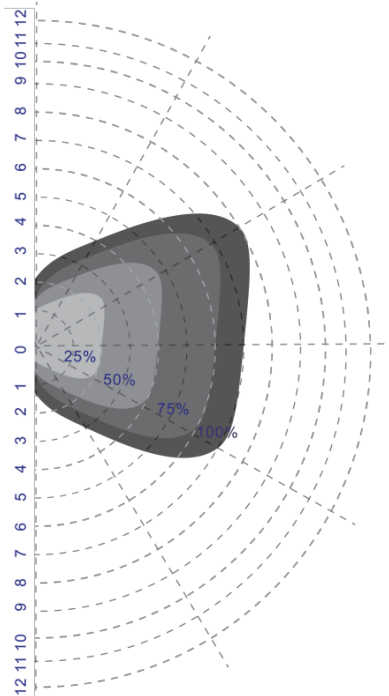


*The sensor is designed for connect one load only. Connecting to more than one load may damage the sensor.

*If no auxiliary 12Vdc interface driver, contact Customer Service for an option of power supply .

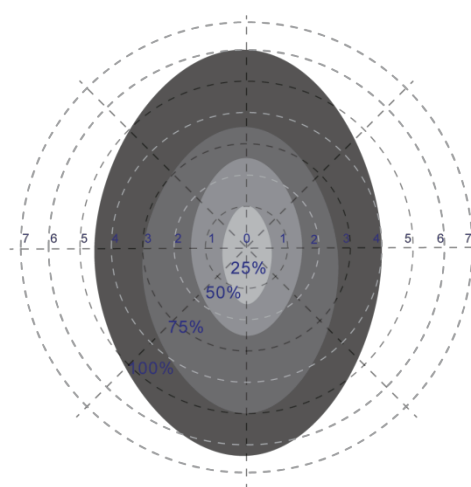
DETECTION AREA

Wall mounted height: 2m
Sensitivity: 100%/75%/50%/25%



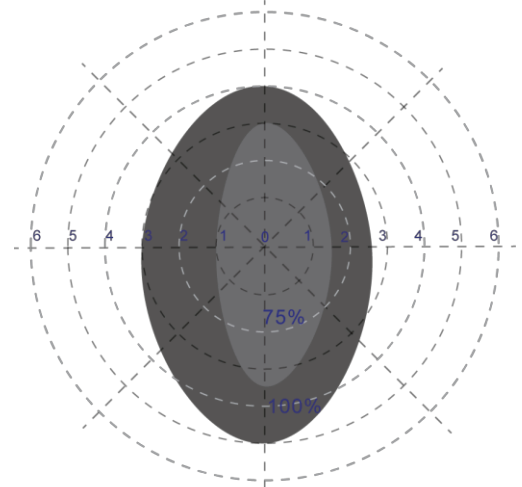
Normal moving (Speed:1m/s)

Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%

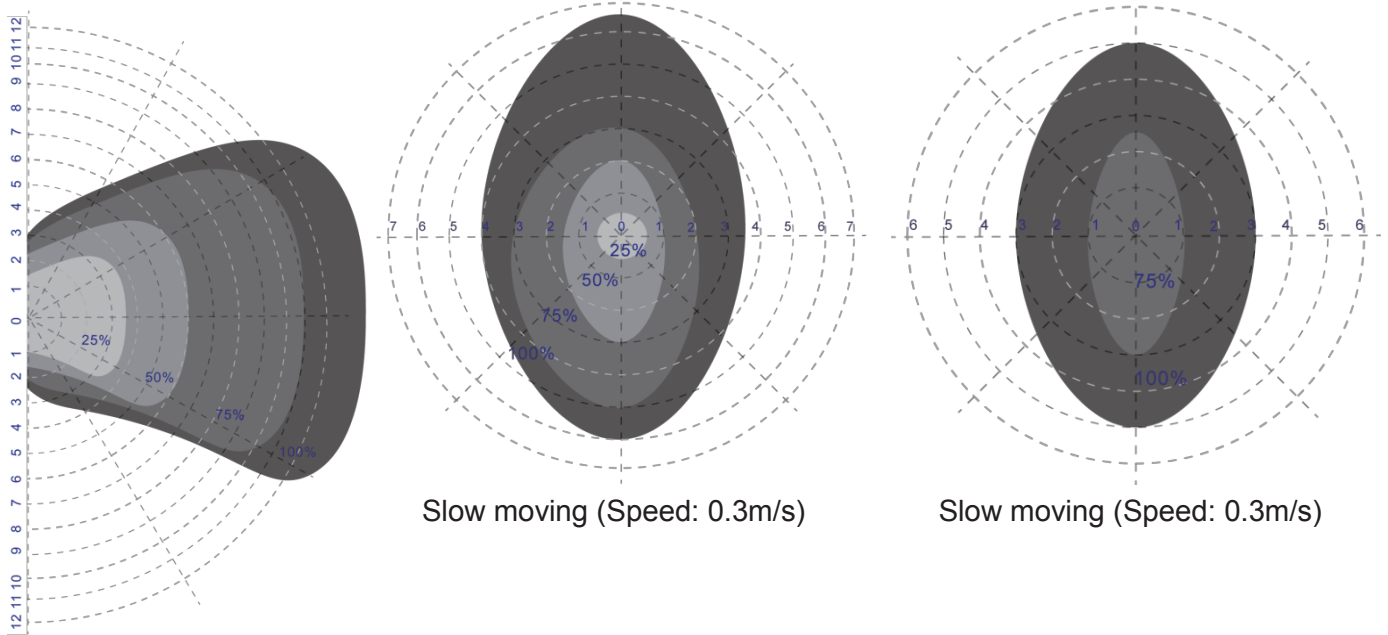


Normal moving (Speed:1m/s)

Ceiling mounted height: 6m
Sensitivity: 100%/75%



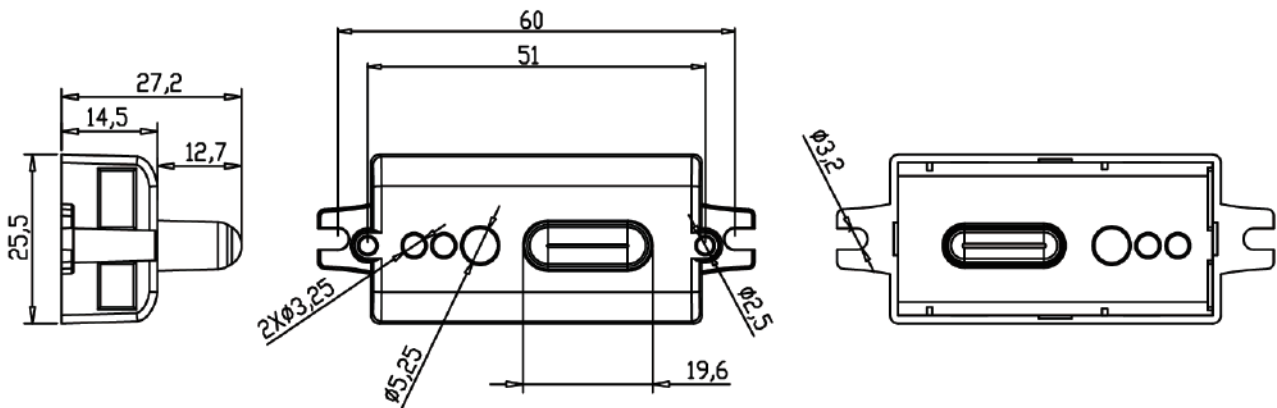
Normal moving (Speed:1m/s)



Slow moving (Speed: 0.3m/s)

*When installed at 6m height, sensor with 50%/25% detection area is unable to detect motion signal.

PHYSICAL DIMENSIONS



INITIALIZATION

When power on, the sensor automatically turns on light to 100% brightness and turns off light in 10 seconds. During initialization, sensor is unable to detect motion signals.

APPLICATION NOTICE

- 1) The sensor should be installed by professional electricians. Please turn off power before installing, wiring, and setting parameters.
- 2) Microwaves cannot penetrate metal. Do not place product in a closed or a half-closed metal lamp. Neither metal nor glass is not allowed to cover the product. If antenna needs to pass through the metal flat, please ensure that the top of sensor is close to the metal flat.
- 3) The distance among sensors should be greater than 3 meters. Keep sensor at least 1.5 meters away from switches, routers and other wireless devices to avoid interference. The antenna surface of microwave sensor should be away from input AC and output DC to avoid low or high frequency signals affecting the normal operation of microwave sensor's antenna.
- 4) Vibration signals will be regarded as moving signals to trigger sensor. Installing sensor should be away from the object that vibrates for a long time, such as large metal equipment, pipes, air conditioning outlets, exhaust vents, smoke exhaust machine ports, shaking fans, etc. Pets in detecting area may trigger sensing.
- 5) Sensor is for indoor use only. When installed outdoor or half-outdoor, the waterproof effect will be affected. Wind, rain, and moving objects may cause false triggering. When the sensor is installed in a metal lamp, on a metal reflective surface, or in a narrow enclosed device, microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity of sensor or contact manufacturer for technical support.
- 6) This product is suitable for ceiling mounting. If wall mounting, the detecting area will enlarge which makes microwave penetrate wall or light not turn off. Please change sensitivity to 50%. If 50% is useless, please avoid wall mounting or contact the manufacturer for technical support.
- 7) Due to continuous improvement, the contents of this instruction will be changed without prior notice.
- 8) The effect of low brightness will be different when connecting to different 0-10V drivers. The daylight thresholds are measured on a sunny day without shadow and in an ambient light diffuse reflection status. Different environment and climate cause different brightness values that daylight sensor measures.
- 9) Sensitivity area is related to moving speed of objects, size of moving objects, mounting height, mounting angle, installation environment, reflecting materials and others.
- 10) Given detecting area is typical value that is measured by 165cm high testers in an indoor open environment.
- 11) The product should be connected to DC stabilized power supply with stabilized output voltage and low ripple ratio(ripple ratio <100mV; load current > 25mA).
- 12) When installing in new environment, please install and test at least 5pcs product firstly before mass installation.
- 13) Set "Stand-by Period" to "+∞" when daylight priority function is required.
- 14) Daylight priority function may be out of control when it is used in lamps with a color temperature below 3500K.

WARRANTY

Five year limited warranty.

Specifications subject to change without notice.