Microwave Motion Sensor

MC011D/A

DC Operation - Advanced Version

Introduction

- Unique design makes it is suitable to fix within lamps which have limited space.
- Suitable for common LED drivers and achieve ON-OFF and dimming function.
- Gradually dimming offer excellent user experience.
- 4-hole press-in terminal (+, -, +', -'), easy assembly.
- Sensor data can be simply set via DIP switch.
- Detachable antenna module, suitable to fix within most luminaires

MC011D/A is an innovation and active motion detector with HF system 5.8GHz. Motion can be detected through plastic, glass and thin non-metal materials.

The sensor provides a simple and cost-effective sensor DIM solution. With DC operation voltage from LED driver, no need extra power from power line. No DALI or 1-10V dimmable LED drivers it is suitable for common LED drivers and achieve 3-step dimming function. Particularly suitable for price sensitive luminaires.

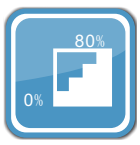
The sensor adopts a unique gradual dimming mode. Slowly and softly dimming supply the comfortable vision for users.


Max.8M


Light Sensor


Hold Time
10s~10min

Mounting Height
6m Max.



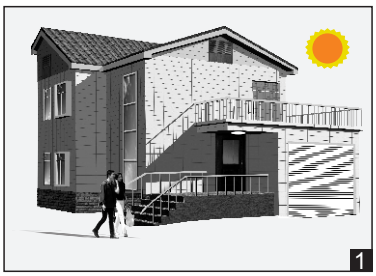
Automatic
Dimming

5 Years
Guarantee

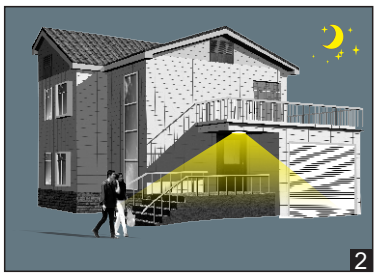
Function

ON-OFF Function

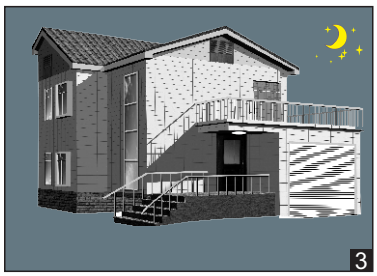
With DC operation voltage from LED driver, the sensors can match up with most common LED drivers and achieve automatic switching based on motion and ambient light level.



With sufficient ambient light, the sensor does not switch on the lamp.



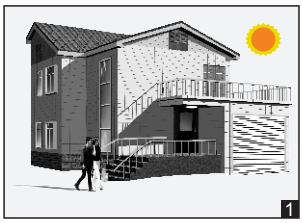
With insufficient ambient light, the sensor switches on the lamp when motion is detected.



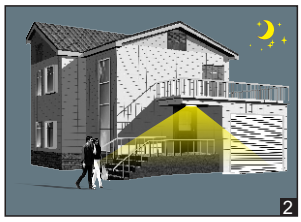
After hold time, the lamp gradually dims down if no motion detected.

3-step Dimming Function

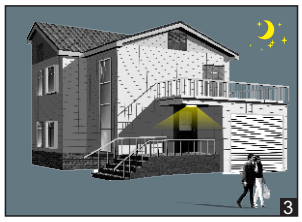
When used in combination with common constant current LED drivers, the sensors can achieve 3-step dimming function, 100%---> low light--->off. It is perfect for use in some areas that requires a light change notice before totally switch off.



With sufficient ambient light, the sensor does not switch on the lamp.



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

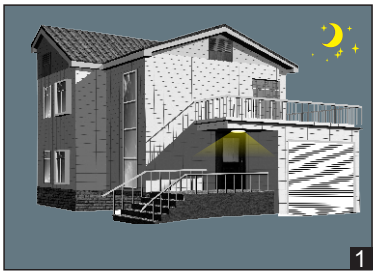


After hold time, the lamp gradually dims to a low light level if no movement detected.

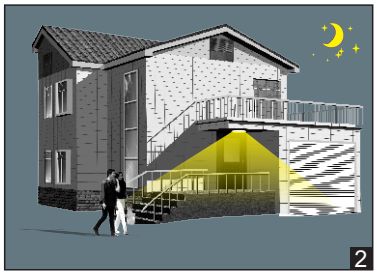
No new motion is detected after stand-by period, the lamp switches off.

2-step Dimming Function

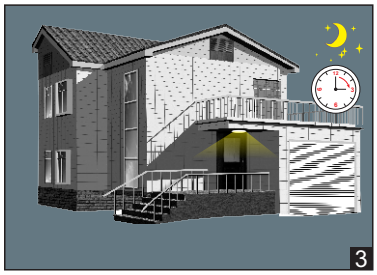
When used in combination with common constant current LED driver, the sensors can achieve 2-step dimming function, 100%---> low light (Never turn off). They are particularly suitable for use in corridors, stairwells and underground passages where low light levels are maintained until motion is detected.



No motion detected, the lamp remains at a low light level all the time.



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



After hold time, the lamp gradually dims to a low light (preset in the sensor) if no motion detected.

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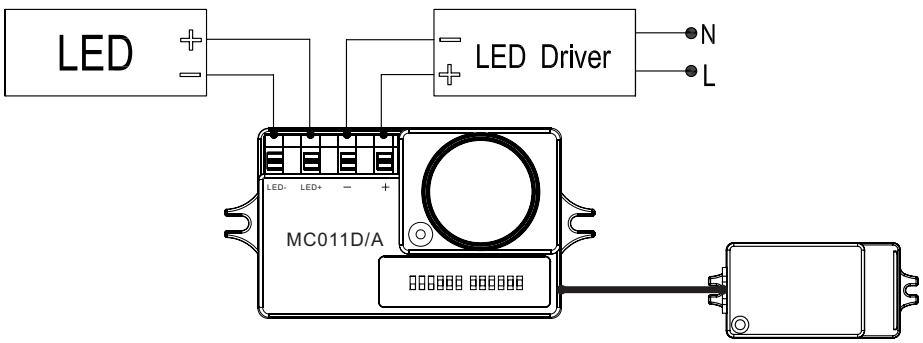
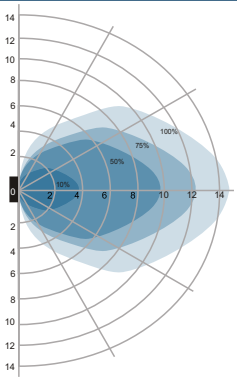
Microwave Motion Sensor

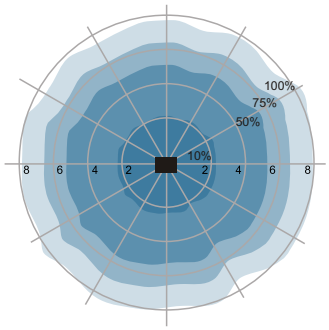
Wiring scheme



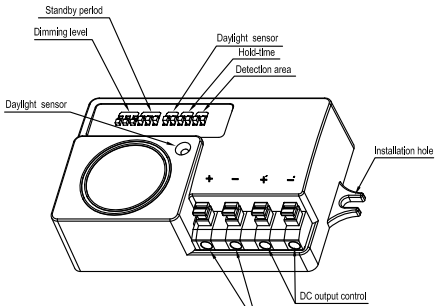
Detection Pattern

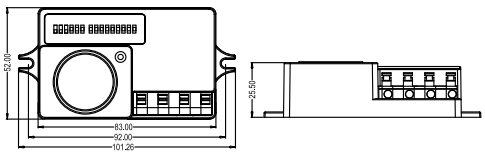


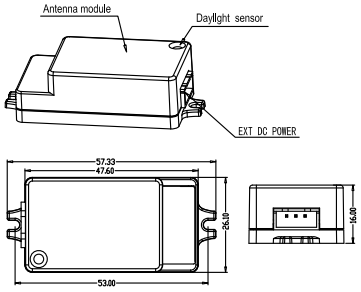
Wall mounting pattern (Unit: m)
Suggested installation height: 1-1.8m



Ceiling mounting pattern (Unit: m)
Suggested installation height: 2.5-6m





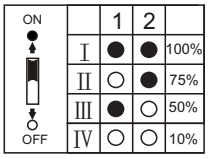


MC011D/A

Operating voltage	25~100Vdc
Rated load	Max. 200W LED light
Operating current	2A max
HF system	5.8GHz±75MHz, ISM wave band
Transmitting power	<0.5mW
Power consumption	≤0.5W(standby), <1W(operation)
Detection zone	Max.(D x H): 16m x 6m
Detection sensitivity	10% / 50% / 75% / 100%
Hold time	10s / 1min / 3min / 10min
Daylight sensor	10lux / 30lux / 50lux / Disable
Dimming level	10% / 20% / 30% / 40% / 50% / 60% / 70% / 80%
Stand-by period	0s / 5min / 10min / 30min / 60min / Disable
Mounting height	6m Max.
Motion detection	0.5~3m/s
Detection angle	150°(wall installation), 360°(ceiling installation)
Operating temperature	-25℃~70℃
IP rating	IP20

Setting

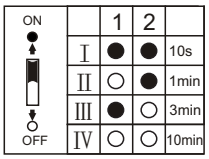
By selecting the combination on the DIP switches, sensor data can be precisely set for each specific application.



	1	2	
I	●	●	100%
II	○	●	75%
III	●	○	50%
IV	○	○	10%

Detection area

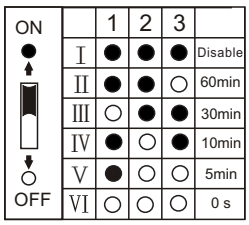
Detection area can be reduced by selecting the combination on the DIP switches to fit for each application precisely.



	1	2	
I	●	●	10s
II	○	●	1min
III	●	○	3min
IV	○	○	10min

Hold time

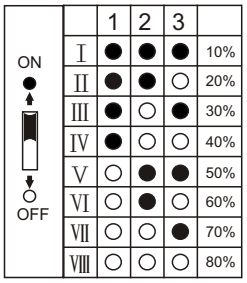
Refers to the time period the lamp remains at 100% illumination after no motion detected.



	1	2	3	
I	●	●	●	Disable
II	●	●	○	60min
III	○	●	●	30min
IV	●	○	●	10min
V	●	○	○	5min
VI	○	○	○	0 s

Stand-by period

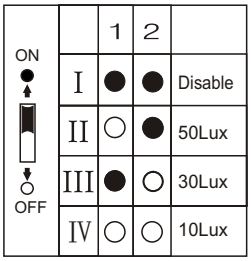
Refers to the time period the lamp remains at a low light level before it completely switches off in the long absence of people.
When set to Disable mode, the low light is maintained until motion is detected.



	1	2	3	
I	●	●	●	10%
II	●	●	○	20%
III	●	○	●	30%
IV	●	○	○	40%
V	○	●	●	50%
VI	○	●	○	60%
VII	○	○	●	70%
VIII	○	○	○	80%

Dimming level

The low light level you would like to have after the hold time in the long absence of people.The dimming level is calculated on the 350mA basis, actual dimming level is based on output current of LED driver.



	1	2	
I	●	●	Disable
II	○	●	50Lux
III	●	○	30Lux
IV	○	○	10Lux

Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold.
When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light levels.
50lux,30lux: twilight operation, 10lux: darkness operation only.
Note that daylight sensor is active only when lamp totally switches off.