Specification

Product Name: AC ON/OFF sensor（CASAMBI）
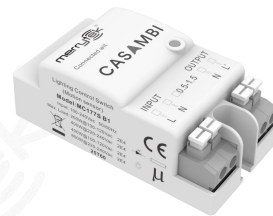
Product Model: MC177S B1

Versions	Release/ change Date	Reason	Publishing
V1.0	2024.08.01	First version	James Guo

【Product Feature】

- Casambi Bluetooth mesh networking was adopted, casambi App was used to design parameters And set application scenarios
- Conform to new ERP standards; low stand-by power.
- 5.8GHz microwave license-free ISM wave band; bulk order are compliant with RED approval.
- Compact size design, can be built-in most of light fixtures.
- Input and output terminals are convenient for connecting.
- Five year warranty

【Parameter】

Input	
Rated Voltage	100-240VAC 50/60Hz
Stand-by Power	≤0.5W
Surge Test	L--N: 1kV
Output	
Output Control	ON-OFF
Load Capacity	400W(Inductive) ; 800W(Resistive)
Max. Surge Capacity	50A (50% Ipeak, twidth =200us, 230Vac full load, cold start)
Sensor Parameter	
Operating Frequency	5.8 GHz ±75MHz, ISM wave band.
Transmitting power	0.5mW Max.
Detecting Radius	Ceiling installation 3m height: 1m/s ≥ 2.5m, 0.3m/s ≥ 2.5m Test condition: Product setting 100% sensitivity, 60 ㎡ indoor open space
Mounting Height	2.5-6m (ceiling mounting), 2-3m (wall mounting)
Sensor sensitivity	Casambi App setting
Hold time	Casambi App setting
Daylight Sensor	Casambi App setting
Wireless parameters	
BLE Module	Casambi Bluetooth
Working frequency	2.402-2.480GHz
Transmitting power	+8dBm(max)
Transmission distance	25m(Visible distance)
Fixture ID	35481
Environment	
Operating Temperature	-25~60°C
Storage Temperature	-40℃~80℃, Humidity: ≤85%(Non-condensing)
Maximum Shell Temperature (Tc)	80℃
Certificate Standard	
Certificate	CE, RED
Environmental Requirement	Compliant to RoHS 2.0, Reach

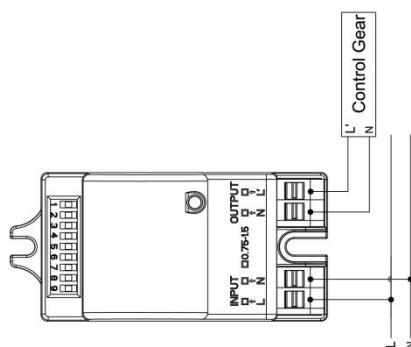| IP Rating	IP20
Product Category	Class Ⅱ
Other	
Wiring	Press-in type terminal block, wiring 0.75-1.5 mm^2
Installation	Built-in
Package	Bubble bag + Clapboard + Carton(K=A)
Net Weight	37.8±3g
Lifetime	5 years warranty @Ta

【Product Information】

● Dimension(units: mm)
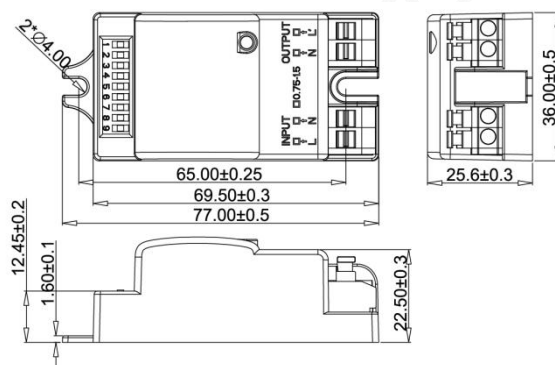
● Function
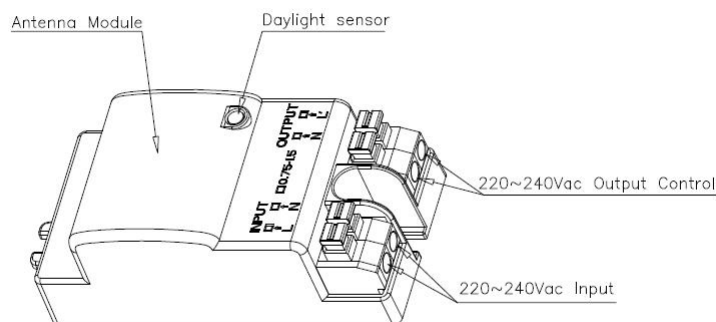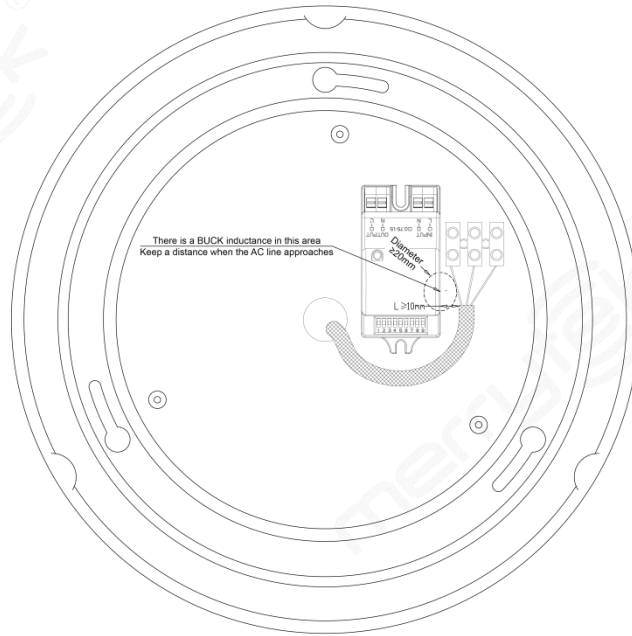
● Wiring

Note:

*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor.
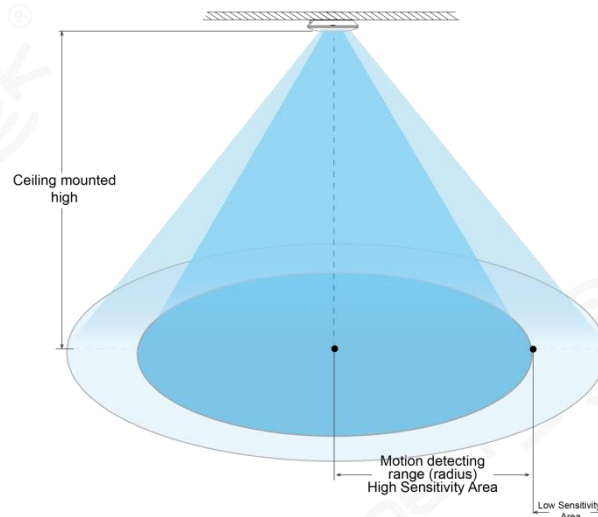
● Installation instruction

Note:

When installation, please pay attention to the front of microwave antenna is not allowed to be blocked by metal.

The AC incoming line needs to keep a distance of more than 11.5mm from the BUCK inductance, Otherwise it will cause conduction to fail. As shown in the following figure.

【Detection Range】

【Initialization】

When the sensor is powered on for the first time, the indicator will flash 6 times and turn off after 15 seconds. During initialization, sensor is not able to detect movement.

【Default setting】

Sensitivity: 100%, Hold time: App setting , Daylight sensor: App setting

【Application Notice】

● Sensor should be installed by a professional electrician. Please turn off power before installing, wiring.

● 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 above the product. If antenna needs to pass through the metal plate, please ensure that the top of sensor is close to the metal plate.

● The installation spacing between sensors is recommended to be greater than 2m. Keep it away from wireless devices such as switches and routers, and the installation spacing between sensors and routers is recommended to be greater than 2m.

● Sensitivity area is related to moving speed of objects, size of moving objects, mounting height, mounting angle, working environment, reflecting materials and etc.. Given detecting area is typical value that was measured by 165cm high testers in an indoor open environment.

● This model is suitable for ceiling installation. If wall installation is used, the microwave sensor sensing detection area is greatly increased, and it may cause the phenomenon of microwave penetrate wall or the light not going out. So please adjust the sensitivity to 10%. If the sensitivity 10% can not be used, please avoid to the wall installation or ask the manufacturer for technical support.

● 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.

● Sensor should not be covered or hided by metal, PCB, LED tray etc..The spacing between the sensor antenna and surrounding materials should be greater than 5mm. There should be no metal or PCB tracks near the sensor antenna, above or below it. The recommended thickness of cover is 2mm, and keep the spacing between the sensor antenna and cover is greater than 3.2mm.

● 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 cause false trigger.

● The antenna surface of microwave module should be away from input AC, output DC, rectifier bridge, transformer, switch tube and other high-power devices to avoid high frequency signals affecting the normal operation of microwave sensor's antenna.

● Sensor is for indoor use only. The waterproof effect for outdoor or half-outdoor use will be affected. Wind, rain, and moving objects may cause false triggering. When the sensor is installed in a metal lamp, a metal reflective surface or a small enclosed environment, the microwave will be reflected many times and cause false triggering, please reduce the sensitivity or ask the manufacturer for technical support.

● For the new installation environment, it is recommended to test 5pcs samples before installation.