# 1. Features

- Unique split design makes it suitable to built in lighting fixtures which have limited space.
- Work with 0-10V dimmable LED drivers, easy to achieve dimming function.
- Adjustable detecting sensitivity, hold time, stand-by/on-off via DIP switches, suitable to variety of installation sites.

# 2. Parameter

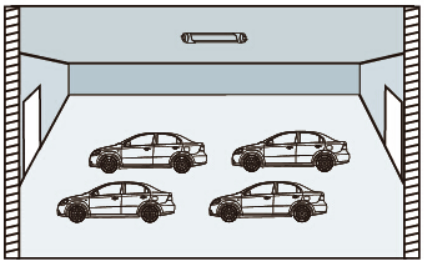
| | | |
|---|---|---|
| **Input** | Operating Voltage Rage | 108-305V AC, 50Hz/60Hz |
| | DC Input Voltage | N/A |
| | Rated Voltage | 120-277V AC, 50Hz/60Hz |
| | No-load Power | N/A |
| | Stand-by Power | ≤0.5W |
| | Surge Test | L--N: 1kV |
| **Output** | Working Mode | ON/OFF function, 1-10V dimming |
| | Type of Load | Inductive or Resistive Load |
| | Load Capacity | 120Vac: 3.6A; 270Vac: 3.4A |
| | Current of Load | N/A |
| | Max. Surge Capacity | 30A (50% Ipeak, twidth =500uS, 230Vac full load, cold start);<br>60A (50% Ipeak, twidth =200uS, 230Vac, full load, cold start ) |
| **Dim Interface** | 1-10V Dimming | Yes. |
| | Synchronous Control | N/A |
| | High Low-level | N/A |
| | PWM Control | N/A |
| **Sensor Parameters** | Operating Frequency | 5.8 GHz ±75 MHz，ISM Band. |
| | Transmitting power | 0.5mW Max. |
| | Hold time | 5S/1min/5min/10min/15min/30min |
| | Stand-by DIM Level | 10%/20%/30%/50%（set via 2 DIP Switch） |
| | Stand-by Period | 0S/10S/1min/10min/30min/1h/∞ |
| | Detection Sensitivity | 100%/75%/50%/25% （set via 2 DIP Switch） |
| | Daylight Sensor | 5lux/15lux/30lux/50lux/100lux/150lux/Disable（set via 4 DIP Switch）(Ambient light diffusion) |
| | Daylight on/off | N/A |

| | | |
|---|---|---|
| | Detecting Radius | 4-6m (mounting height 3m) |
| | Mounting Height | 6m Max |
| | Detecting Angle | 150° |
| **Wireless Module** | Operating Frequency | N/A |
| | Transmitting power | N/A |
| | Transmitting distance | N/A |
| | Modulation mode | N/A |
| | Number of coding | N/A |
| **Operating Environment** | Operating Temperature | -35~+70℃ |
| | Storage Temperature | Temperature: -40℃…+80℃;<br>Humidity: 10%-95% （Non-condensing） |
| **Certificate Standards** | Safety standards | UL60730-1, AS/NZS 60669.2.1 |
| | EMC standards | FCC part 15 |
| | Environmental Requirement | Compliant to RoHS |
| | Certificate | UL Reconizied, SAA |
| **Others** | Wiring | Press-in Type Terminals, wire diameter：0.75-1.5mm$^2$ |
| | IP Rating | IP20 |
| | Protection Class | Class II |
| | Installation | Built-in |
| | Dimension | Main Part: 95*42.5*26mm<br>Sensor Head: 51*20*13.5mm |
| | Package | Bubble bags + clapboard +carton（K=A） |
| | Net Weight | 94.2g |
| | Lifetime | 50,000h @ Ta Full load |

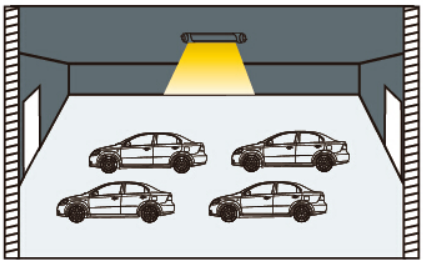
Note
1. “N/A” means not available.
2. Detection area is affected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.

# 3. Function

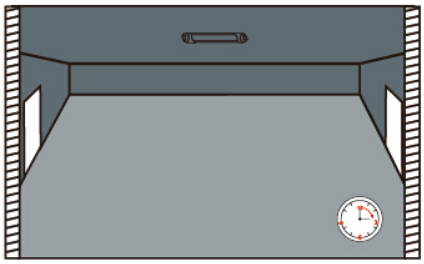
1) On/OFF Function



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

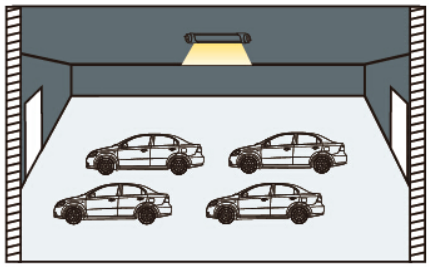


2 With insufficient ambient light, the sensor switches on the light when motion is detected.

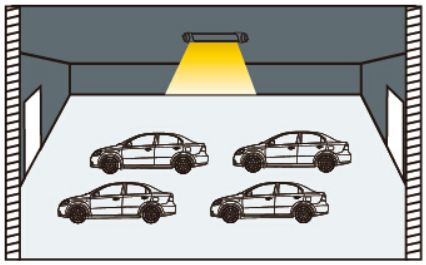


3 After elapse of hold time, the sensor switches off the light when no motion is detected.

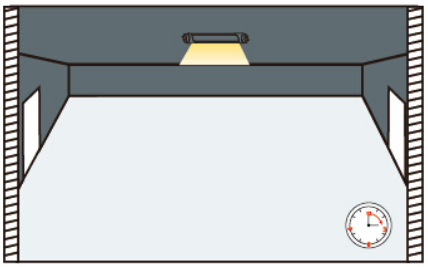
2)2- step dimming function（stand-by period set at“+∞”）



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

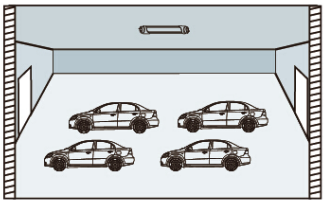


2 When motion is detected, the sensor will switch on the light to 100% brighteness

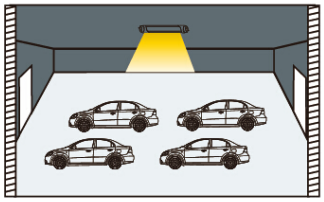


3 After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

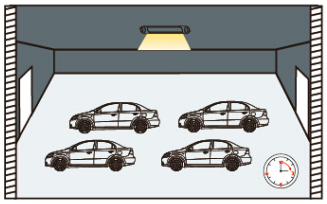
3) 3-step dimming function（stand-by period set at “5min/10min/30min/1h”）



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



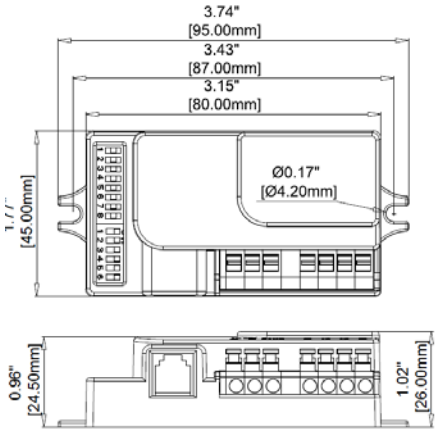
2 With insufficient ambient light, the sensor switches on the light when motion is detected.



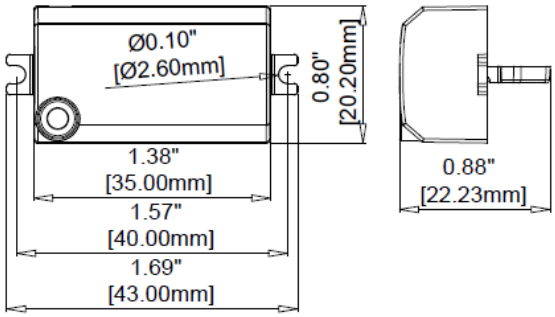
3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.

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

## 4. Dimension (mm)

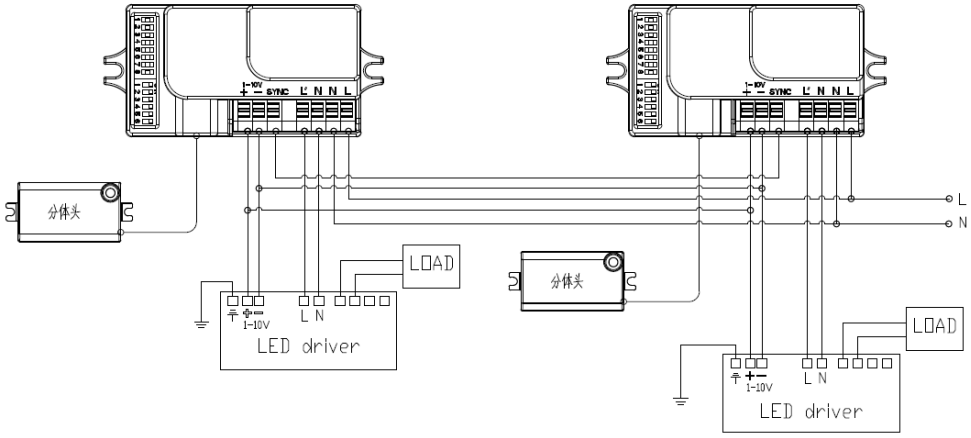



Main Part Size



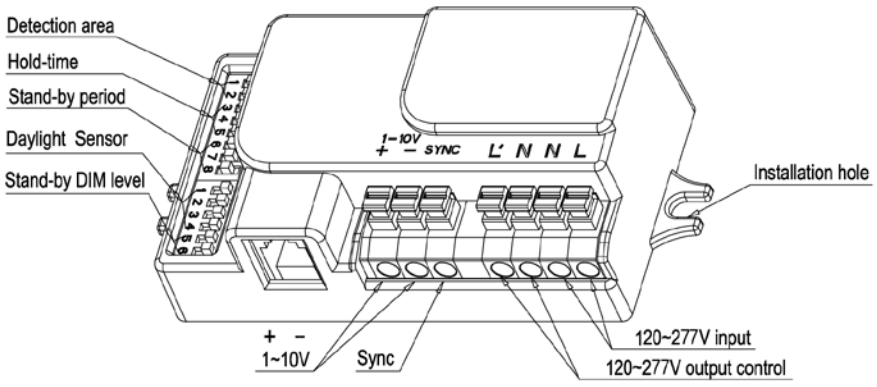

Sensor Head Size

## 5. Wiring




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

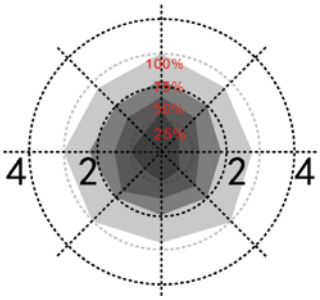
## 6. Structure



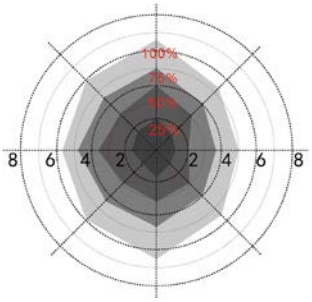
# 7. Radiation Pattern

Ceiling mounting

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

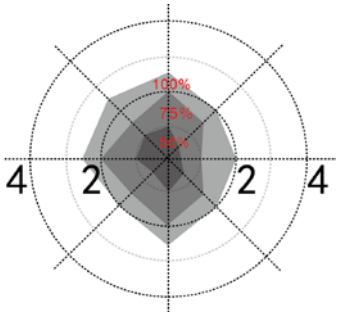



Normal moving (Speed:1m/s)

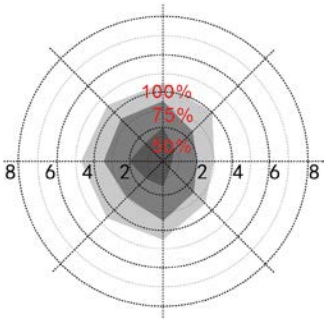



Slow moving (Speed 0.3m/s)

Ceiling mounted height: 6m(*)
Sensitivity:100%/75%/50%




Normal moving (Speed:1m/s)

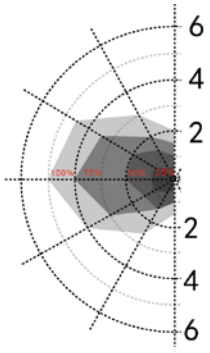



Slow moving (Speed: 0.3m/s)

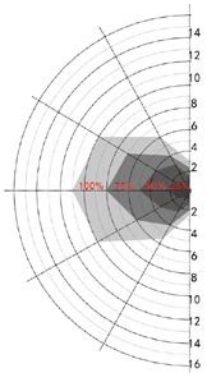
* 50%, 75%, 100% detection sensitivity is workable when installed at 4m mounting height. Only 25%sensitivity is not able to detect motion signal.

Wall mounting:

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




Normal moving (Speed：1m/s)



Slow moving (Speed 0.3m/s)

## 8. DIP Switch Setting

### Detection Area (Sensitivity)

| | 1 | 2 | |
|---|---|---|---|
| Ⅰ | ON | ON | 100% |
| Ⅱ | ON | - | 75% |
| Ⅲ | - | ON | 50% |
| Ⅳ | - | - | 25% |

### Hold Time

| | 3 | 4 | 5 | |
|---|---|---|---|---|
| Ⅰ | ON | ON | ON | 5S |
| Ⅱ | - | ON | ON | 1min |
| Ⅲ | ON | - | ON | 5min |
| Ⅳ | - | - | ON | 10min |
| Ⅴ | ON | ON | - | 15min |
| Ⅵ | - | - | - | 30min |

### Stand-by Period

| | 6 | 7 | 8 | |
|---|---|---|---|---|
| Ⅰ | ON | ON | ON | 0S |
| Ⅱ | - | ON | ON | 10s |
| Ⅲ | ON | - | ON | 1min |
| Ⅳ | - | - | ON | 10min |
| Ⅴ | ON | ON | - | 30min |
| Ⅵ | - | ON | - | 1h |
| Ⅶ | - | - | - | +∞ |

**Stand-by dim Level**

| | 1 | 2 | |
|---|---|---|---|
| Ⅰ | ON | ON | 50% |
| Ⅱ | - | ON | 30% |
| Ⅲ | ON | - | 20% |
| Ⅳ | - | - | 10% |

**Daylight Sensor**

| | 3 | 4 | 5 | 6 | |
|---|---|---|---|---|---|
| Ⅰ | ON | ON | ON | ON | 5Lux |
| Ⅱ | - | ON | ON | ON | 15Lux |
| Ⅲ | ON | - | ON | ON | 30Lux |
| Ⅳ | - | - | ON | ON | 50Lux |
| Ⅴ | ON | ON | - | ON | 100Lux |
| Ⅵ | ON | ON | ON | - | 150Lux |
| Ⅶ | - | - | - | - | Disable* |

*Disable means the daylight sensor does not work. The sensor will turn on the light once motion is detected regardless of ambient light level.

## 9. Initialization

1/ On/Off function /3-step dimming function:

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it turns off the light. During the initialization, the sensor is not able to detect movement.

2/ 2-step dimming function:

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it dims the light to a low light level (set by stand-by dim level). During the initialization, the sensor is not able to detect movement.

## 10. Factory Setting

Detection Area: 100%, Hold Time: 10 mins, Stand-by Period: Infinity, Stand-by dim Level: 30%, Daylight Sensor: Disable

## 11. Application Notice

Be sure to power off before adjusting DIP switch setting.

## 12. Version Change

| Version | Date | Description |
|---|---|---|
| **A0** | July 27, 2016 | Released new product |
| **A1** | March 20, 2018 | Change the sensor head size |