

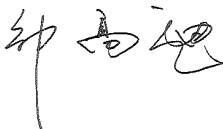
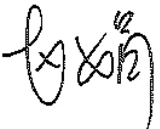
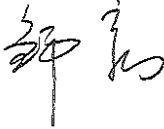

SPECIFICATION

Product Name: Sensor DIM LED Driver

Model No.: MLC20C-P2

Issue Date: November 28, 2017

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	SALES CHECKED	R&D CHECKED	PREPARED
			

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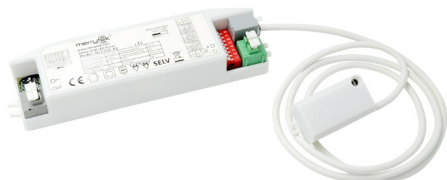
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Fax: +86 (0)755-2786 3012

Website: www.merrytek.com

1. Features



- Ultra-slim design for wall light, Tri-proof LED light
- Unique design with sensor detector makes the drivers suitable to fix within luminaries
- DIP setting allows the user easy to adjust sensor parameters

2. Parameter

Input	Operating Voltage Range	198-264V AC, 50Hz/60Hz
	Input Current	0.118A
	Rated Voltage	220-240V AC, 50Hz/60Hz
	load Power	≥0.90 (230V Max load)
	Stand-by Power	≤1W
	Working efficiency	80% (230V Max load)
	Wiring method	Press terminal, wire diameter:0.75-1.5mm ²
Output	Working Mode	Constant current
	Type of Load	LED
	No-load output voltage	55V DC Max
	Load power	19W Max
	Load output voltage range	28-42V DC
	Load output current	300mA/320mA/350mA/380mA/400mA/450mA
	Wiring method	Press terminal, wire diameter:0.75-1.5mm ²
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz,ISM Band.
	Transmitting power	1mW Max.
	Hold time	5S/90S/3min/10min
	Stand-by DIM Level	10%/25%
	Stand-by Period	0S/30S/10min/+∞
	Detection Sensitivity	100%/ 50%
	Daylight Sensor	5lux/15lux/30lux/Disable
	Daylight on/off	N/A
	Detecting Radius	4-6m (mounting height 3m) (see note 2)
	Mounting Height	6m Max
	Detecting Angle	150° (Wall mounted), 360° (Ceiling mounted)

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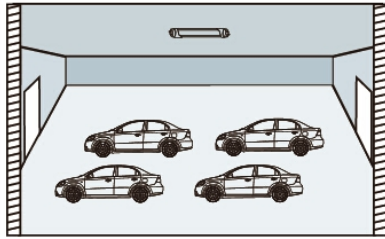
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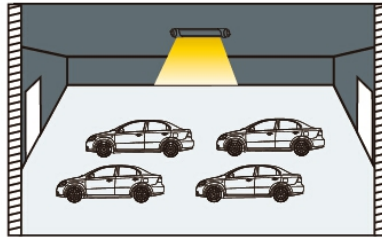
Wireless Module	Operating Frequency	N/A
	Transmitting power	N/A
	Transmitting distance	N/A
	Modulation mode	N/A
	Number of coding	N/A
Operating Environment	Operating Temperature	-25℃...+50℃
	Storage Temperature	-40℃...+80℃ (Humidity: 85% Non-condensing)
Certificate Standards	Safety standards	EN61347-1, EN61347-2-13
	EMC standards	EN55015, EN61547, EN61000-3-2, EN61000-3-3
	Environmental Requirement	Compliant to RoHS
	Certificate	TUV, CE
Other	IP Rating	IP20
	Protection Class	Class II
	Installation	Built-in
	Dimension	Main Part: 136*35*21mm Sensor Head :51*20*13.5mm
	Wire Length of Sensor Head	820mm
	Package	Bubble bag+Clapboard + Carton(K=A)
	Net Weight	85.4g
	Lifetime	30,000h @Ta 230V full load
<p>Note</p> <p>1. "N/A" means not available.</p> <p>2. Detection area is effected 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.</p>		

2. Function

1) On/OFF Function (Stand-by period set at '0S')



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

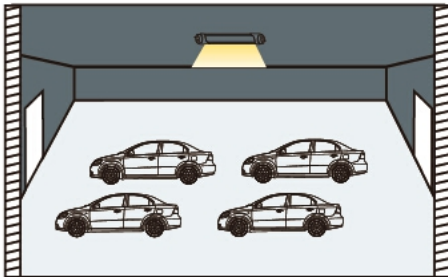


- ② With insufficient ambient light, the sensor switches on the light when motion is detected.

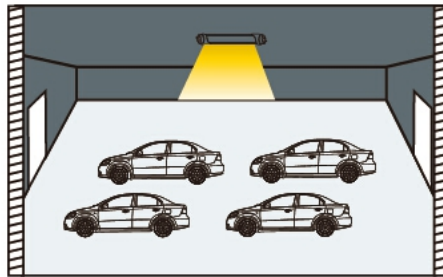


- ③ After elapse of hold time, the sensor switches off the light when no motion is detected.

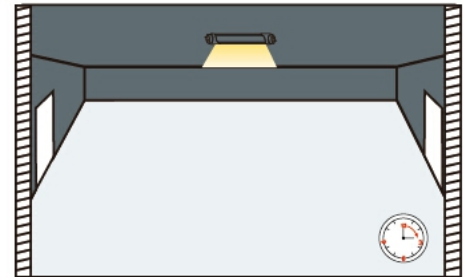
2) 2-step dimming function (stand-by period set at "+∞")



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

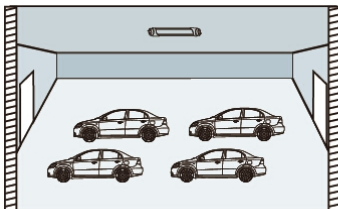


- ② When motion is detected, the sensor will switch on the light to 100% brightness

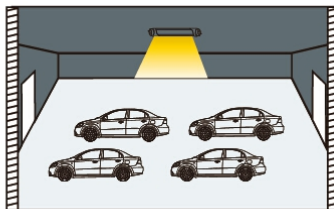


- ③ After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

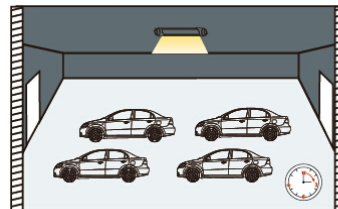
3) 3-step dimming function (Stand-by period set at '30S/10min')



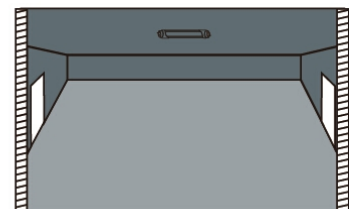
- ① With sufficient ambient light, the light will not be switched on even if with motion signal.



- 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.

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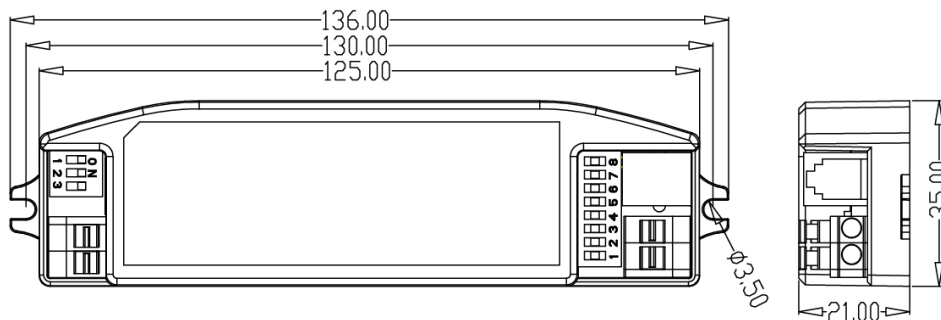
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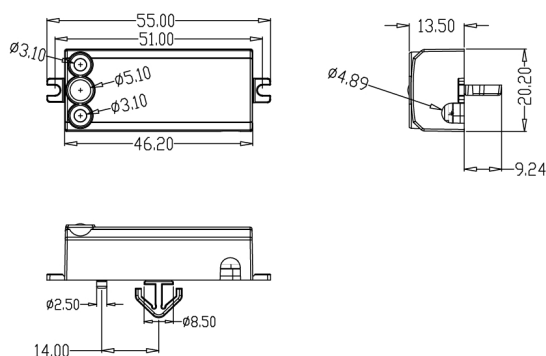
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4. Dimension (mm)

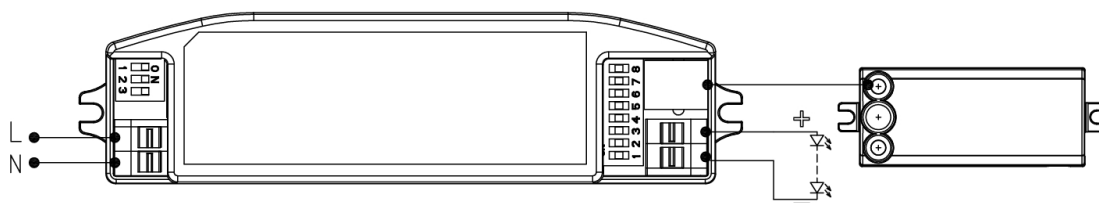


Main Part Size



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



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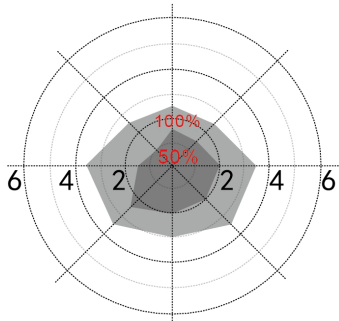
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7. Radiation Pattern

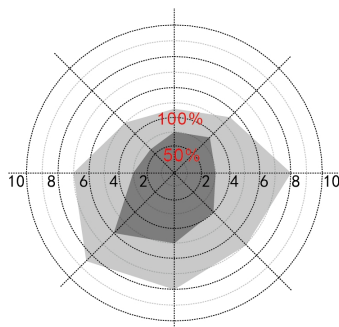
Ceiling mounting

Ceiling mounted height: 3m

Sensitivity: 100%/50%



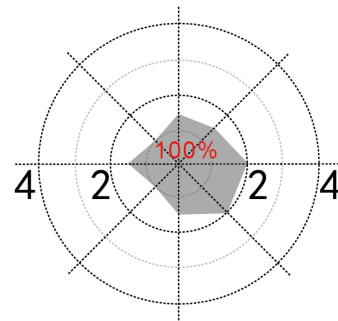
Normal moving (Speed:1m/s)



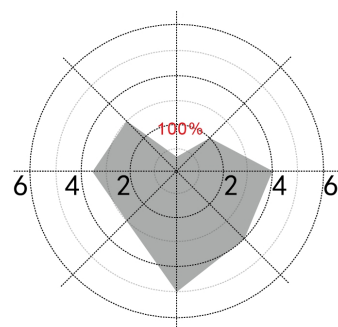
Slow moving (Speed: 0.3m/s)

Ceiling mounted height: 6m(*)

Sensitivity:100%



Normal moving (Speed:1m/s)



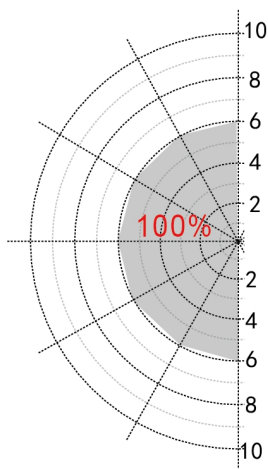
Slow moving (Speed: 0.3m/s)

*Only 100% detection sensitivity is workable when installed at 6m mounting height. 50% sensitivity is not able to detect motion signal.

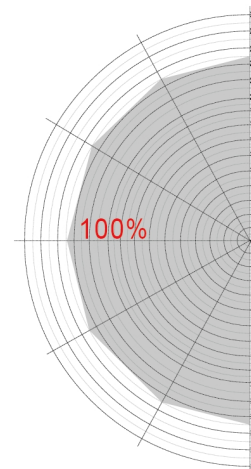
Wall mounting:

Horizon mounted height: 1.5m

Sensitivity: 100%



Normal moving (Speed 1m/s)



Slow moving (Speed 0.3m/s)

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8. DIP Switch Setting

Detection Area (Sensitivity)

	1	
I	ON	100%
II	-	50%

Hold Time

	2	3	
I	ON	ON	5S
II	ON	-	90S
III	-	ON	3min
IV	-	-	10min

Daylight Sensor

	4	5	
I	ON	ON	5lux
II	ON	-	15lux
III	-	ON	30lux
IV	-	-	Disable

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

Stand-by Period

	6	7	
I	ON	ON	0s
II	ON	-	30s
III	-	ON	10min
IV	-	-	$+\infty$

Stand-by DIM Level

	8	
I	ON	10%
II	-	25%

Output Constant

	S1	S2	S3
450mA	ON	ON	ON
400mA	ON	-	ON
380mA	-	-	ON
350mA	-	ON	-
320mA	ON	-	-
300mA	-	-	-

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

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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: 5S, Daylight Sensor: Disable, Stand-by DIM level:10%, Stand-by period:30s

11. Application Notice

Be sure to power off before adjusting DIP switch setting.

12. Version Change

Version	Date	Description
A0	February 14,2016	Released new product
A1	November 28,2017	Change Sensor Head Size