merrytek®

Sensor Driver

MLC18C-P and MLC08C-P
ON-OFF / 3-step dimming function
Ultra-thin version

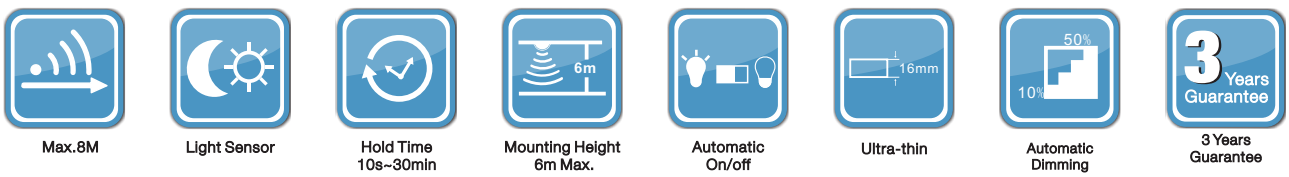
Introduction

- Integration of microwave motion sensor, daylight sensor and LED power supply.
- Automatic switching and dimming based on motion and light level.
- Compact size makes the drivers suitable to fix within most LED panel light.
- Detection area, time delay and daylight threshold can be precisely set via DIP switch.

Sensor DIM LED drivers, originally pioneered by Merrytek, are innovative products integrated with HF motion detector, daylight sensor and LED power supply.

The products supply a simple energy-saving solution for LED panel light. As all control parts are integrated in a same housing, it is very easy to assemble and save labor cost.

Compact size makes the drivers easy to be installed in luminaires and get more simple lighting structure.

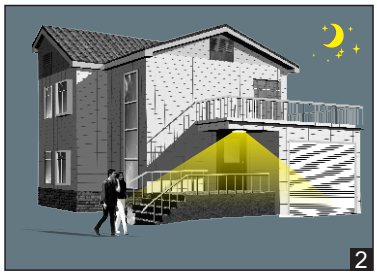


Optional Function

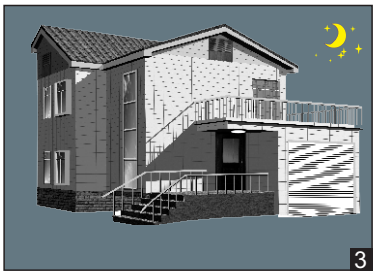
ON-OFF Function

The products provide ON-OFF and steps dimming function for LED lighting, users can select the right function according to different applications.

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

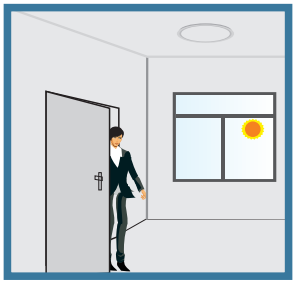


With insufficient ambient light, the sensor switches on the lamp when motion is detected.



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

3-step dimming function



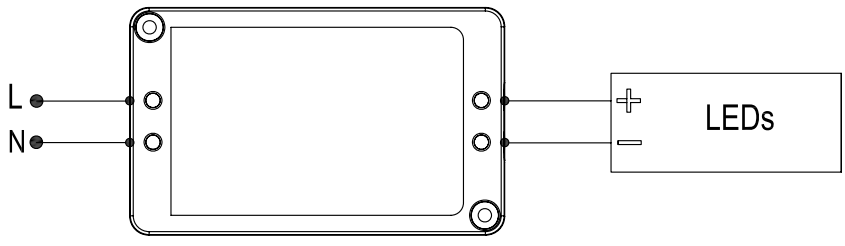
With sufficient ambient light, the sensor does not switch on the lamp.

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

After hold time, the sensor dims the lamp at a low light level if no new motion trigger.

After stand-by period, the sensor switches off the lamp if no motion is detected in its detection zone.

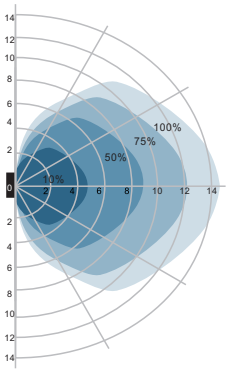
Wiring scheme



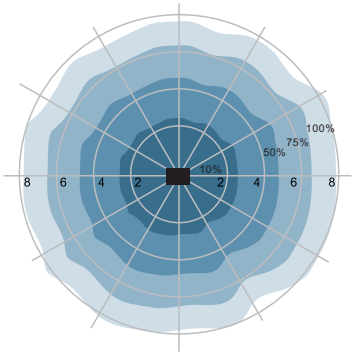
merrytek®

Sensor Driver

Detection Pattern

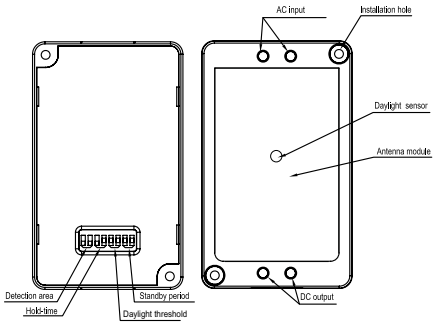


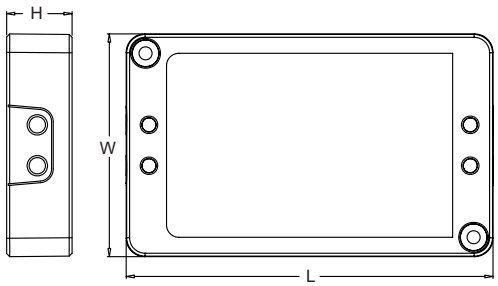
Wall mounting pattern (Unit: m)
Suggested installation height: 1-1.8m



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

Technical Parameters



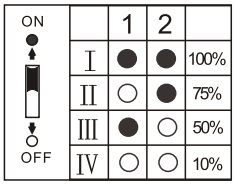


Unit: mm

Model NO.	MLC18C-P	MLC08C-P
Operating voltage	220~240Vac, 50/60Hz	220~240Vac, 50/60Hz
Output constant current	300mA	300mA
Output voltage	35-60Vdc	16-28Vdc
Efficiency	≥80%	≥80%
Power factor	≥0.9	≥0.9
HF system	5.8GHz±75MHz, ISM wave band	5.8GHz±75MHz, ISM wave band
Transmitting power	<0.5mW	<0.5mW
Power consumption	≤1W(standby)	≤1W(standby)
Detection zone Max.(D x H)	12m x 6m	12m x 6m
Detection sensitivity	10% / 50% / 75% / 100%	10% / 50% / 75% / 100%
Hold time	10s / 90s / 3min / 10min	10s / 90s / 3min / 10min
Corridor function	0s / 30s / 10min / Disable	0s / 30s / 10min / Disable
Daylight sensor	5lux / 15lux / 50lux / Disable	5lux / 15lux / 50lux / Disable
Stand-by dimming level	20%, can be customized	20%, can be customized
Mounting height	6m Max.	6m Max.
Motion detection	0.5~3m/s	0.5~3m/s
Detection angle	150° (Wall installation) 360° (Ceiling installation)	150° (Wall installation) 360° (Ceiling installation)
Working temperature(Ta)	-20℃ ~50℃	-20℃ ~50℃
Size (LxWxH)	105x58.5x20mm	90x54.5x16mm
IP rating	IP20	IP20

Setting

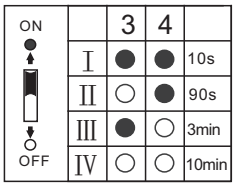
By selecting the combination on the DIP switch, sensor data can be precisely set for each specific application.



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

Detection area

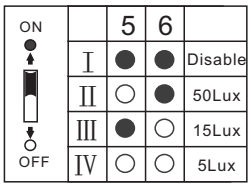
Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application.



	3	4	
I	●	●	10s
II	○	●	90s
III	●	○	3min
IV	○	○	10min

Hold time

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

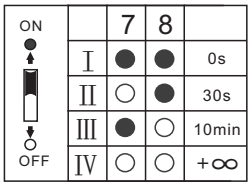


	5	6	
I	●	●	Disable
II	○	●	50Lux
III	●	○	15Lux
IV	○	○	5Lux

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 level.
50lux: twilight operation, 15lux, 5lux: darkness operation only.



	7	8	
I	●	●	0s
II	○	●	30s
III	●	○	10min
IV	○	○	+∞

Corridor function (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 “+∞”, the low light is maintained until motion is detected.
When set to “0s”, the light will turn off after hold time.