

## MLC40C-P1/MLC65C-P1 ON-OFF / 3-step dimming function For LED Panel Light and Tri-pooof Light



### Introduction

- Integration of microwave motion sensor, daylight sensor and LED power supply.
- Automatic switching and dimming based on motion and light level.
- Unique design makes the drivers suitable to fix within LED panel light and tri-pooof 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 ceiling lights. As all control parts are integrated in a same housing, it is very easy to assemble and save labor cost.

Unique design makes the drivers can be installed in luminaires and no dark area when turn on the light.



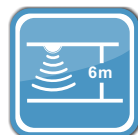
Max.8M



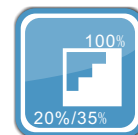
Light Sensor



Hold Time  
5s~10min



Mounting Height  
6m Max.



Automatic  
Dimming



3 Years  
Guarantee

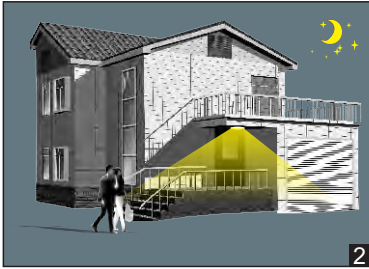
## Optional Function

### ON-OFF Function

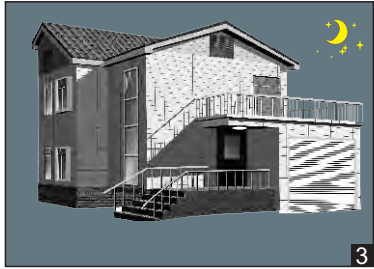
The products provide ON-OFF and steps dimming function for LED lighting, users can select the right function according to different applications.



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

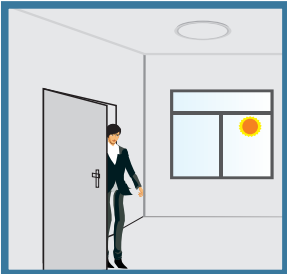


With insufficient ambient light, the sensor switches on the lamp when motion is detected.



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

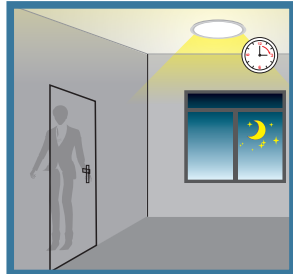
### 3-step dimming function



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.

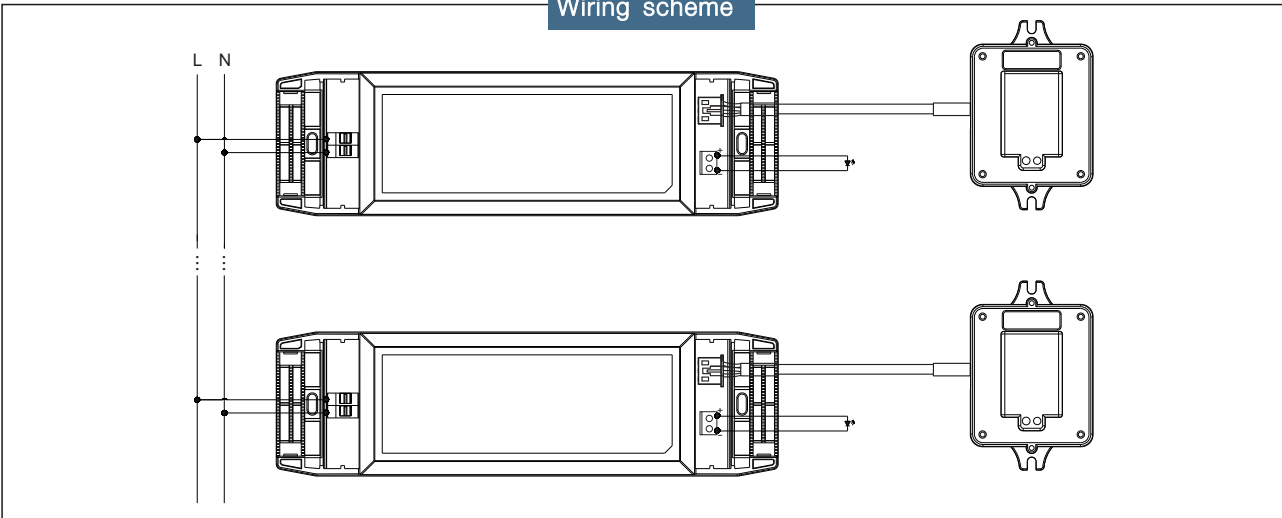


After hold time, the sensor dims the lamp at a low light level if no new motion trigger.

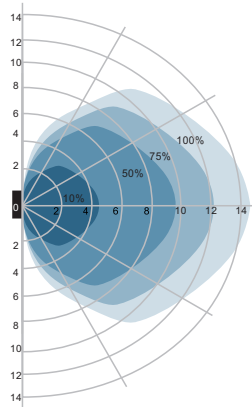


After stand-by period, the sensor switches off the lamp if no motion is detected in its detection zone.

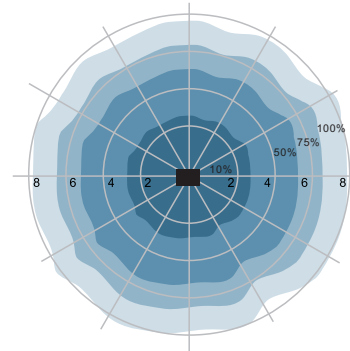
### Wiring scheme



## Detection Pattern



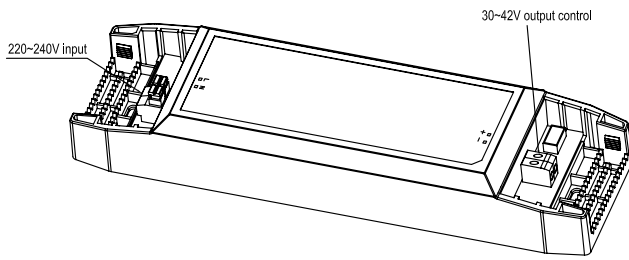
Wall mounting pattern (Unit: m)  
Suggested installation height: 1-1.8m



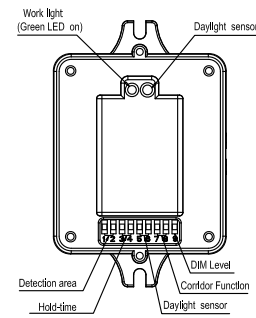
Ceiling mounting pattern (Unit: m)  
Suggested installation height: 2.5-6m

## Technical Parameters

|                            |   |   |
|----------------------------|---|---|
| Model NO.                  | MLC40C-P1   | MLC65C-P1   |
| Operating voltage          | 100~277Vac, 50/60Hz                                     | 100~277Vac, 50/60Hz                                     |
| Output constant current    | 950mA (Max)   | 1500mA (Max)  |
| Output voltage             | 30-42Vdc  | 30-42Vdc  |
| Efficiency                 | ≥86%  | ≥86%  |
| Power factor               | ≥0.9  | ≥0.9  |
| HF system                  | 5.8GHz±75MHz, ISM wave band                             | 5.8GHz±75MHz, ISM wave band                             |
| Transmitting power         | <0.2mW  | <0.2mW  |
| Power consumption          | ≤1.5W(standby)  | ≤1.5W(standby)  |
| Detection zone Max.(D x H) | 16m x 6m  | 16m x 6m  |
| Detection sensitivity      | 10% / 50% / 75% / 100%                                  | 10% / 50% / 75% / 100%                                  |
| Hold time                  | 5s / 90s / 3min / 10min                                 | 5s / 90s / 3min / 10min                                 |
| Corridor function          | 0s / 30s / 10min / +∞                                   | 0s / 30s / 10min / +∞                                   |
| Daylight sensor            | 5lux / 15lux / 50lux / Disable                          | 5lux / 15lux / 50lux / Disable                          |
| Stand-by dimming level     | 20% / 35%   | 20% / 35%   |
| Mounting height            | 6m Max.   | 6m Max.   |
| Motion detection           | 0.5~3m/s  | 0.5~3m/s  |
| Detection angle            | 150° (Wall installation)<br>360° (Ceiling installation) | 150° (Wall installation)<br>360° (Ceiling installation) |
| Working temperature(Ta)    | -20°C~50°C  | -20°C~50°C  |
| Size (LxWxH)               | 202x58x30mm   | 202x58x30mm   |
| IP rating                  | IP20  | IP20  |



LED Power Supply



Sensor Module

## Setting

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

|      |     |    |    |      |
|------|-----|----|----|------|
|      |     | 1  | 2  |      |
| ON ↑ | I   | ON | ON | 100% |
|      | II  | -  | ON | 75%  |
|      | III | ON | -  | 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  |       |
| ON ↑ | I   | ON | ON | 5s    |
|      | II  | -  | ON | 90s   |
|      | III | ON | -  | 3min  |
|      | IV  | -  | -  | 10min |

### Hold time

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

|      |     |    |    |         |
|------|-----|----|----|---------|
|      |     | 5  | 6  |         |
| ON ↑ | I   | ON | ON | Disable |
|      | II  | -  | ON | 50Lux   |
|      | III | ON | -  | 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  |       |
| ON ↑ | I   | ON | ON | 0s    |
|      | II  | -  | ON | 30s   |
|      | III | ON | -  | 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.

|      |    |    |     |
|------|----|----|-----|
|      |    | 9  |     |
| ON ↑ | I  | ON | 20% |
|      | II | -  | 35% |

### Stand-by dimming level

The low light level you would like to have after the hold time in the long absence of people.