

Speciation for Sensor Dim LED Driver MLC40C-P5



- On-Off / 3-step dimming function for LED ceiling and tri-proof light
- Integration of microwave motion sensor, daylight
- Automatic switching and dimming based on motion and light level
- Output current can be set via DIP switch
- Unique design with mini sensor detector makes the drivers suitable to fix within compact luminaries
- Stand-by power $\leq 1W$
- Detection area, Stand-by dimming level, time delay and daylight threshold can be precisely set via DIP switch

1. Parameter

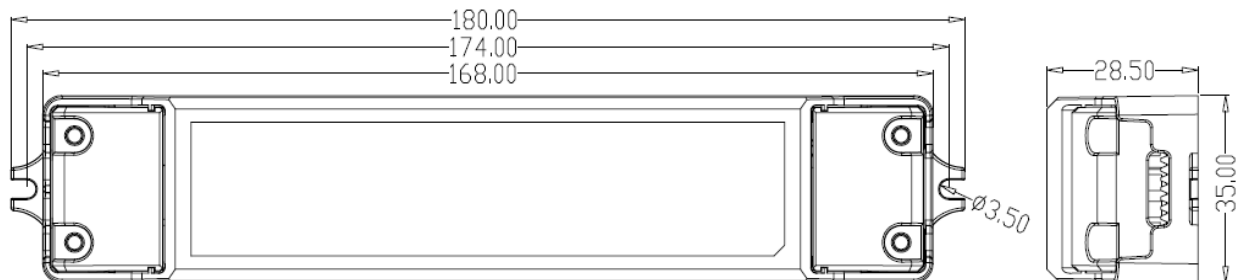
Input	Operating Voltage	198-264V AC 50Hz/60Hz
	Input Voltage	220-240V AC 50Hz/60Hz
	Input Current	$\leq 0.21A$ @230VAC (Over Load)
	Power Factor	≥ 0.90 @230VAC (Full Load)
	Standby Power	$\leq 1W$
	Efficiency	85% Max. @230V AC (Full Load)
	Wiring Method	Screw terminal block (0.75-1.5mm ²)
Output	Operating mode	Constant Current
	Load type	LED
	Ripple requirement (Flickering or Flickering Free)	Flickering
	No-load output voltage	68VDC Max.
	Load output voltage range	30-50VDC
	Full load output power	35W Max
	Load output current	400mA/500mA/600mA/700mA
	Constant current/voltage Precision	Constant Current Precision $\pm 5\%$
	Wiring method	Shrapnel Terminal, Wire Diameter: 0.75-1.5mm ²
Control Method	Sensitivity shift	25%/ 50%/ 75%/100%
	Hold Time	5S/90S/ 5min/ 25min
	Stand-by brightness	0%/ 10%/ 25%/ 50%
	Stand-by period	1min/ 5min/ 25min/ $+\infty$
	Daylight sensor	10Lux/ 30Lux/ 50Lux/ 100Lux/Disable
	Over voltage protection	Auto reset
	No load protection	Auto reset

Shenzhen Merrytek Technology Co., Ltd

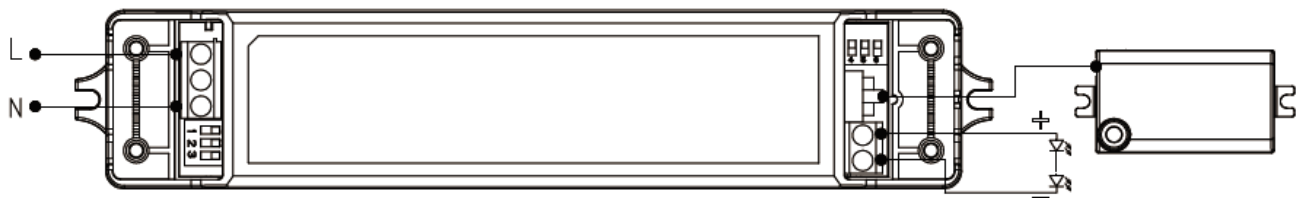
No. 3 Building, 380 Xiangshan Avenue, No. 3 Industry Park Luotian, Songgang, Bao'an, Shenzhen, Guangdong, China,
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Web: www.merrytek.com

	Short circuit protection	Auto reset
Operating Environment	Operating temperature/ humidity	-25...+50 °C Humidity : 85% (Non-condensing)
	Storage temperature/ humidity	-40...+80 °C
	Outer Max. Temp (Tc)	85 °C
Safety & EMC	Isolation pressurization	3750V AC 5mA 60S (Input "L N", Output "SEC+ SEC-")
	EMC	EN55015 EN61547 EN61000-3-2 EN61000-3-3
	Safety requirement	EN61347-1 EN61347-2-13
	Certificate requirement	CE(pending)
Others	IP rating	IP20
	Protection level	Class II
	Outer dimension	180L*35W*28.5H mm (Driver) 56L*20W*13H mm (Detachable Sensor)
	Packaging requirement	PE Bag Clapboard Outer Carton (K=A)
	Weight	171g
	Life	30000Hr

2. Dimension (Unit: mm)



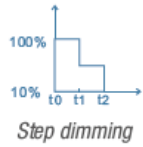
3. Wiring Diagram



Shenzhen Merrytek Technology Co., Ltd

No. 3 Building, 380 Xiangshan Avenue, No. 3 Industry Park Luotian, Songgang, Bao'an, Shenzhen, Guangdong, China,
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Web: www.merrytek.com

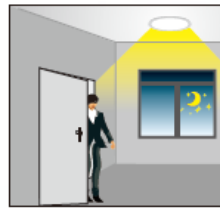
4. Function



3-step dimming function



① With sufficient ambient light, the light will not be switch on.



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 trigger.



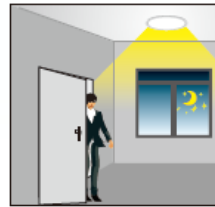
④ After elapse of stand-by period, the sensor switches off the light if no motion is detected in the detection zone.



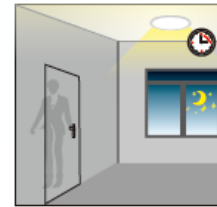
2-step dimming function



① If there is no motion detected, the light remains 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.

5. Output Current Setting

Output Current (mA)	S1	S2	S3
700	ON	ON	ON
600	ON	ON	-
500	ON	-	-
400	-	-	-

Shenzhen Merrytek Technology Co., Ltd

No. 3 Building, 380 Xiangshan Avenue, No. 3 Industry Park Luotian, Songgang, Bao'an, Shenzhen, Guangdong, China,
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Web: www.merrytek.com

6. Sensor Setting

- Daylight sensor (Driver SW2)

Daylight sensor	S1	S2	S3
10 lux	ON	ON	ON
30 lux	ON	ON	-
50 lux	ON	-	ON
100 lux	-	ON	ON
Disable	-	-	-

(Disable: The Daylight Sensor is disable and will not detect the daylight)

- Stand-by period (Set via LED driver)

Stand-by Period	S4	S5
1 min	ON	ON
5 min	ON	-
25 min	-	ON
+∞	-	-

(+∞: The lights will be remained at a low light level all the time)

- Detection sensitivity (Set via detachable sensor)

Sensitivity	S1	S2
100%	ON	ON
75%	ON	-
50%	-	ON
25%	-	-

- Hold time (Set via detachable sensor)

Hold Time	S3	S4
5s	ON	ON
90s	ON	-
5 min	-	ON
25 min	-	-

Shenzhen Merrytek Technology Co., Ltd

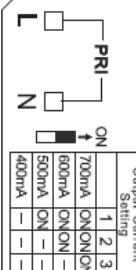
No. 3 Building, 380 Xiangshan Avenue, No. 3 Industry Park Luotian, Songgang, Bao'an, Shenzhen, Guangdong, China,
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Web: www.merrytek.com

- Stand-by Level (Set via detachable sensor)

Stand-by Level	S5	S6
0%	ON	ON
10%	ON	-
25%	-	ON
50%	-	-

7. Label

1) Driver Label

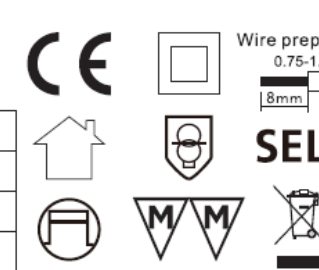




Sensor DIM LED Driver
Model: MLC40C-P5
www.merrytek.com

•tc CE

Input Voltage(Vac)	220-240	Output Voltage(Vdc)	30-50
Input Current(A)	0.21	Output Voltage(Vdc) MAX.	60
Input Frequency(Hz)	50/60	Ta(°C)	-25~+50
Power Factor(λ)	>0.9	Tc(°C)	85



Wire preparation 0.75-1.5mm





2) DIP Label of the Detachable Sensor

ON
↑


Detection Area				Hold Time				Dimming Level			
	1	2			3	4			5	6	
I	ON	ON	100%	I	ON	ON	5S	I	ON	ON	0%
II	ON	—	75%	II	ON	—	90S	II	ON	—	10%
III	—	ON	50%	III	—	ON	5min	III	—	ON	25%
IV	—	—	25%	IV	—	—	25min	IV	—	—	50%

Shenzhen Merrytek Technology Co., Ltd

No. 3 Building, 380 Xiangshan Avenue, No. 3 Industry Park Luotian, Songgang, Bao'an, Shenzhen, Guangdong, China,
 Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Web: www.merrytek.com