



# Smart Lighting Controller

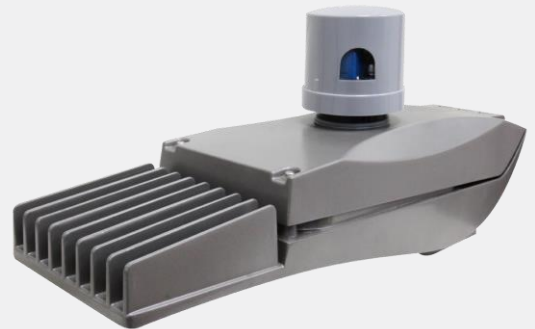
## LoRa Slave Series



Lighting system, corresponding with LPWAN technology

Lighting Slave utilized LoRa communication protocol

- Designed and optimized by Low Power Wide Area Network (LPWAN) with LoRa network technology
- NEMA socket connected (ANSI C136.41)
- Smart Control function (ON/OFF/Dimming)
- Smart power saving mode
- Electrical parameters monitoring
- Fault detection
- Intelligent operation based on predestinate schedule
- Wide operating temp range -20°C to 70°C
- Platform connection - supporting MQTT and CoAP transfer protocol
- Supporting content management system (CMS)
- Supporting integrated ambient light sensor and accelerometer



## Introduction

ORing's smart lighting series managed wireless transporting is designed for street lamp. Through LoRa communication technology (LPWAN), it is achieved to use licensed wireless frequencies and communicate devices more economic, more energy saving, and safer appliance.

OL-NB series provides electrical parameters monitoring function- Vrms(V), Irms(I), Power Factor(PF), Frequency(Hz), Power(W) to do instant monitoring and controls its cell controller operating. According to above monitored parameters calculation, it also obtains fault detection information – Over/under voltage, Over/under current, Lamp/Driver fault, Device failure to help users get on proper debug procedure.

OL-NB series also include the G-Sensor to do the tilt detection, can send the alarm in any damage.

Furthermore, it is designed as the autonomous sensing device, which controls dimming with sunrise time, smart dimming procedure through analyzing data, and so on.

## NEMA Socket Exterior and Pin Define

Dimensional requirements following ANSI C136.41 Dimming Receptacle

7 position: 3 power contacts + 4 dimming/signal contacts



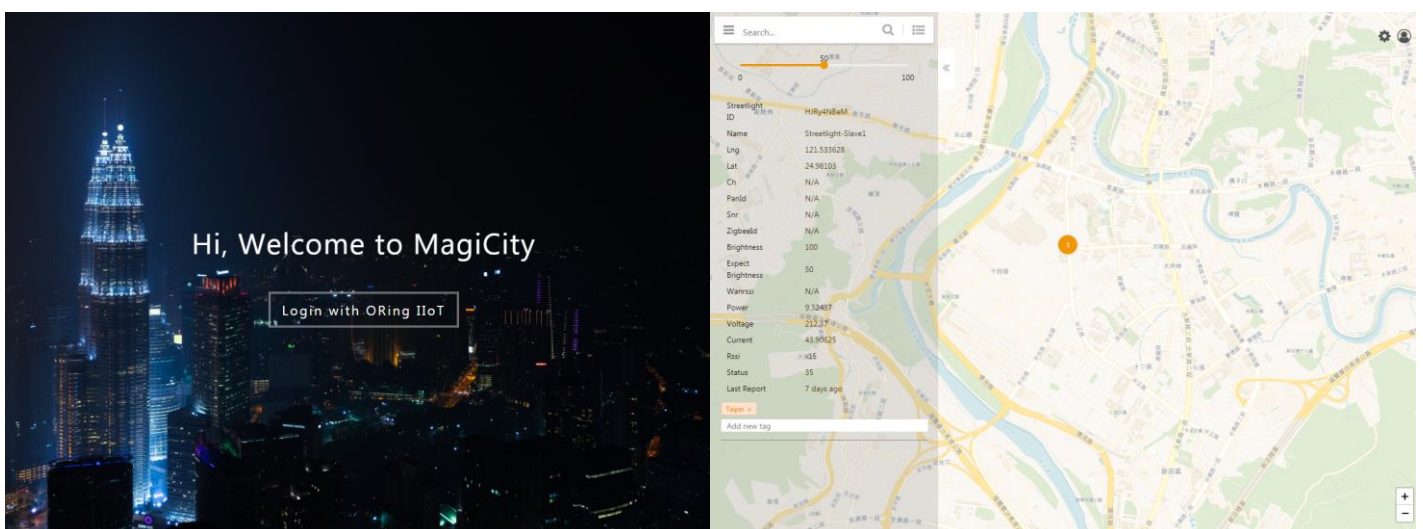
Pin NO.	Description
1	DALI+ or 0~10V Dimming Contact
2	N/A
3	N/A
4	DALI- or 0~10V Dimming Contact
5	Power Contact – LINE
6	Power Contact – NEUT
7	Power Contact – LOAD

## Specification

ORing Lighting Model		OLS-L SERIES	
NEMA Socket connected			
Pin Define		7pin NEMA socket ( Follow ANSI C136.41 Receptacle )	
Controller Feature			
Dimmable Function Feature(10-100%)		DALI	AO(0-10Vdc)
Electrical parameters monitor		Vrms(V) 、 Irms(I) 、 Power Factor(PF) 、 Frequency(Hz) 、 Power(W)	
Lighting Control	ON	●	
	OFF	●	
Wireless			
LoRa		Frequency: 868MHz / 916MHz Security: 128-bit AES encryption algorithms	
Electrical Specification			
AC Input Voltage		90-264Vac	
Output Load Current		Max. 2A	
Power Consumption		Max. 1.35W	

Supply Current	DALI	10mA
	AO(0-10Vdc)	1mA
Protection		
Inrush Current Protection	5A@10ms pulse	
Surge Protection	1kV	
Physical Characteristic		
Enclosure	IP65	
Dimensions	90 x 87mm	
Weight(g)	190g	
Environmental		
Storage Temperature	-40 °C to +80 °C	
Operating Temperature	-20 °C to +70 °C	
Operating Humidity	0 to 95%	
Additional Sensor Support Feature		
GNSS / GPS	GNSS Frequency band: GPS / GLONASS Tracking sensitivity: -158 dBm Cold-start sensitivity: -146 dBm Accuracy (Open Sky): 2.5m TTFF (Open Sky) : Hot start <1s, Cold start<35s	
Warranty	5 Year	

## MagiCity Open View



## Ordering Information

---

Model Name	Description
OLS-L*NT-GP	Lighting, NEMA, LoRa Slave, 0~10V Dimming control, P sensor, G Sensor
OLS-L*ND-GP	Lighting, NEMA, LoRa Slave, Dali Dimming control, P sensor, G Sensor

*: RF Band	
LoRa	
01	920
02	868
03	470
TW	TW
US	US

## Packing List

---

OLS-L Series Cell Controller x1