

# **SZ10-NEMA**

## **Single-lamp Controller**

### **Product Manual**

**Shanghai Shuncom Smart Technology Co.,Ltd**

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# Instruction

SZ10-NEMA single lamp controller is developed specially for foreign market demand by SHUNCOM. It is an important part of street lamp control system. The core chip of SZ10-NEMA controller adopts self-developed ZIGBEE wireless communication module. Together with professional hardware and software design, SZ10-NEMA controller offers powerful functions, easy implementation, wiring free, reliable operation and easy-maintenance. With all these advantages, SZ10-NEMA controller is a high performance and energy saving product, specialized for intelligent street lighting.

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# 1. Product Description

SZ10-NEMA controller conforms to IEEE802.15.4 protocol of ZIGBEE communication standard. It has the advantages of remote communication, strong anti-interference capability and flexible networking, realizing peer-to-peer and peer-to-multi peer transparent data transmission among devices, and constructing star network or mesh network topology. The interface standard is designed by TE Connectivity of ANSI C136.41-2013. dimmable socket and shrapnel contact are adopted to provide mechanical and electrical interconnection between light control unit and lamps using solid twist lock contacts to achieve reliable power interconnection, It is the ideal choice for outdoor business and public lighting.

SZ10-NEMA single-lamp controller consists of a current and voltage measurement circuit, which collect real-time load performance and power consumption of single-lamp controller. It helps to largely reduce work load of street lamp management department, and improve working efficiency, therefore significantly improve energy-saving benefit of all society.

Main Performance Features of SZ10-NEMA single-lamp controller:

- Input power: AC 85~265V 50/60Hz.
- Output power: AC 85~265V 50/60Hz
- Measuring current, voltage, power, Power consumption detection function.
- One way switch and 0~10V dimming signal output.

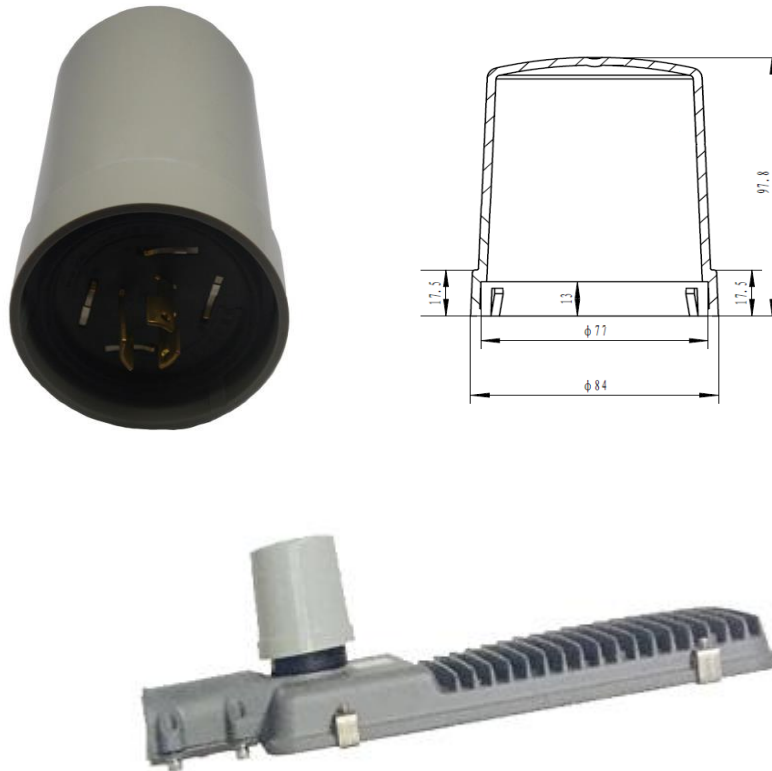
- Monitor the working status of lamps and lanterns, anomalies output alarm

- Single lamp custom group control
- Local timing, latitude and longitude control function
- Over-current protection, lamps condition detection and default lighting functions.

- Switch and the dimming suitable for lamps, such as LED lamp, high voltage sodium lamp and metal halide lamp etc.

- Overload protection design based on Security
- Radio frequency: global free frequency band of 2.4G ISM
- Number of wireless channel: 16
- Single network capacity: 65535 nodes
- Thorough communication protocol of ZIGBEE wireless networking
- Industrial operating temperature range:  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Easy and simple installation, can respond to the instructions sent by the center in seconds.

## 2. Product appearance and dimensions



### 3. Technical parameter

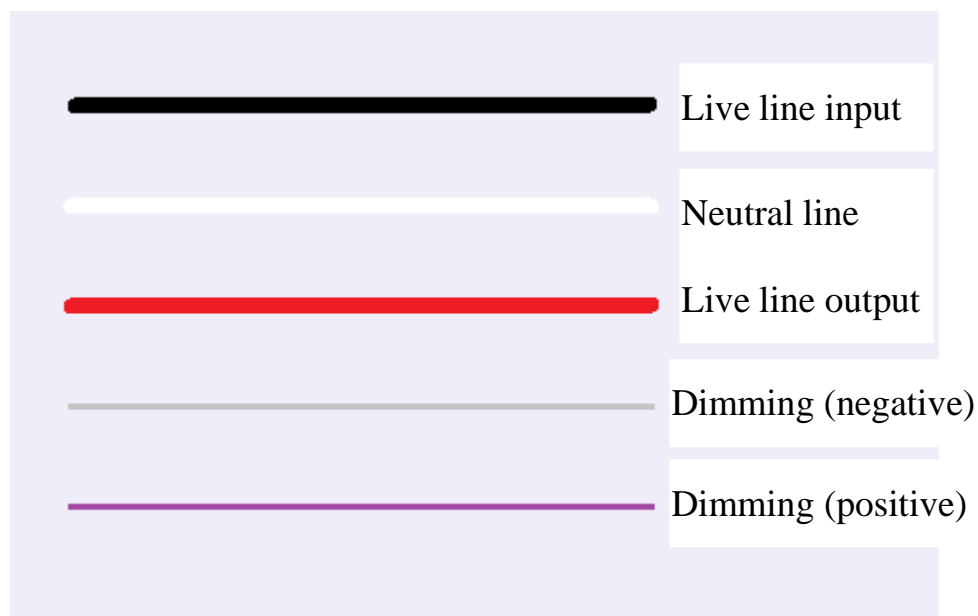
|   | Parameters            | Parameter Values                 | Remarks   |
|---|-----------------------|----------------------------------|---|
| 1 | Dimension             | 84Dia.×97.8 (mm)                 |   |
| 2 | IP Grade              | IP65                             |   |
| 3 | Rated Output Current  | 2A                               | Maximum current load 10A/2s                         |
| 4 | Wireless Frequency    | 2.4G                             |   |
| 5 | Dimming Control Type  | 0-10V/PWM                        | optional  |
| 6 | Transmission Distance | 800 meters                       | (between the nodes in the regular road environment) |
| 7 | Product Output        | single phase alternating current |   |

|    |                        |              |  |
|----|------------------------|--------------|--|
| 8  | Data Collection        | U,I,P,Q,COSΦ |  |
| 9  | Antenna Frequency Band | 2.4G         |  |
| 10 | Antenna Gain           | 3DB          |  |
| 11 | Antenna Standing Wave  | 《2.0         |  |
| 12 | Antenna Type           | built-in     |  |

## 4. Installation requirement

Rain, positive pole and negative pole connected in a contrary way shall be avoided for the installation and placement of SZ10 series single-lamp controller. Single-lamp controller shall be installed fixed, with the scratch and insulation damage of the line avoided.

## 5. Wiring Method



Black: live line input    Red: live line output    Purple: dimming  
(positive)



White: Neutral line      Gray: dimming  
(negative)

## **6.Disclaimer**

Shunzhou shall take no responsibility for not working properly or wrong installation due to violation of this manual or repair and maintenance services provided by non designated personnel.

Quality guarantee shall be invalid on the day when the enclosure of controller is opened.

## **7.Contact information**

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