

# Reflective laser photocell sensor

## Instruction manual

(YET611LSR V2.0)

- ◆ **Product Applications:** lifting doors, revolving doors, sliding doors, fence security protection, window and balcony security, warehouse security, parking lots and other outdoor security places.

- ◆ **Product Specification**

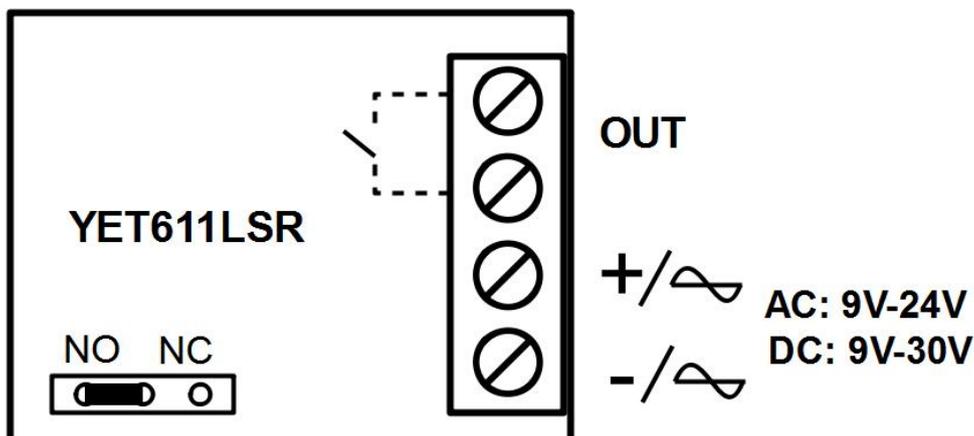
Input Voltage	: AC: 9V~ 24V (AC Frequency: 50HZ/60HZ) : DC: 9V~30V
Working Current	: ≤80mA@12V (Imax =150mA) , Power wastage: ≤0.96W
Sensing Distance	: 0.3m~ 8m @ reflectivity (10%-90%)
Reaction time	: ≥ 100mS
Ambient light resistance	: Max.70Klux
Launch tube parameters	: VCSEL, Center wavelength: 850nm , Security level: Class1 (IEC60825)
Signal reception angle	: 2°
Product Output Interface	: GND/AC、VCC/AC、NO/NC、COM
Product Output Type	: Relay dry contact output (NO/NC Selection by product jumper)
Output Port Load	: 1) AC 0.3A/120VAC 2) DC 0.8A/30VDC
LED light indication	Green LED light: 1) It is mainly used to indicate the power-on status of the product; 2) It is used to indicate distance setting mode and operating mode switching; Yellow LED light: Working status signal indication (On/Off: light off when there is an obstacle/light on when there is no obstacle.)
Operating temperature	: -10℃ ~ +60℃
Storage temperature	: -20℃ ~ +75℃
Product Size(LxWxH)	:100 * 40 * 35mm
Product weight	:61g (bare metal)
Product Standard	:One photocell sensor, one manual, one hood (optional)

- ❖ **Special Note:**

1、 Before using the product for the first time, please set the sensing distance for the product according to the actual application needs!!!

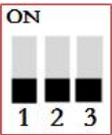
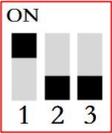
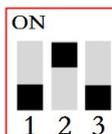
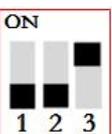
2、 The sensing distance of the product is required to be more than 0.3 metres!!!

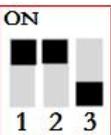
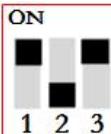
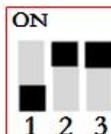
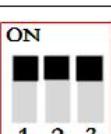
- ◆ **Product Electrical Interface**



## ◆ Product Operating Instructions

- Power on the product, after the power indicator and status indicator flash 3 times, the power indicator is always on, the status indicator is off, and the buzzer makes a short beep, indicating that the boot initialization is successful;
- Setting Distance: 【The following two ways can complete the distance configuration, the user can choose the appropriate way according to the actual application needs】
- ❖ Fixed Distance Configuration Method
  - (1) The product sets the distance through the switch on the configuration dial code. Each time the configuration dial code is used, the power indicator will blink fast 3 times and then become normally lit, indicating that the setting is successful;
  - (2) Refer to the following table for dip switch configurations in relation to distance:

Configuration Distance	DIP Switch Setting
Arbitrary Distance	
2m	
3m	
4m	

Configuration Distance	DIP Switch Setting
5m	
6m	
7m	
7.5m	

### ❖ Arbitrary Distance Configuration Method:

- (1) Enter the distance setting mode: After the product is powered on and initialized successfully, within 10 seconds, the user uses a shield to cover the distance from the product (within 0.5m) back and forth 5 times, until the buzzer "beep-beep-beep", enter the distance setting mode ;
- (2) The power light will flash continuously and quickly, indicating that the product has entered the state of detecting obstacles;
- (3) Adjust the position of the product so that the product is within the detection range required by the user; you can also listen to the number of times the buzzer rings (slow ringing: 1 meter/times, fast ringing: 0.5 meters/times) to preliminary determination of the distance between the current product and the obstacle;
- (4) When you hear a long beep of the buzzer, the power indicator (green light) flashes slowly for 3 times and then stays on, indicating that the distance configuration is successful, and exits the distance setting mode;
- (5) When you need to reset a new detection distance, please power on again and repeat the above steps.

### Special Note

- ❖ The default detection distance of the product is 7.5 meters;
- ❖ When using for the first time, the users need to set the maximum detection distance of obstacles according to the actual use scene;
- ❖ When you hear the buzzer "beep. beep. beep...", the current setting distance of watch exceeds the maximum distance of the product (not more than 8 meters), please re-adjust the distance.
- ❖ After the product is powered off, the currently set distance value will be saved. After the user is powered on again, there is no need to reset the sensing distance.

## ◆ Product Installation and Precautions

### ➤ Product Installation:

- ❖ When debugging and installing, make sure that there are no obstacles within the set sensing distance;
- ❖ When installing the product, try to avoid direct sunlight;
- ❖ The minimum height for product installation is 1 meter, and it is recommended to be greater than 1 meter;
- ❖ When setting the sensing distance of the product, it must be more than 0.3 meters;
- ❖ Do not power up the sensor until all electrical wiring to the sensor has been completed;

### ➤ Product Notes:

- ❖ When using for the first time, set the sensing distance according to the application before installation;
- ❖ When the product is used, the reflectivity of the surface of the sensed object is required to be between 10% and 90%;
- ❖ When the product is used, the sensing distance will correspond to the surface of the sensing object. The theoretical reference values are as follows:

Sensing distance	1m	2m	3m	4m	5m	6m	7m	8m
Sensing object surface size (LxW)	4x4 cm	7x7 cm	11x11 cm	14x14 cm	18x18 cm	21x21 cm	25x25 cm	28x28 cm

## ◆ Product Installation Diagram



**【Special Warning】 : In the following cases, the product will have a risk of failure, and users should try to avoid it when using and installing! ! !**

- ❖ The product is at risk of failure when detecting highly reflective (>90%) objects such as mirrors surfaces, smooth floor tiles, and calm milk levels.
- ❖ There is a risk of failure when detects objects with highly reflective (<10%) , such as objects with dark (deep black) surfaces.
- ❖ When the product transmitting and receiving window is covered with dirt, there is a risk of failure, please keep the window clean.
- ❖ In severe weather such as storms, dense fog and haze, there is a risk of failure.
- ❖ The working temperature of the product is  $-10^{\circ}\text{C}\sim 60^{\circ}\text{C}$  , please do not use it outside this temperature range to avoid risk.
- ❖ The storage temperature of the product is  $-20^{\circ}\text{C}\sim 75^{\circ}\text{C}$  , please do not store outside this temperature range to avoid risks.