



# ZETA<sup>®</sup> Low-Power Wide Area Networks

**ZETA Light Sensor**

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## **1. Product Description**

ZETA Light Sensor is a low power illuminance detect sensor which is able to quantify the illuminance value and provide alarm signals if the threshold values are exceeded.

## **2. Applications**

Room lighting detection, lamp aging detection

## **3. Features**

- ✓ Wireless transmission
- ✓ Battery-powered, low power consumption
- ✓ Easy to install, high sensitivity
- ✓ Reliable detection
- ✓ Real-time transmission

## 4. Specifications

Product No.	OPZ1ZT92	
Wireless Features	Transmission protocol	ZETA
	Frequency band	Sub-GHz, adjustable according to local regulations
	Output power	20dBm max, adjustable according to local regulations
Electrical Features	Power supply	Battery, 2*ER14505
	Battery capacity	2*2700 mAh
	Stand-by current	≤ 10 μA
	Working current	≤ 70 mA
Physical Features	Size	66*55*36 mm
	Enclosure material	ABS
	Waterproof level	IP30
	Antenna	External glue stick antenna
Sensor Characteristics	Range	0.1~2000 lux
	Precision	3% *reading + 0.5% *range
Working Environment	Operating temperature	-20℃~+75℃
	Storage temperature	-30℃~+85℃

## 5. Packing List

Light Sensor	1
Battery (ER14505)	2

## **6. Installation**

There are three installation methods: Screw, 3M Adhesive and cable ties.

### **6.1. Screw**

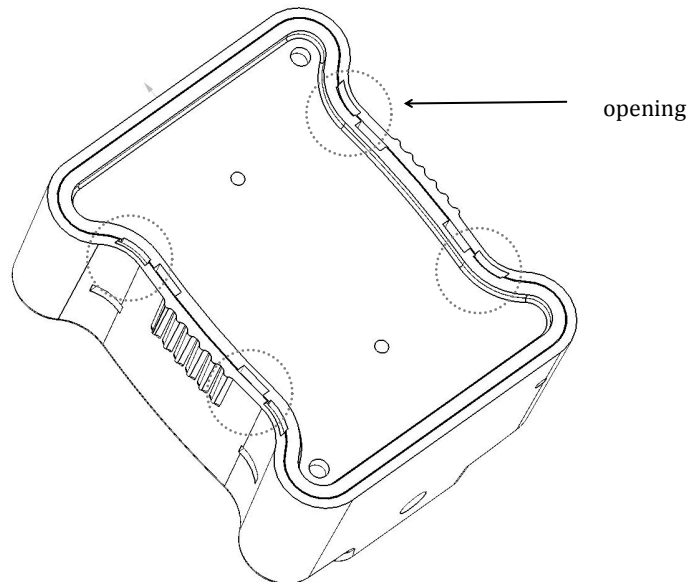
#### **6.1.1.Auxiliary material**

No.	Materials	Quantity
1	self tapping screw (M3*20)	2/device
2	#4 expanded plastic pipe	2
3	Percussion drill, #4 drill bit, hammer	1
4	slotted screwdriver, cross screwdriver	1

#### **6.1.2.Installation instructions**

- Open the device case

Use a slotted screwdriver to open the top cover from the bottom edge.



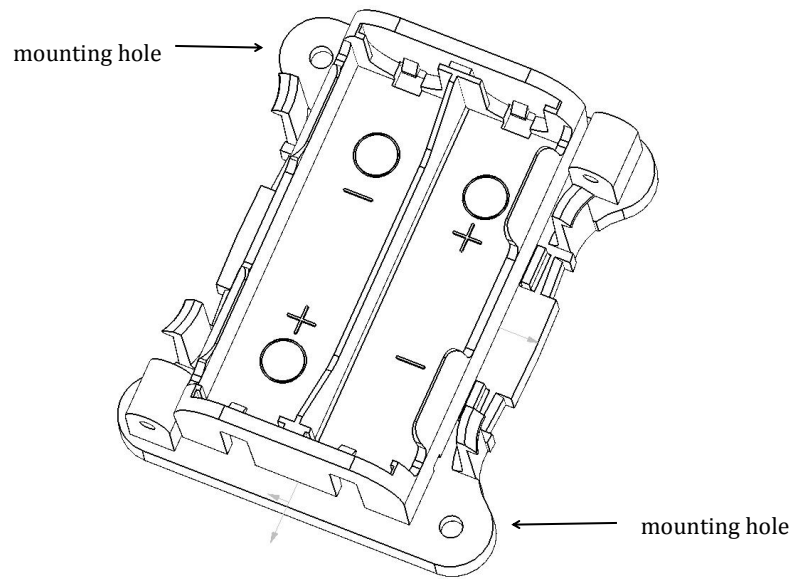
- Punching

Place the device in the mounting position, punch and insert the expanded plastic pipe.

- Fixation

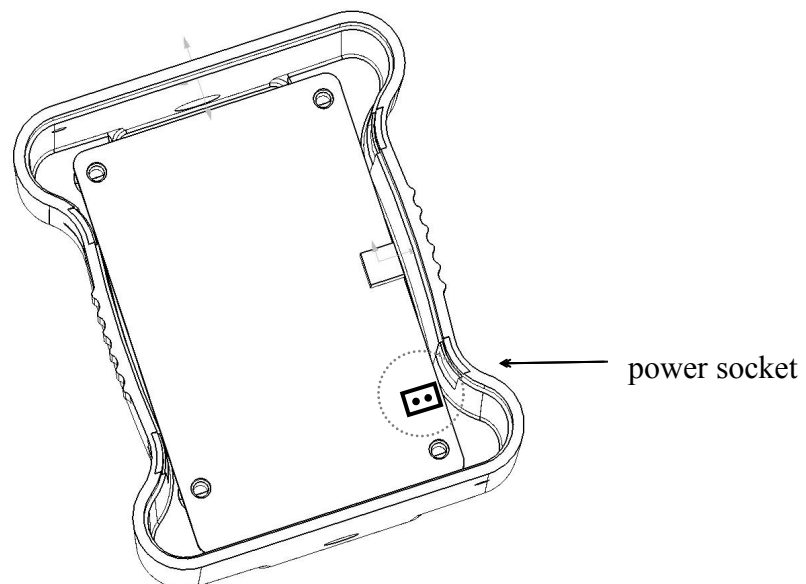
## OPZ1ZT92

Use the self-tapping screws to secure the device in the mounting position.



### ➤ Power on

Insert the power plug into the upper power socket, install two 14505 batteries (remove the insulation sheet for the existing battery), and close the upper cover.



## 6.2. Adhesive 3M

### 6.2.1. Auxiliary material

No.	Materials	Quantity
1	3M seamless thickened double-sided adhesive	5CM
2	Slotted screwdriver, utility knife	2

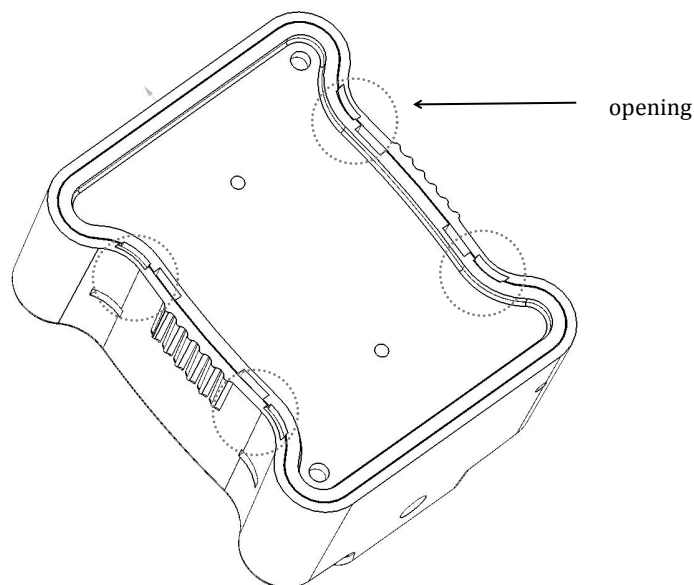
### 6.2.2. Installation instructions

➤ Installation position

Select a flat mounting position, and clean it up.

➤ Open the device case

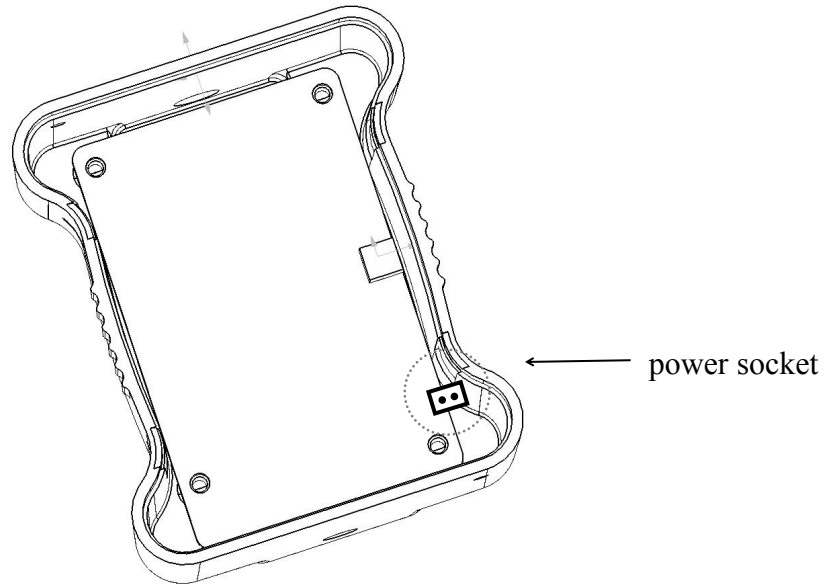
Use a slotted screwdriver to open the top cover from the bottom edge.



➤ Power on

Insert the power plug into the upper power socket, install two 14505 batteries (remove the insulation sheet for the existing battery), and close the upper cover.





➤ Adhesive device

Take the appropriate amount of 3M adhesive, attach it to the back of the sensor, remove the protective film of the 3M adhesive, and install the device to the specified position.

**6.3. Cable Ties**

6.3.1.Auxiliary material

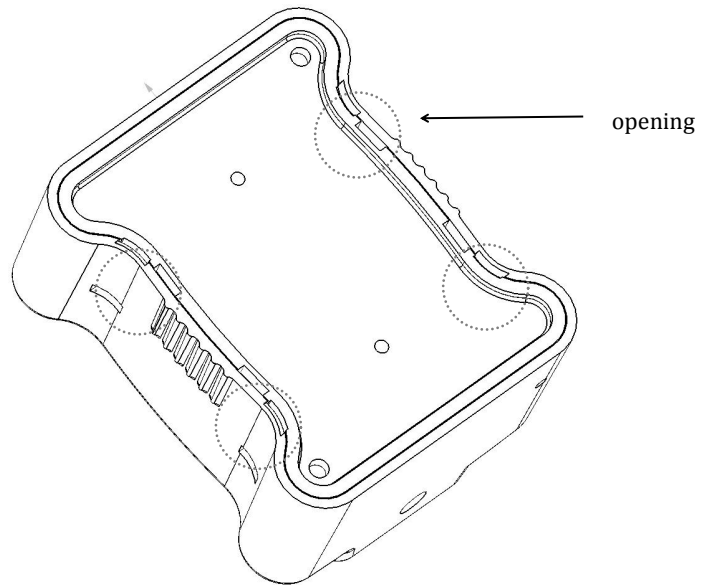
No.	Materials	Quantity
1	Metal cable ties (5*300mm)	2
2	Slotted screwdriver, utility knife	

6.3.2.Installation instructions

➤ Open the device case

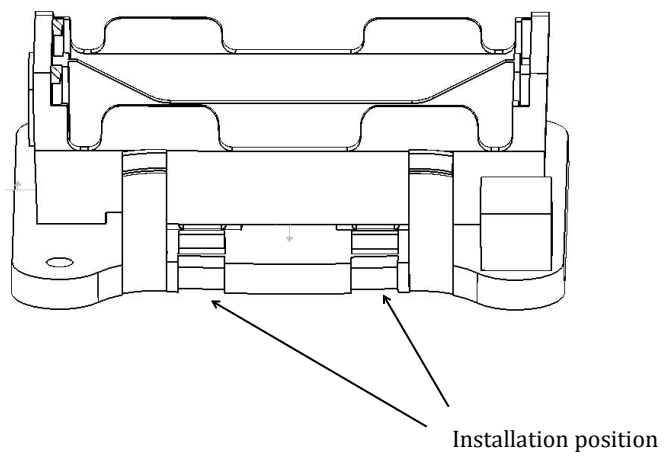
Use a slotted screwdriver to open the top cover from the bottom edge.

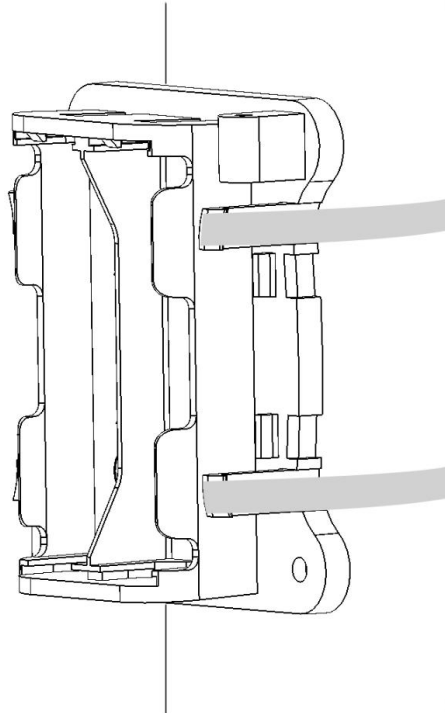
## OPZ1ZT92



### ➤ Fixation

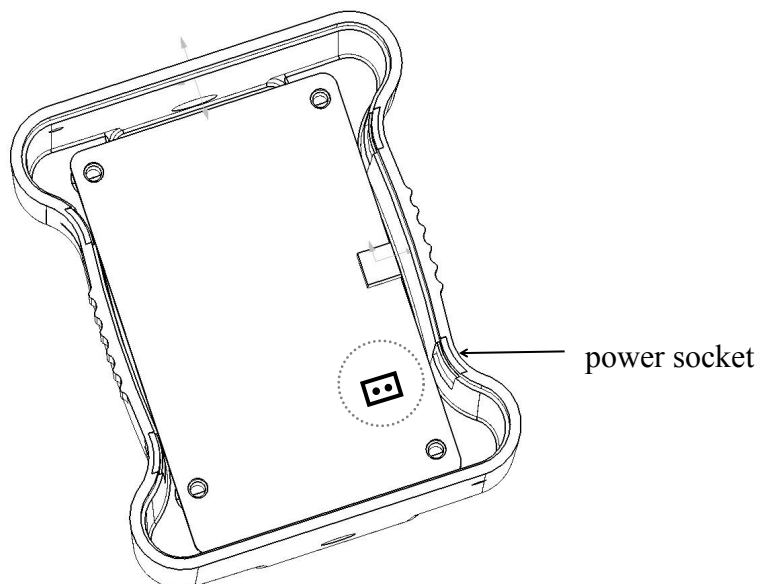
Pass the 2 cable ties through the device and secure to the installation rod





➤ Power on

Insert the power plug into the upper power socket, install two 14505 batteries (remove the insulation sheet for the existing battery), and close the upper cover.



## **7. Use of Device**

### **7.1. Steps for usage**

- Place the device within the coverage of the ZETA network
- Install the battery, and wait for the device to go online.
- After the device is online, the current device status is reported.
- According to the usage scenario, set the policy configuration such as alarm enable status and alarm threshold.
- Daily maintenance and data viewing.

### **7.2. Support function**

- Version number: Report the software version number of the sensor only once after power-on.
- Status report: Report status data periodically according to the setting.
- Set/Query report heartbeat period: can set or query the heartbeat report cycle. (Range: 1~65535 min, default: 2\*60min)
- Set/Query report alarm period: When the detected temperature and humidity exceeds the set threshold, the alarm will be reported on the set period. (Range: 0-255 minutes, default value: 0, which means the alarm is reported only once.)
- Set/Query Alarm Threshold: Set the upper lower alarm threshold for alarms. Once the detected value exceeds the set alarm threshold, the device will report the alarm immediately. (Range: 0-1677721.4, unit 0.1lux, value is 0xFF 0xFF 0xFF means no such threshold is set, please note that the lower threshold should be lower than the upper threshold during setting)
- Set/Query the alarm release threshold: Avoid repeated alarms caused by fluctuations of the detected value. Generally, the default value is used, and no setting is required.
- Set/Query alarm enable: Enable ON means that the alarm status needs to be reported when the threshold is exceeded. Enable Off means no alarm is required even if the threshold is exceeded.
- Set/Query acquisition period: The period of which the device collects sensor information (range: 0-65535 seconds, when the value is 0, it means real-time acquisition).
- Query status: Actively query the current status of the device, including

current light intensity, alarm enable information.

- Query version number: You can query the software version number of the current sensor.

## **8. Common faults and handling**

- Ensure ZETA signal coverage
- Ensure that the device is powered on, and the ZETA network device management platform can observe that the ZETA module is on line
- Check the battery usage of the device. When the battery is low, replace the battery in time.

**FCC WARNING**

Any Changes expressly or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference,  
and (2) this device must accept any interference received, including interference that may cause undesired operation.

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