



www.theorylight.com



Theorylight Series

TLSE13 Smart Sensor

(Microwave motion sensor + infrared illumination light sensor)



ZigBee network control



Motion Sensor



Infrared illumination light sensor



Theorylight Remote Control



Regional Groups



Dimming control



On/off control

CE

RoHS

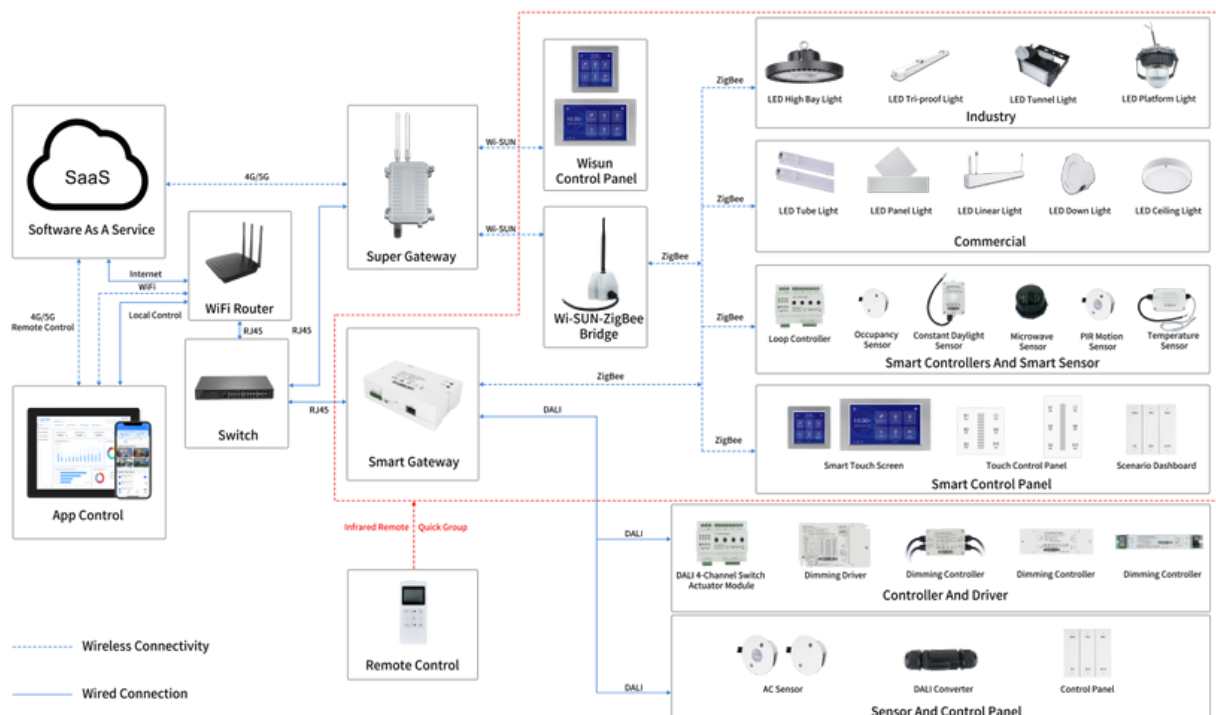
Application Scenario

- Warehouse
- Workshop
- Parking lot
- Shopping Mall
- School
- Corridor

Features

- TLSE13-TLZ is a motion sensor with built-in ZigBee module.
- Input 12Vdc.
- 5V or 10V PWM dimming signal output.
- Support ZigBee 3.0 protocol.
- Infrared remote control.
- 5.8G microwave sensing.
- Infrared illumination light sensing.
- Support OTA upgrade.
- Communication distance up to 30 meters.

System Diagram



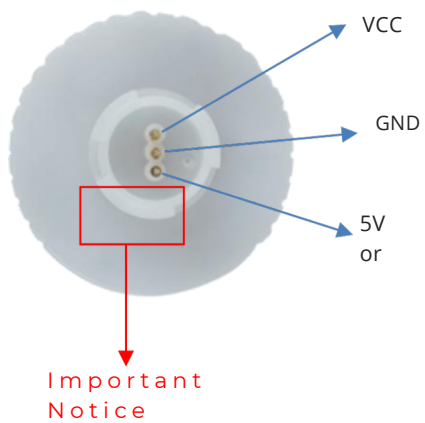
Product Parameters

Warranty 5-year warranty

Application environment parameters

Operating temperature -20°C ~60°C

Pin Definition



Electrical parameters

Input voltage	DC12V (power ripple requirement <400mV) > 200mA 5V or 10V
Input current	
Output signal	PWM
Microwave frequency band	5.8GHz±75Mhz, ISM band

Structural parameters

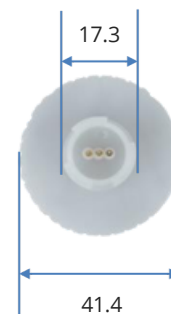
Structural material	PC
Appearance color	VO
	White

Control and dimming

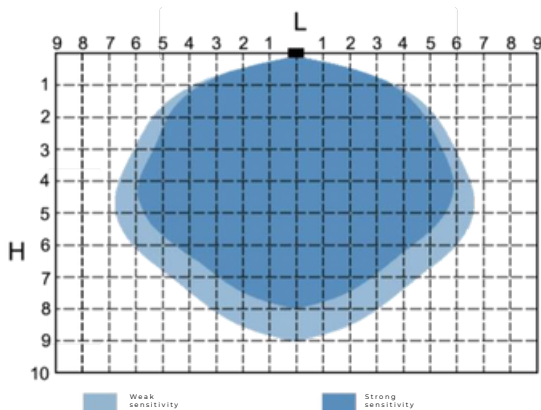
Dimming	ZigBee/ Microwave Motion Sensor + Red
Smart Components	External illumination light perception

Dimensions

Unit: mm

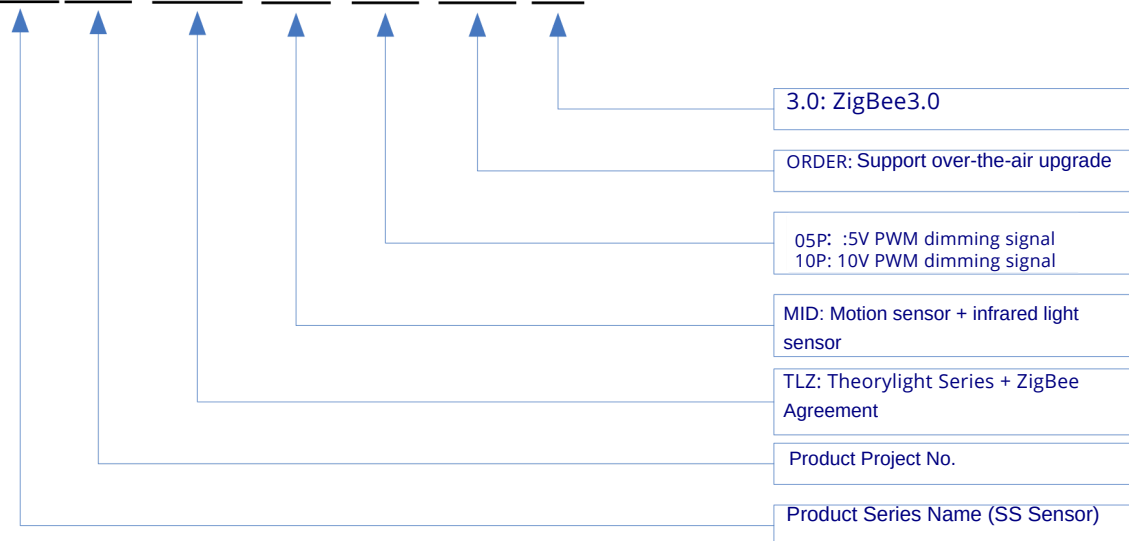


Sensor detection range



Model code

TLSE13-TLZ-MID-X10XPX-OTA-3.0



Product Parameters

Product Model	Smart Module	Input voltage	Output signal	Infrared remote control distance	Wireless communication distance	Maximum detection range	Illumination range
TLSE13-TLZ-MID-05P-OTA-3.0	Microwave Motion MID= Sensor+ Infrared illumination light sensor	DC12V (power ripple requirement <400mV)	5V PWM	10m	30m	8m	0-600Lux
TLSE13-TLZ-MID-10P-OTA-3.0			10V PWM				

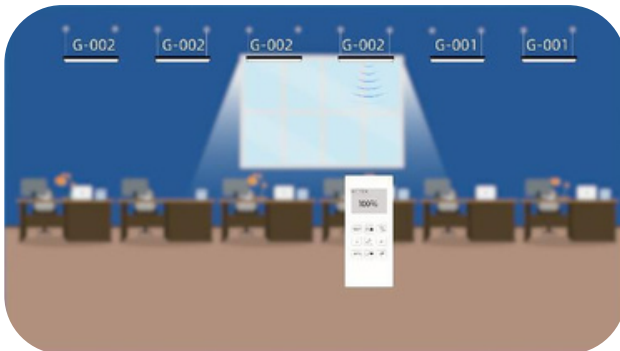
Packaging data

Product Model	net weight (g)	Gross Weight (g)	Packing size (mm)	Packaging
TLSE13-TLZ-MID-05P-OTA-3.0	18.3	29	41*41*39.6	1pc/box
TLSE13-TLZ-MID-10P-OTA-3.0	18.3	29	41*41*39.6	1pc/box

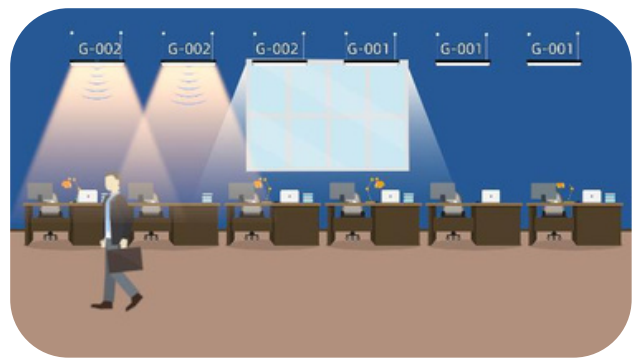
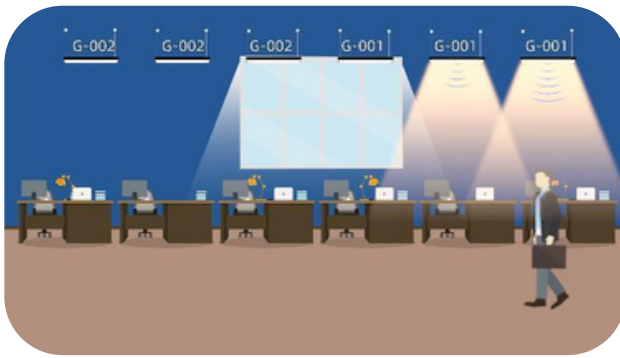
Set Operation

1. The sensor control needs to be used with our TLCD01 remote controller.
2. For detailed operation, please refer to the "TLCD01 Remote Controller Manual"

Typical working scenarios



Technology's Theorylight smart lamps have built-in motion sensors and light sensors, and can also be connected to external smart sensors. The "Theorylight" remote control can be used to edit groups and set parameters of the devices. By adopting standard ZigBee technology, the Theorylight series of lamps have the inherent advantages of long transmission distance, multiple channels, and automatic relay.



Users can use the Theorylight remote control to set the sensor parameters of Theorylight lamps in groups or individually with one click; they can also use the Theorylight remote control to adjust the brightness of individual lamps or groups. Theorylight smart lamps work together with motion sensors within the same group, and the light sensor intelligently controls the lamp switches according to the ambient brightness.

Theorylight smart sensors are available in a variety of models, matching panel lights, linear lights, tri-proof lights, mining lights, and T8 tubes. They can be widely used in different scenarios such as offices, warehouses, factories, and parking lots.