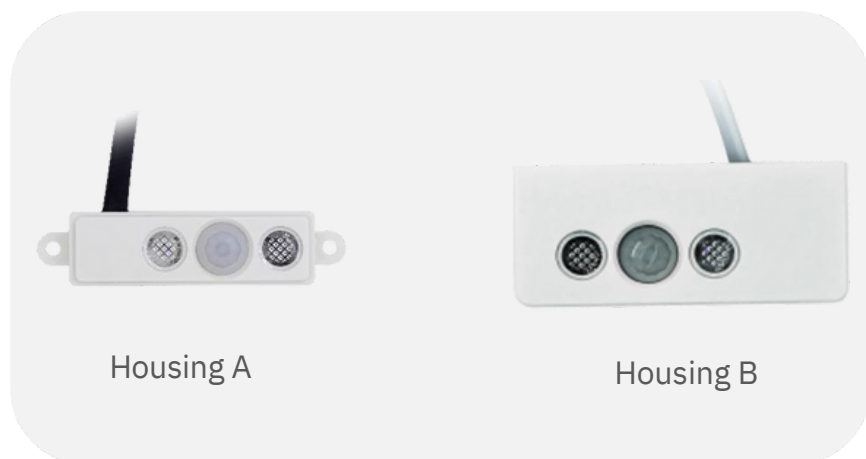




www.theorylight.com



Theorylight

TLSD15 Smart Sensor

(PIR Motion Sensor / Constant Daylight Sensor / PIR

Motion Sensor and Constant Daylight Sensor)



Zigbee Mesh
Network Control



Motion Sensor



Daylight Sensor



Theorylight
Remote Control



Zoning & Grouping



Dimming Control



ON/OFF

CE

RoHS

Applications

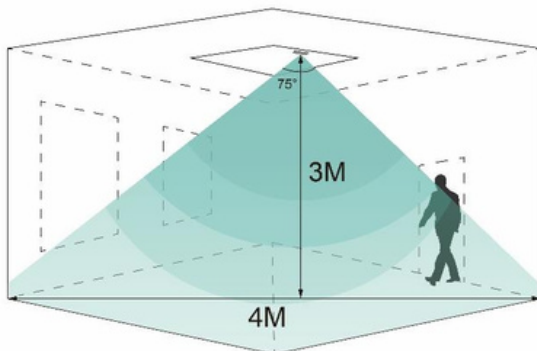
- Offices
- Schools
- Shopping Malls
- Warehouses

Features

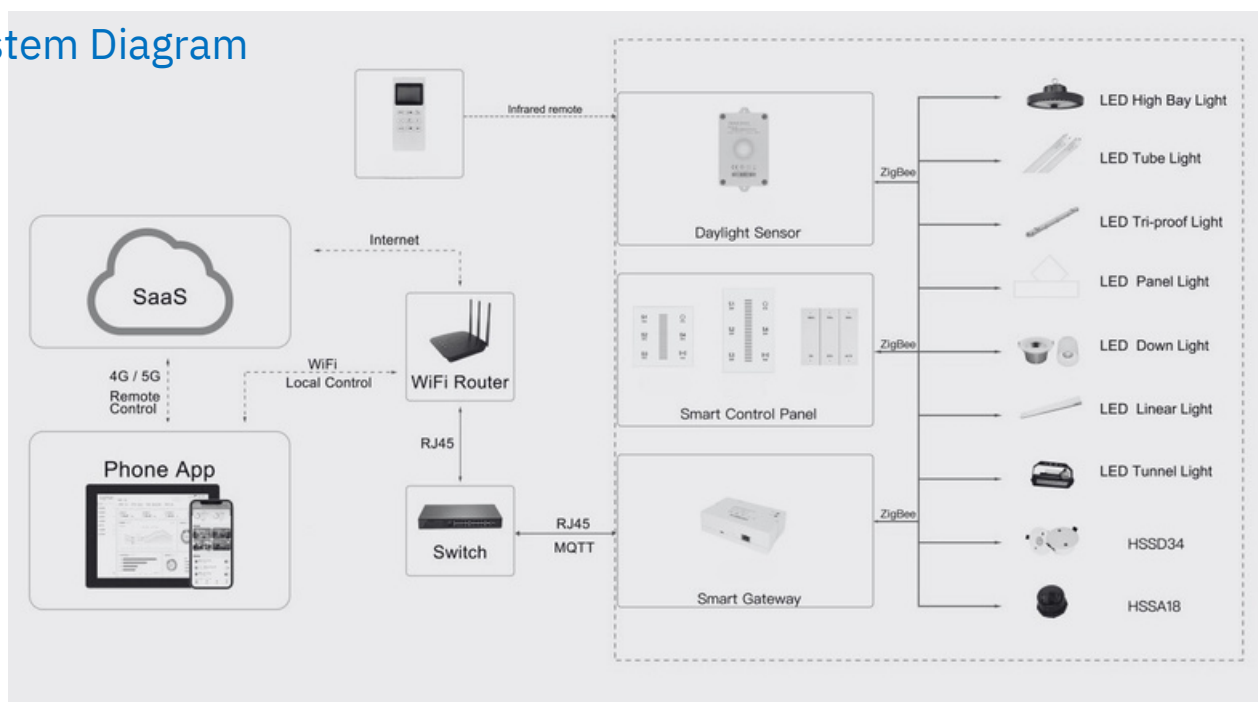
- TLSD15-TL-Z is a DC sensor with a 6.5V/12V DC input and a 5V/10V PWM output.
- Input 6.5-12Vdc.
- Output 5V/10V PWM dimming signal.
- Built in ZigBee 3.0 wireless module.
- Infrared remote control.
- Supporting infrared human body sensors.
- Supports constant illuminance light sensing.
- Support OTA Upgrade.



Detection Range



System Diagram



Product Data

IEC Protection class	IP20 5
Warranty	Years CE ,
Certificate	RoTL

Application Conditions

Operating Temperature	-20 °C to ~ 35 °C
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Operating and Electrical

Wireless Frequency	2.4GHz
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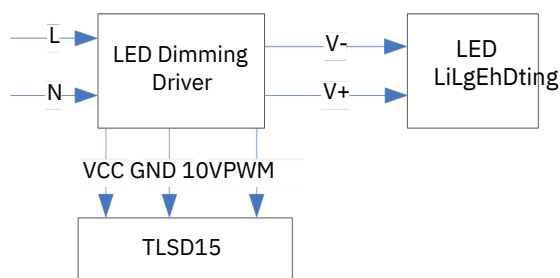
Mechanical and Housing

Structure Material	PC V0
Fixture Color	White
Installation method	Fixed with external screws

Controls and Dimming

Dimmable	PWM Dimmable	ZigBee/PIR	Motion Sensor	/
Intelligent Control	Constant Daylight Sensor			

Wiring Diagram

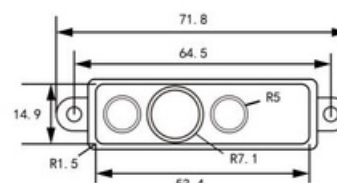
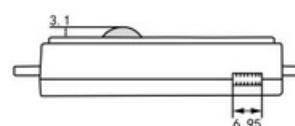
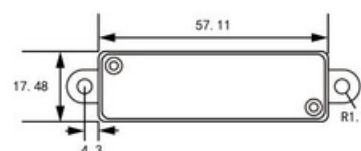


Line color	Function
Black	GND
Red	VCC
Yellow	5V PWM / 10V PWM

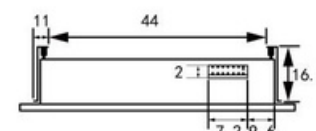
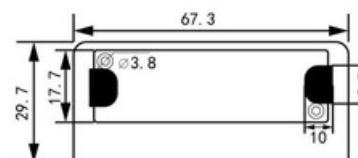
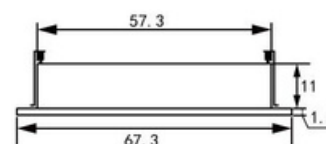
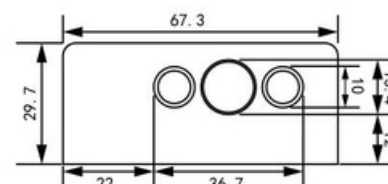
Note: The wire harness color is defined as our regular product.

Draw ing

Unit : mm



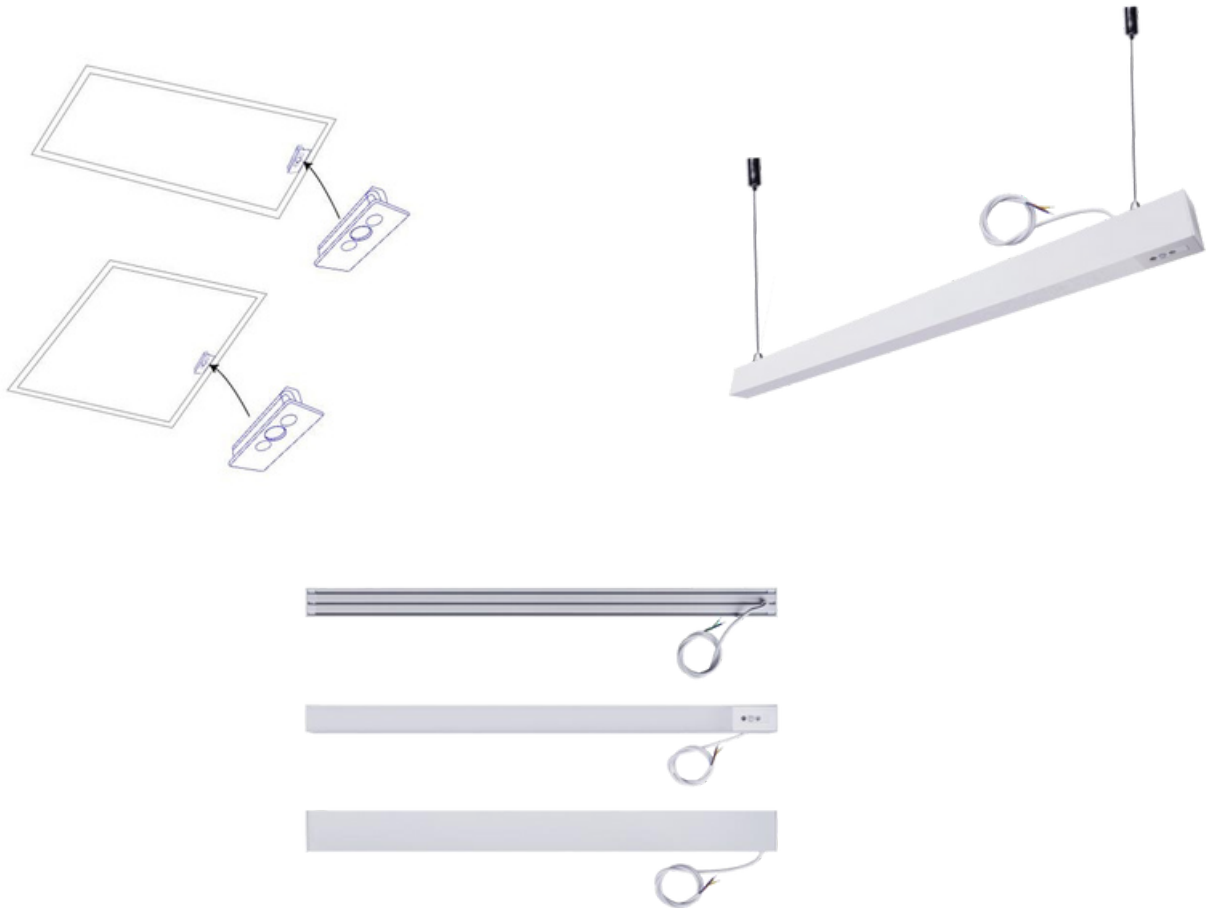
Housing A



Housing B

Precautions

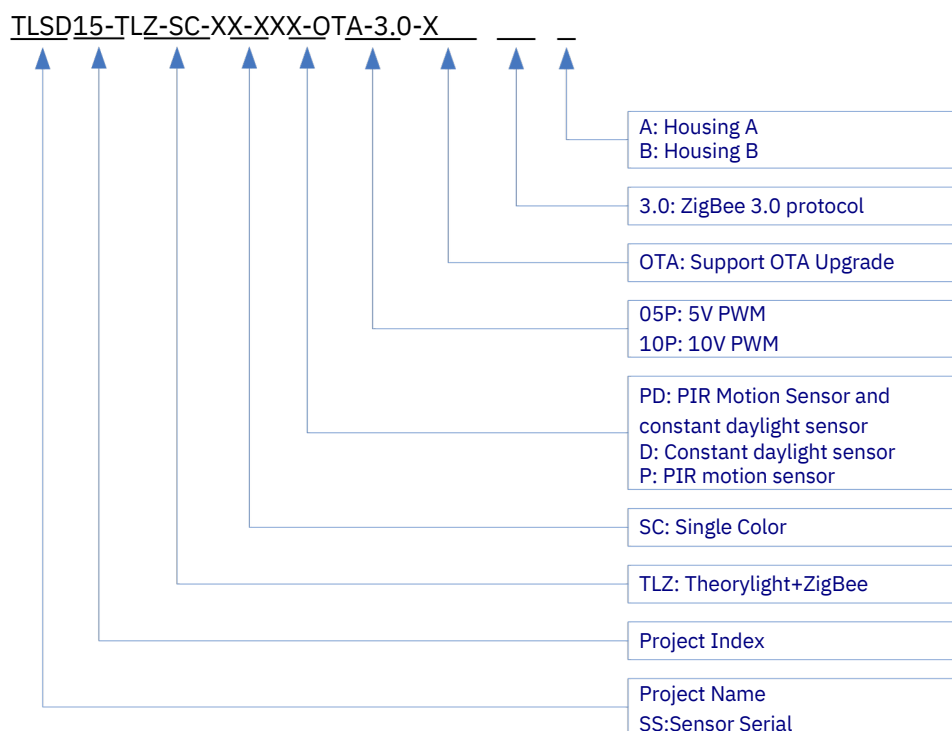
- Sensors should be installed by professional electricians, please cutoff the power before installation.
- The sensing distance will be affected by the installation height of the sensor, the size of the detected object, movements speed, and installation environment.
- The parameters of sensors may need to be configured differently in different installation environments.
- This sensor is only for indoor use, and outdoor use may cause false triggering due to wind, rain, and moving objects around.
- Sensors should not be installed facing the air conditioning vent, and non human moving objects such as the exhaust vent may cause false triggering.
- The 2.4GRF signal of the product cannot penetrate metal, so avoid installing it in enclosed or semi enclosed metal lamps. The communication distance of the sensor may vary depending on the installation position.
- This product requires a PWM dimming LED driver power supply to achieve dimming function. Different dimming power supplies may have different low brightness effects.



Reset method

Using the TLCD01 remote control to reset, short press the RESET button, and the lamp light will flash three times to prove successful reset.

Part No.



Product Parameter HousingA

Model Number	Smart Modules	Input voltage	Output Signal	Remote control distance	Remote control angle	Wireless communication distance	PIR maximum detection range	PIR detection angle	Illuminance detection range
TLSD15-TLZ-SC-PD-05P-OTA-3.0-A	PD:PIR Motion Sensor and Constant Daylight Sensor	DC6.5V	5V PWM 1mA (M AX)	10m	≤45°	≤20m	≤6m	≤75°	0-8000Lux
TLSD15-TLZ-SC-P-05P-OTA-3.0-A	P:PIR Motion Sensor								
TLSD15-TLZ-SC-D-05P-OTA-3.0-A	D:Constant Daylight Sensor								
TLSD15-TLZ-SC-PD-10P-OTA-3.0-A	PD:PIR Motion Sensor and Constant Daylight Sensor	DC12V	10V PWM 1mA (M AX)	10m	≤45°	≤20m	≤6m	≤75°	0-8000Lux
TLSD15-TLZ-SC-P-10P-OTA-3.0-A	P:PIR Motion Sensor								
TLSD15-TLZ-SC-D-10P-OTA-3.0-A	D:Constant Daylight Sensor								

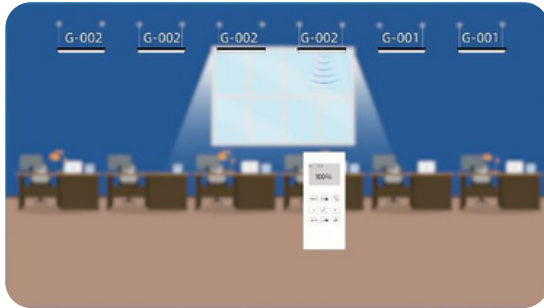
Product Parameter HousingB

Model Number	Smart Modules	Input voltage	Output Signal	Remote control distance	Remote control angle	Wireless communication distance	PIR maximum detection range	PIR detection angle	Illuminance detection range
TLSD15-TLZ-SC-PD-05P-OTA-3.0-B	PD:PIR Motion Sensor and Constant Daylight Sensor	DC6.5V	5V PWM 1mA (M AX)	10m	≤45°	≤20m	≤6m	≤75°	0-8000Lux
TLSD15-TLZ-SC-P-05P-OTA-3.0-B	P:PIR Motion Sensor								
TLSD15-TLZ-SC-D-05P-OTA-3.0-B	D:Constant Daylight Sensor								
TLSD15-TLZ-SC-PD-10P-OTA-3.0-B	PD:PIR Motion Sensor and Constant Daylight Sensor	DC12V	10V PWM 1mA (M AX)	10m	≤45°	≤20m	≤6m	≤75°	0-8000Lux
TLSD15-TLZ-SC-P-10P-OTA-3.0-B	P:PIR Motion Sensor								
TLSD15-TLZ-SC-D-10P-OTA-3.0-B	D:Constant Daylight Sensor								

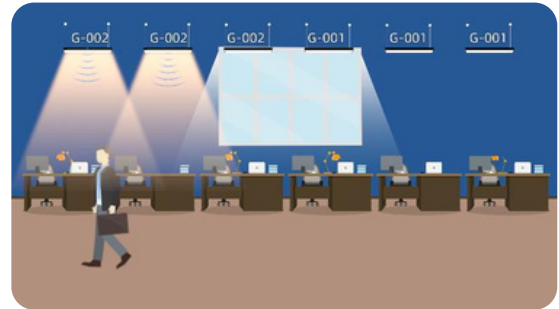
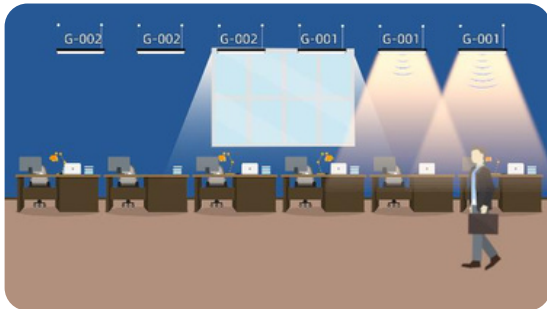
Package

Model Number	Net Weight (g)	Gross Weight (g)	Package Size (mm)	Package
Housing A	15.5g	23.3g	36*36*82mm	1Pcs/Box
Housing B	18.5g	28.3g	36*36*82mm	1Pcs/Box

Typical Working Scenarios



The “Theorylight” smart lamps of HOMA are embedded with motion sensor and daylight sensor, using a “Theorylight” remote control, users can set grouping and parameters very fast and convenient. By adopting the standard ZigBee technology, “Theorylight” has the inborn advantages like long transmission distance, multiple channels and mesh network.



Users can set the sensor parameters of one group or individual lamp with one button, and change lamp brightness. In one group, the motion sensors work together to control these grouped lamps, and the daylight sensors control the individual lamp on/off according to the ambient brightness.

The Theorylight series include panel, linear light, tri-proof light, high bay, LED tube. This kind of smart lamps can be used for industrial and commercial area, example offices, warehouses, factories, parking and others.