



www.theorylight.com



Theorylight

TLSD23 Smart Sensor

Microwave Motion Sensor + Infrared Daylight Sensor



ZigBee Mesh
Network Control



Motion Sensor



Daylight Sensor



Theorylight
Remote Control



Zoning & Grouping



Dimming Control



ON/OFF

CE

RoHS

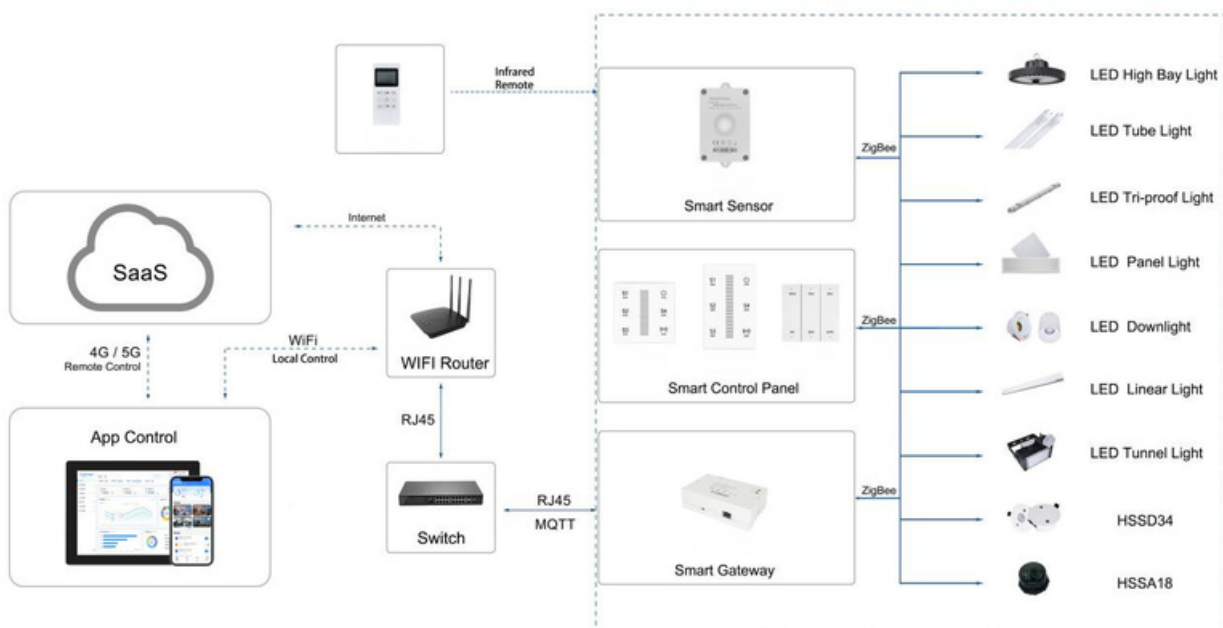
Applications

- Warehouse
- Production Workshop
- Parking Area
- Shopping Malls
- Schools
- Corridor

Features

- TLSD23-TLZ is a ZigBee
- DC sensor with a 12VDC input and a 10V PWM 1K dimming output.
- The sensor operates with a 12VDC power supply.
- A 10V PWM output for controlling the brightness of lights with a frequency of 1KHz.
- Built-in ZigBee 3.0 Wireless Module.
- Infrared remote control.
- 5.8G Microwave Sensing.
- Infrared Daylight Sensor.
- IP65 Protection. Supports OTA upgrades.

System Diagram



Product Data

Warranty	5 Years
IEC Protection class	IP 65

Operating and Electrical

Input voltage	DC12V((power ripple requirement<200mV)
Input current	200mA
Output signal	10V
Microwave frequency	PWM 5. 8GHz $\pm$ 75M hz

Application Conditions

OperatingTemperature	-20°C ~70°C
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Mechanical and Housing

Structural materials	PC V0
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Wiring Diagram

PCBA wiring port definition

Port silk screen	Port description
VCC	Input 12Vdc
GND	Input Ground
DIM	10V PWM

Wire harness color

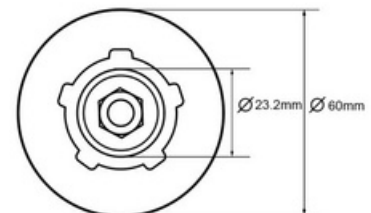
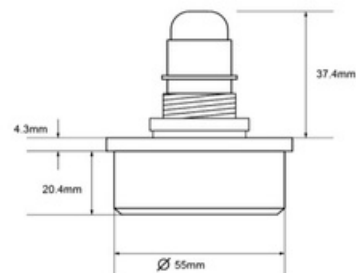
Line color	Port description
Black & White	Input 12Vdc
Grey	Input Ground
Purple	10V PWM

Controls and Dimming

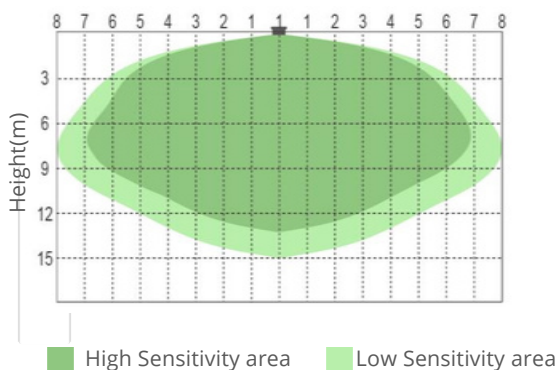
Dimmable	10V PWM
Intelligent Control	ZigBee / Microwave motion sensor + Infrared Daylight Sensor

Draw ing

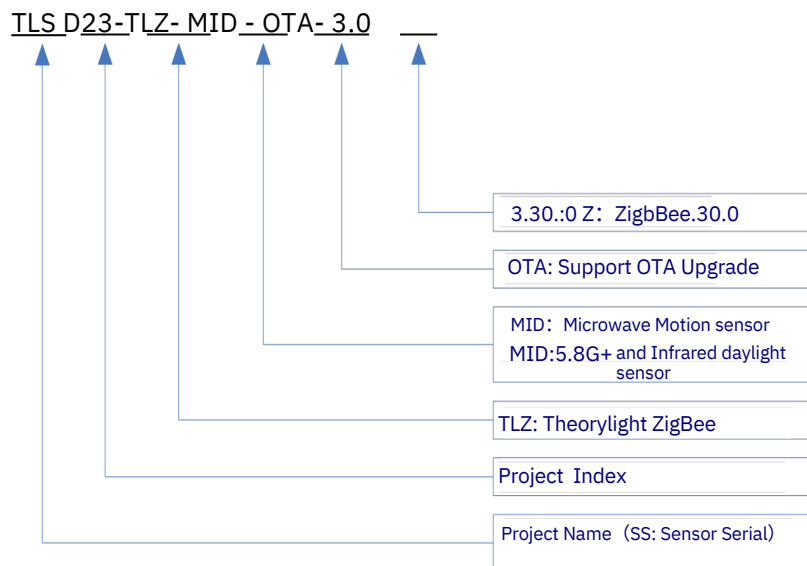
Unit: mm



Detection Range



Part No.



Product Parameter

Model Number	Smart Modules	Input voltage	Output Signal	Remote control distance	Wireless communication distance	Maximum detection range	Illuminance detection range
TLSD23-TLZ-MID-OTA-3.0	MID: Microwave motion sensor + Infrared Daylight Sensor	DC12V (Power ripple requirements<200mV)	10V PWM	15m	30m	13m	0-600Lux

Package

Model Number	Smart Modules	Net Weight (g)	Gross Weight(g)	Package Size (mm)	Maximum detection range	Maximum illumination
TLSD23-TLZ-MID-OTA-3.0		55.7	83.4	84*62*109	1pce/box	

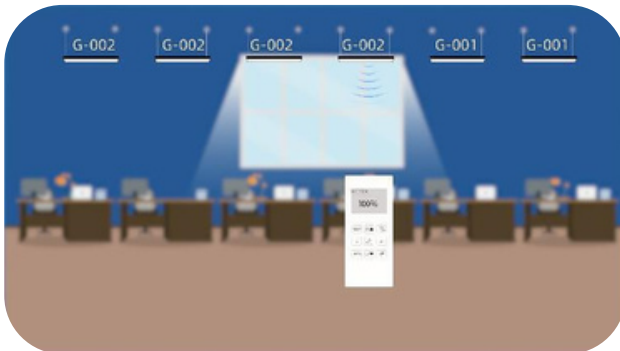
Setup Operations

For detailed operations, please refer to the 《TLCD01 infrared remote control operation manual.pdf》

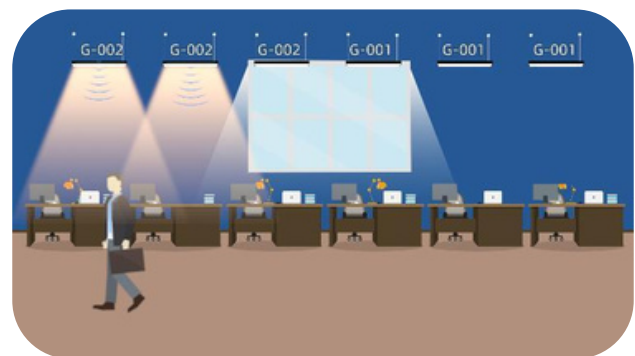
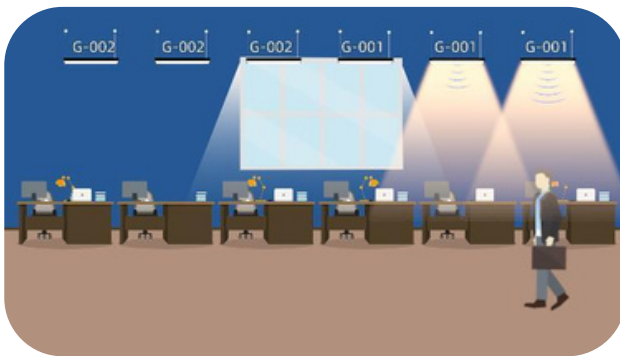
Device Reset

You can use the TLCD01 remote control, briefly press the Reset key to reset.
The light of the luminaire will flash three times, indicating that the reset is successful.

Typical Working Scenarios



The "Theorylight" smart lamps 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 lamps 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.