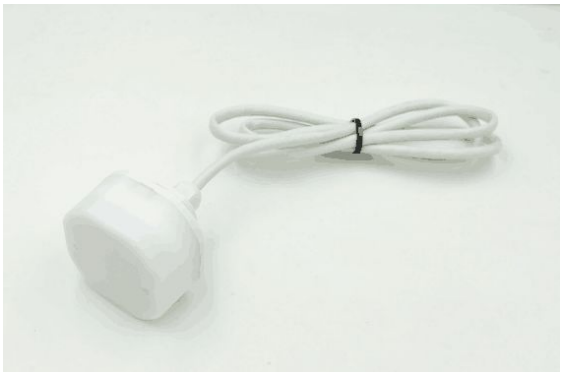
1. Features



- Operating voltage 12-24V DC, suitable to DC systems or 12-24V DC output LED drivers.
- Mini microwave sensor, mounting height is 15m Max, suitable to install in most warehouses.
- Works with 0-10V dimmable LED driver for 2-step or 3-step dimming function.
- Works with remote controller, easy to adjust sensor parameters.

2. Parameter

Input	Operating Voltage Rage	N/A
	DC Input Voltage	12-24V DC ±1V
	Rated Voltage	12/24V
	No-load Power	N/A
	Stand-by Power	<0.3W
	Surge Test	N/A
Output	Working Mode	0-10V DC
	Type of Load	N/A
	Load Capacity	N/A
	Current of Load	N/A
	Max. Surge Capacity	N/A
Dim Interface	1-10V Dimming	< 50mA （Non-constant source）
	Synchronous Control	N/A
	High Low-level	N/A
	PWM Control	N/A
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz，ISM Band.
	Transmitting power	1mW Max.
	Hold time	20min
	Stand-by DIM Level	30%(2.9-3.1V)
	Stand-by Period	10min
	Detection Area	100%
	Daylight Sensor	5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable
	Daylight on/off	N/A
	Detecting Radius	5-7m (mounting height 8m) See note 2

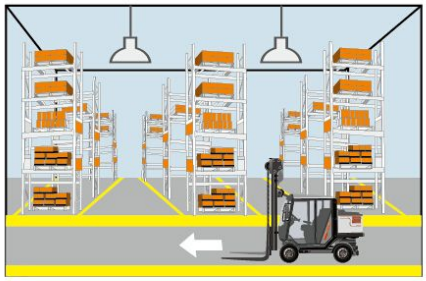
	Mounting Height	15m Max
	Detecting Angle	150°(wall mounting) 360°(ceiling mounting)
Wireless Module	Operating Frequency	N/A
	Transmitting power	N/A
	Transmitting distance	N/A
	Modulation mode	N/A
	Number of coding	N/A
Operating Environment	Operating Temperature	-35℃…+55℃
	Storage Temperature	Temperature: -40℃…+80℃; Humidity: 10%-95% (non-condensing)
Certificate Standards	Safety standards	EN60669-2-1, EN60669-1
	EMC standards	EN55015, EN61000-3-2, EN61000-3-3, EN61547
	Environmental Requirement	Compliant to RoHS
	Certificate	CE
Others	Wiring	UL21996,3*22AWG exposed line length: 300mm input terminal :internal stripping 15±1mm, external stripping 6±0.5mm, soak tin
	IP Rating	IP65
	Protection Class	Class II
	Installation	External mounting
	Dimension	¢55*41mm
	Package	White box+ White box tags+ Clapboard+ Carton(K=A)
	Net Weight	65g
	Lifetime	50,000h @ Ta Full load

Note

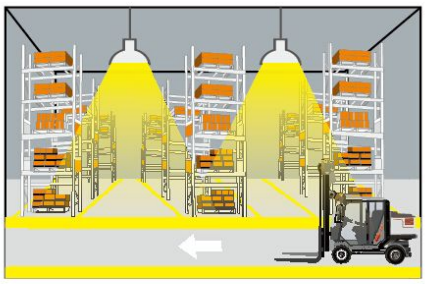
1. “N/A”means not available.
2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.

3. Function

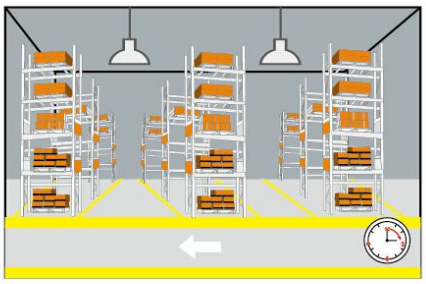
1) On/OFF Function (stand-by period be set to “0”s)



1 With sufficient ambient light, the light will not be switched on even if with motion signal.

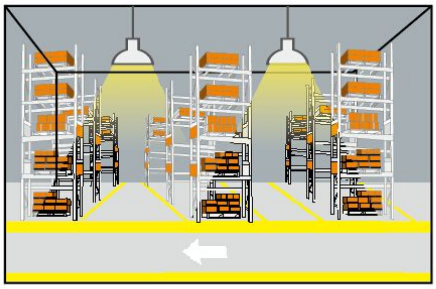


2 With insufficient ambient light, the sensor switches on the light when motion is detected.

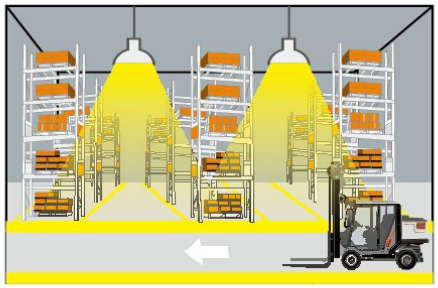


3 After elapse of hold time, the sensor switches off the light when no motion is detected.

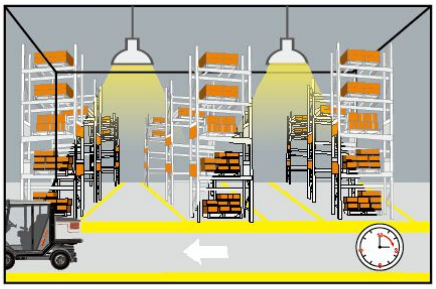
2) 2-step dimming function (stand-by period be set to “+∞”)



1 If there is no motion detected, the light will be remained at a low light level all the time.

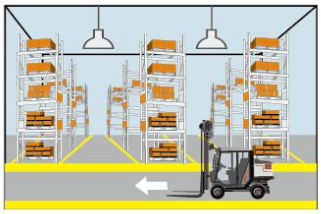


2 When motion is detected, the sensor will switch on the light to 100% brighteness

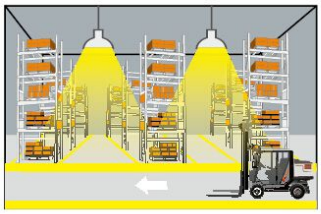


3 After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

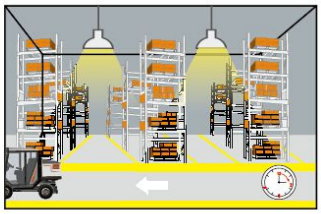
3) 3-step dimming function (stand-by period be set to “10S/1min/3min/5min/10min/30min”)



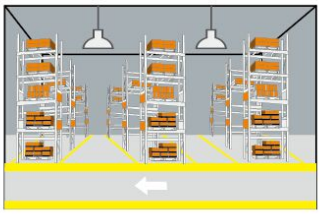
1 With sufficient ambient light, the light will not be switched on even if with motion signal.



2 With insufficient ambient light, the sensor switches on the light when motion is detected.

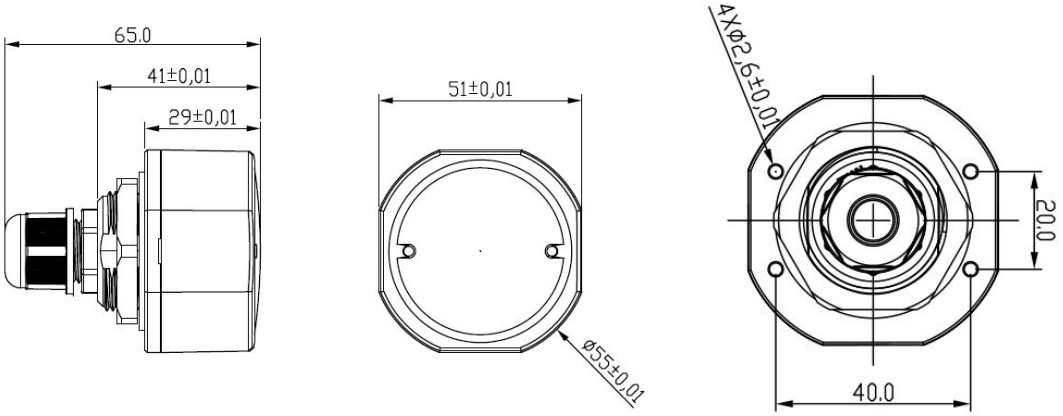


3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.

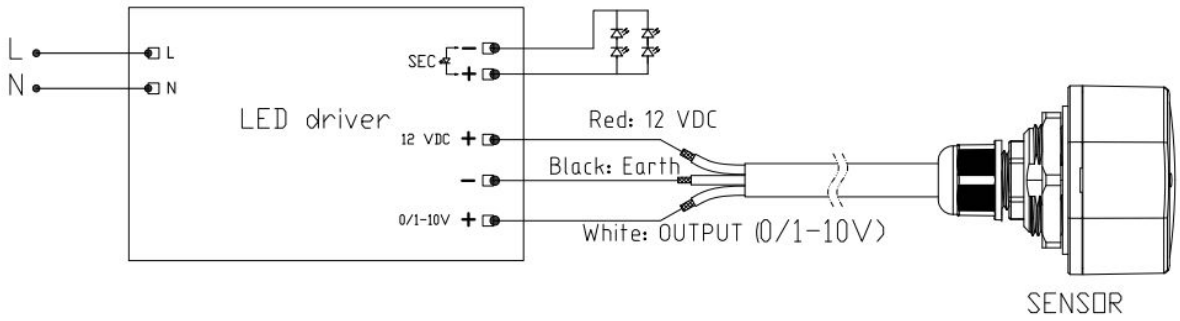


4 After elapse of standby period, the sensor switches off the light if no motion is detected in the detection zone.

4. Dimension (mm)

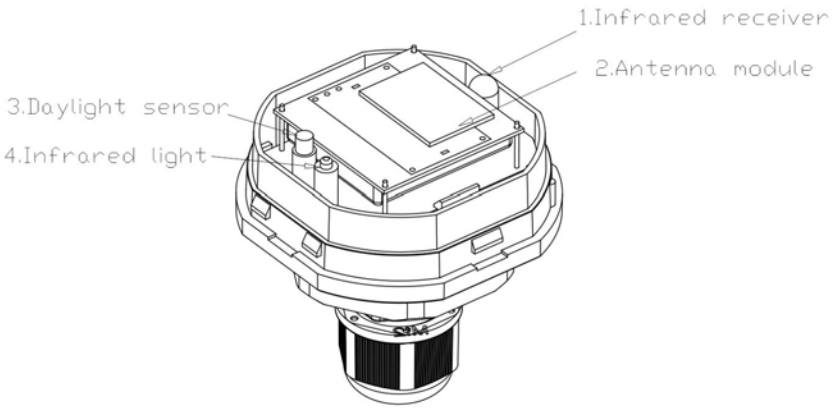


5. Wiring



*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor.

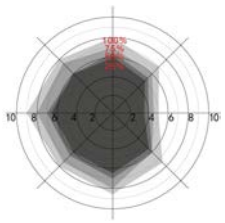
6. Structure



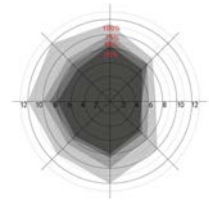
7. Radiation Pattern

Ceiling mounting

Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%

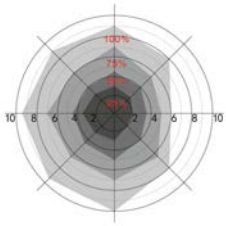


Normal moving (Speed:1m/s)

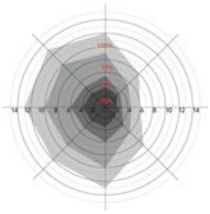


Slow moving (Speed 0.3m/s)

Ceiling mounted height: 12m
Sensitivity: 100%/75%/50%/25%

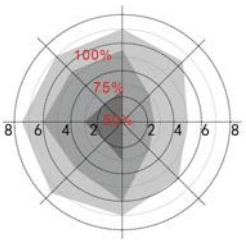


Normal moving (Speed:1m/s)

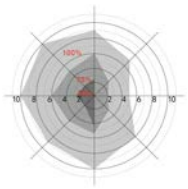


Slow moving (Speed 0.3m/s)

Ceiling mounted height: 15m（*）
Sensitivity: 100%/75%/50%



Normal moving (Speed:1m/s)

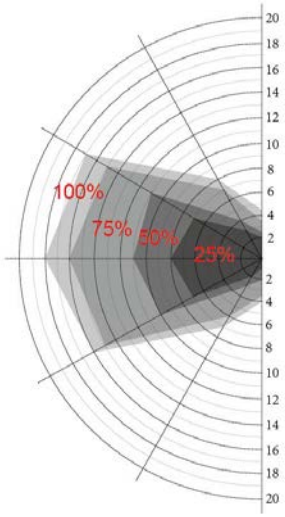


Slow moving (Speed 0.3m/s)

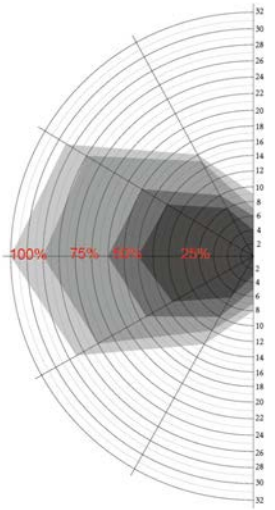
*Only 100%/75%/50% detection sensitivity is workable when installed at 15m mounting height. 25% sensitivity is not able to detect motion signal.

Wall mounting

Horizon mounted height: 2m
Sensitivity: 100%/75%/50%/25%

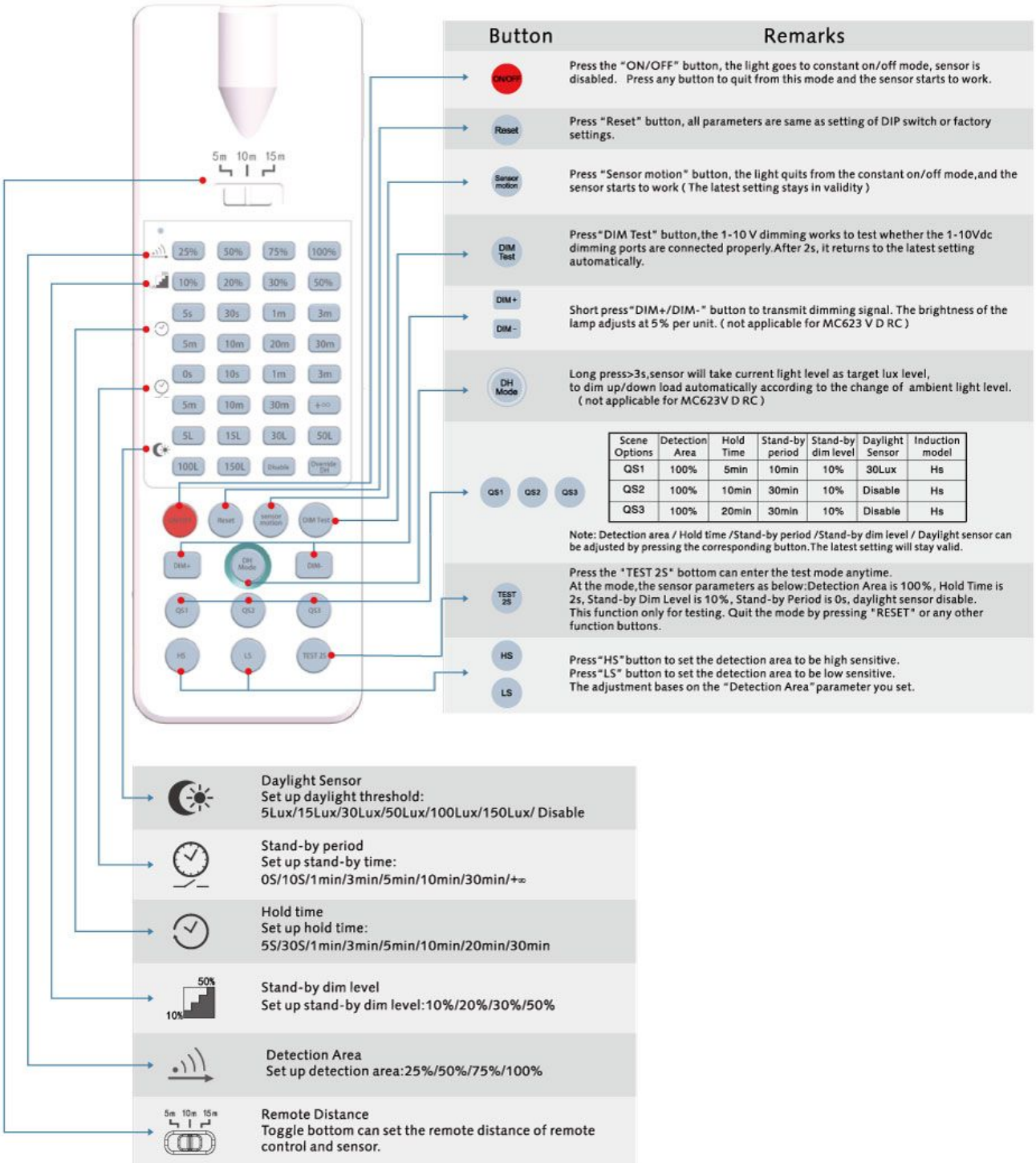


Normal moving (Speed：1m/s)



Slow moving (Speed 0.3m/s)

8. Remote Control



9. Initialization

1) On/Off function /3-step dimming function:

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it turns off the light. During the initialization, the sensor is not able to detect movement.

2) 2-step dimming function:

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it dims the light to a low light level (set by stand-by dim level). During the initialization, the sensor is not able to detect movement.

10. Factory Setting

Detection area: 100%, Hold Time: 20 min, Stand-by Period: 10 min, Stand-by dim level: 30%, Daylight Sensor: Disable

11. Application Notice

1/ The sensor is designed for indoor use only. Outdoor use for a long time may reduce the waterproof effects. The raining or wind blowing may trigger the microwave sensor even if without human motion when outdoor use.

2/ The distance between any two sensors should be at least 3m to avoid interference with each other.

3/ When the microwave sensor is installed in a metal lighting fixture or space with large reflector, for example a warehouse with metal roof, the microwave will be reflected and cause the lights permanently illuminated even if without motion signal. Please reduce the detection area (sensitivity) to solve the problems,

or contact the microwave sensor manufacturer to provide technical support.

4/ Make sure the sensor not close to or be blocked by high density material, such as metal, glass, concrete walls etc. The materials will reduce or block microwave and cause false trigger.

5/ Make sure there are no fans or other vibrating objects in installation area. The movements will trigger sensor as well.