Highbay 5.8GHz Microwave Motion Sensor

PRODUCT.: _Highbay 5.8GHz Microwave Motion Sensor_

MODEL NO.: _MS033C_

SPEC NO.: _____

R & D DEPARTMENT		
WRITED BY	CHECKED	APPROVED

Product Features

》 13m detection range for highbay light application.
》 0-10V dimming output build in with daylight sensor, lux on and lux off function available.
》 IP65, 3.5mm audio jack connector dedicated for highbay UFO.
》 Dedicated socket for fast pluggable installation or remove the sensor.
》 Remote control setting.
》 5 years warranty.
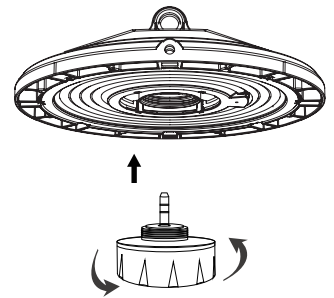
## Technical data

Input	Operating voltage	11-15V DC
	Operating current	≤22mA
Output	Output	0-10V
Sensor Parameters	Microwave frequency	5.8GHz±75MHz
	Microwave power	<0.3mW
	Sensitivity	100%/75%/50%/25%
	Hold time	3s/30s/90s/3min/5min/15min/20min/30min
	Daylight threshold	5Lux/15Lux/50Lux/100Lux/300Lux/Disable
	Stand-by period	0s/5s/30s/3min/5min/15min/45min/+∞
	Stand-by dimming level	10%/20%/30%/50%
	Mounting height	Max.13m (Ceiling mounted)
	Detection range	Radius 6m (Ceiling mounted 13m)
	Detection Angle	30°-150°
	Operating temperature	-35°C~70°C
	IP rating	IP65
Note	The sensor setting pls refer t o remote controller MR003	

Dimension (Unit: mm)

Wiring diagram

Red: VCC
White: DIM
Black: GND
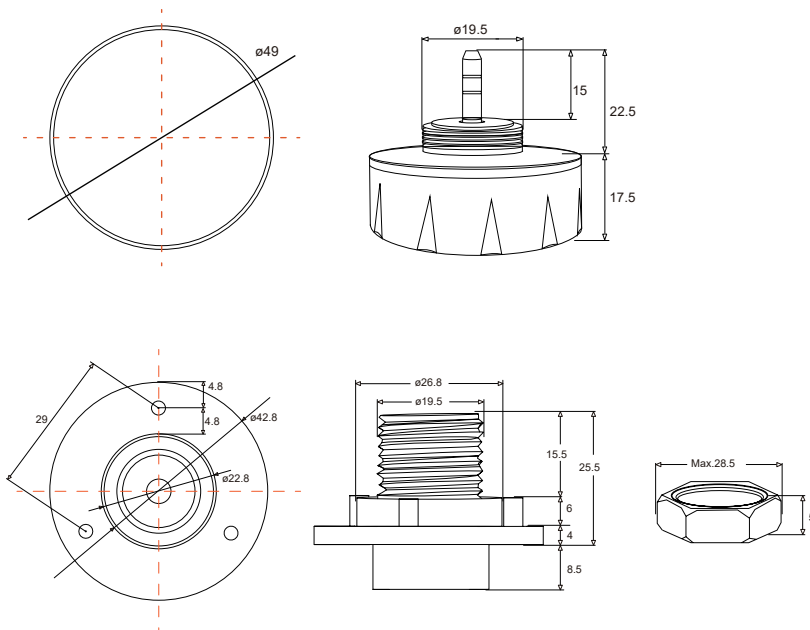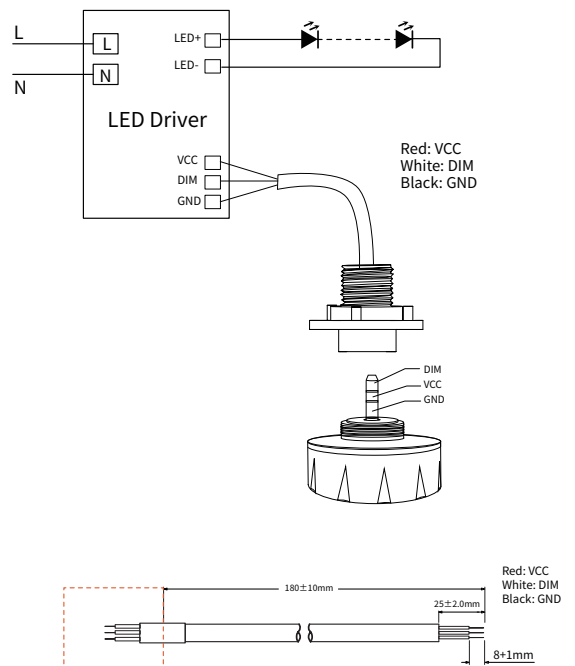
Detection coverage

Sensitivity :   25%   50%   75%   100%

Ceiling Mounted

Wall Mounted
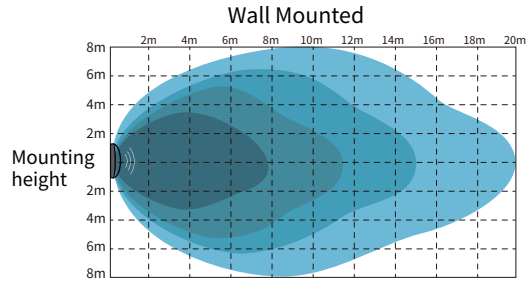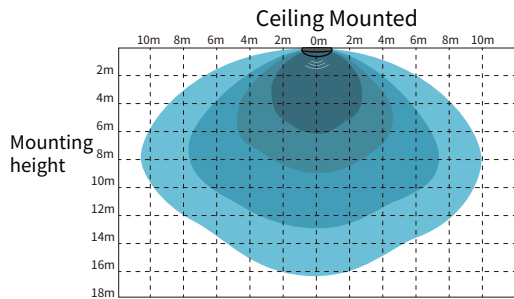
Daylight Priority

MS033C was build in with daylight sensor it can tell the difference between natural light and artificial LED light, the sensor will turn on your light fixtures when the ambient light is lower than the setting lux value even there is no any motion was detected. When the ambient light is higher than the setting lux value, the sensor will switch off the light fixtures even there is still motion.
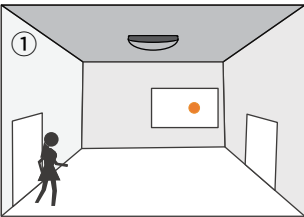
Note：Lux-Off sampling time--10s；
Lux-Off sampling time--10s；
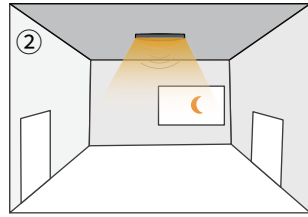Lux-On function takes effect only when standby dimming period set at +∞.

light off automatically
Sampling time
Lux off
Lux on
Sampling time
light on automatically
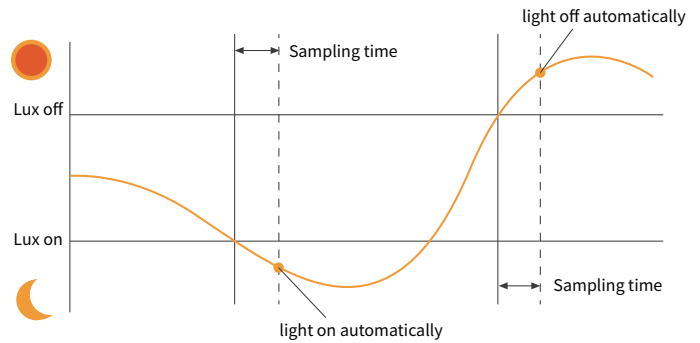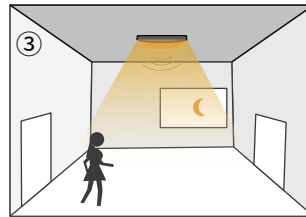
Application

1. Daylight priority：

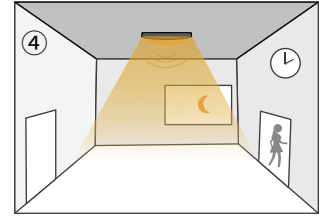Lux-On function takes effect only when stand-by dimming period set at +∞.

① With sufficient daylight, even when motion was detected, light remains OFF.
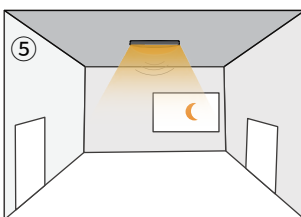
② Light automatically turn on and dim to the stand-by dimming level when ambient brightness is lower than preset lux level.
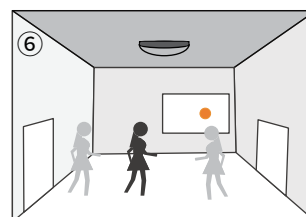
③ With insufficient ambient brightness, light dims to 100% when motion was detected .

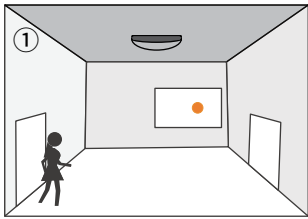④ Light keeps on 100% within the holdtime.

⑤ Light dims to standby dimming level if no motion was detected after the holdtime.

⑥ Light turn off when ambient lux level is higher than preset lux amount even there is still motion.
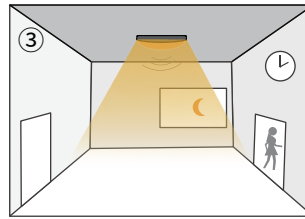
2. ON/OFF function:

1.) The daylight threshold is set to "5Lux/15Lux/50Lux/100Lux/300Lux, Stand-by period is set to "0s".

①
With sufficient daylight, even when motion was detected, light remains OFF.

②
With insufficient ambient brightness, light dims to 100% when motion was detected .

③
Light keeps on 100% within the holdtime.
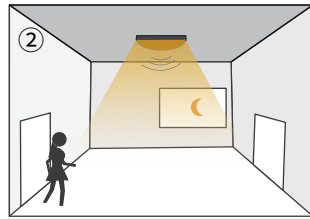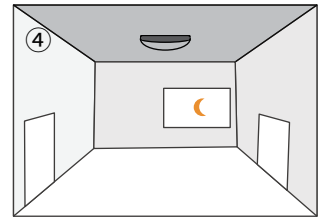
④
After the last detection and the preset hold time elapsed, light OFF.

2.) The daylight threshold is set to "Disable". Light on when detect movement, After people leave, Light off after Hold time.

①
When motion is detected, the sensor will switch on the light to 100% brighteness.

②
After people leave the detection area, light remains 100% brightness within hold time.

③
After the last detection and the present hold time elapsed, light OFF.

3. Dimmable control/Corridor function:

The daylight threshold is set to "5Lux/15Lux/50Lux/100Lux/300Lux, stand-by period is set to "5s/30s/3min/5min/15min/45min".
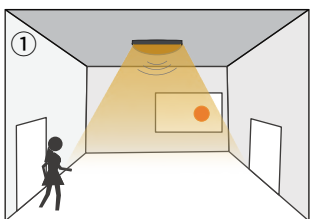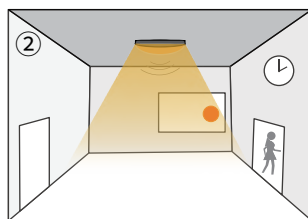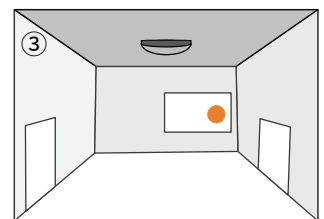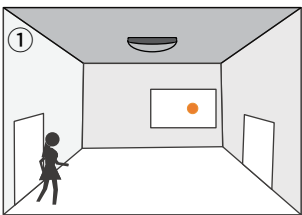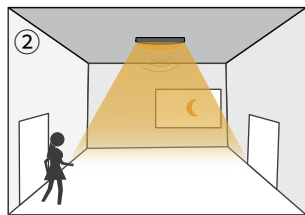

①
With sufficient daylight, even when motion detected, light remains OFF.

②
With insufficient ambient brightness, light dims to 100% when motion was detected .

③
Light keeps on 100% within the holdtime.
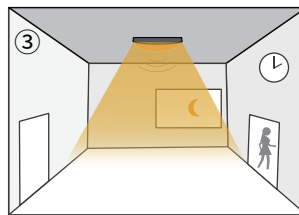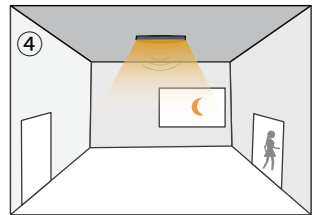
④
Light dims to standby level if no motion detected after holdtime.
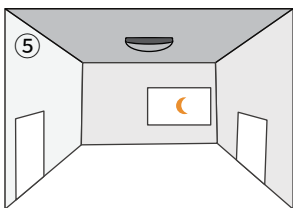
⑤
After the stand-by period, light OFF.

≫ Installation precautions

» Wiring must be strictly in accordance with the wiring diagram to avoid short circuit.
» The detected surface cannot be shielded by metal objects.
» Microwave sensor can be installed in any lamp except the one with full metal shell.
» Should be kept away from the driver to avoid interference generation and lamp flashing.
» Shall not be installed next to large operating machines such as ventilator/ceiling fan to avoid false triggering caused by machine vibration.
» Suitable for indoor installation to avoid false triggering due to external factors such as rain, wind or tree swing.

MR003 Programable one key commission remote controller

| Key		Function
ON/OFF		Setting the light permanent ON or OFF without motion mode
Auto		Switch to sensor mode and restore the latest sensor setting
Reset		Turn the sensor in a default setting (3s hold time, 0s stand-by period, lux disable, 100% sensitivity).
Power (80%/100%)		Quick setting the power output in 80% or 100%
Brightness (+/-)		Long press this button to set the power from 20% to 100%，available in permanent ON mode or in sensor mode.
Start	Program Mode	1. Press Start to program mode，then select the ①Sensitivity② Holdtime③Standby dimming level④Standby period⑤Daylight threshold to setting
Memory	Save Setting	2. Press Memory to save the parameters ①-⑤ had selected in step 1 3. Press Apply to transmit the ①-⑤ parameters to the target sensor Remark：After press Start，you need to press any of ①-⑤parameter
Apply	One Key Apply	button within 30S, the time window between press any button is 30S , it will quit program mode if no any button is pressed within 30S.
Sensitivity		In this area, movement will be detected and able to trigger the sensor. 100% detection area is also known as the strongest sensitvity.
Hold time		The period of light keeping 100% brightness after moving objects leave the detection area.
Stand-by dimming level		The dimming level in the standby period.
Stand-by period		The period of light keeping low output before it's completely switched off. When it's preset as"+∞", the light always keep at low output if no movement in the detection area and doesn't turn off.
Daylight threshold		Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work; when it's preset as "disable", the sensor will detects motion regardless the ambient brightness.

Remote Setting Tips: When press any button, if the light is flickering one time, means the setting is successful.

Size (L*W*H): 116.5*55*13mm

7 battery is recommended

Front　　　　Back　　　　Side

116.5mm

55mm

13mm
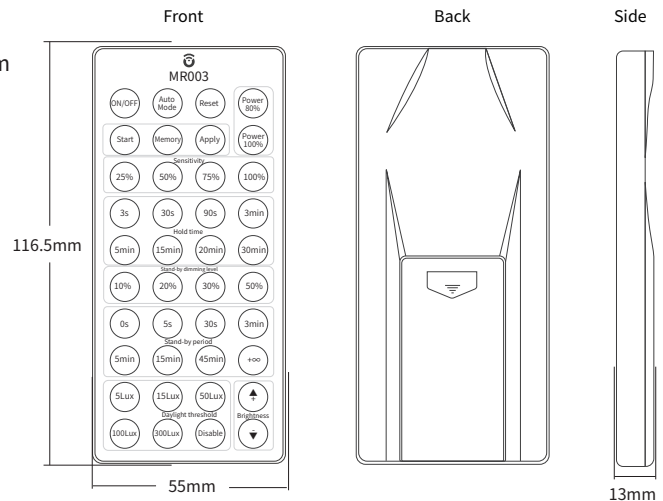
FCC Warning

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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular

installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. such modifications could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm between the radiator and your body, and fully supported by the operating and installation