

OCP-2828ZW_DC



Operation and Specifications

This product is a ceiling mount presence motion sensor with Suren's patented HDIR technology and proprietary multi-segment lens array. Mounted at a height of 2.4m, This sensor provides 6m by 12m diameter detection for minor motion.

This product with LUX sensor makes the home automation system more powerful and more intelligent.

This product becomes operational 30 seconds after power up. Press the pairing switch S1 3 times within 1.5 seconds, the LED with blink red.



Figure 1

Specification:

Operating Voltage	12-24VDC
Standby Current	$\cong 20$ mA
Chip	Z-Wave 700
Mount Height	2.4m
Detection range	6*12m Diameter, 360° field of view
RF frequency	921.4MHz
Transmission range	>50m
Lens	Fresnel Lens
Housing Material	High Impact ABS
Dimension	$\Phi 80*42$ mm,
Lux sensor	Sensitivity variation $\pm 15\%$
Operating Temp	-10°C to +50°C
Humidity	10%-75% RH, Non-condensing

LED Indicator

- LED flashes upon power up.
- LED flash once when motion is detected.

(Setting the Parameter 15 to "1")

Wiring Diagram:

Red: 12 ~24VDC , Input

Black: GND

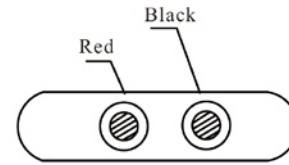
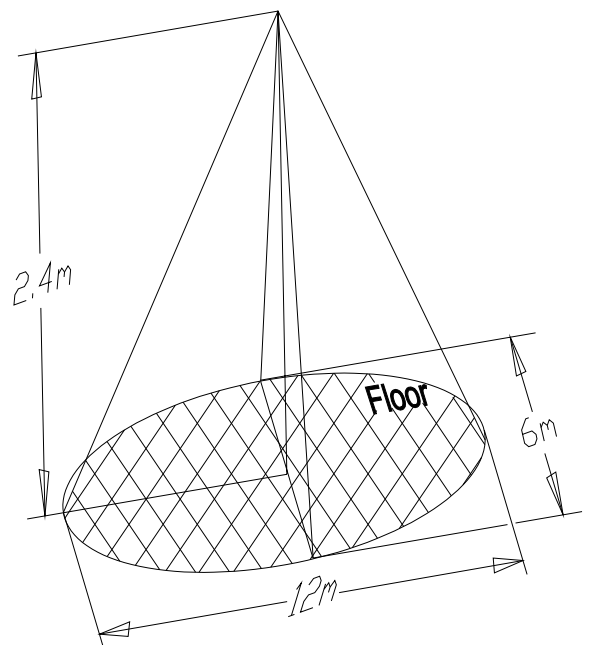
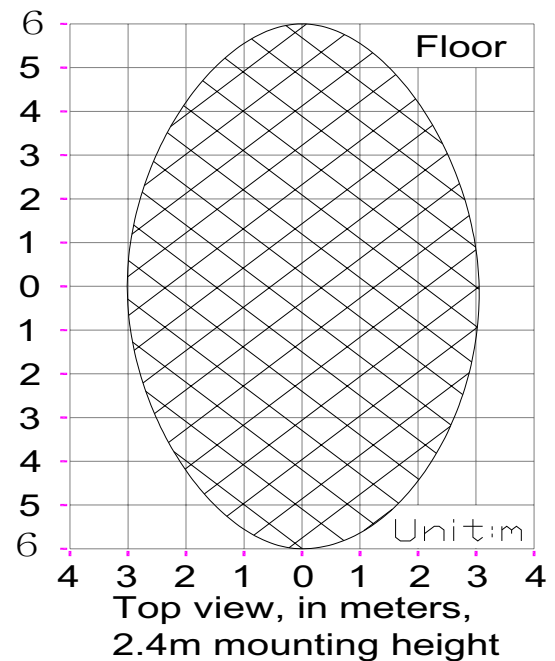


Figure 2

Detection Area:



Installation Process

1. Select the installation Location , to drill a 64mm circular hole to the drop ceiling panel. Press the retaining springs together, then push the spring and the sensor through the hole until the sensor seated against the panel.

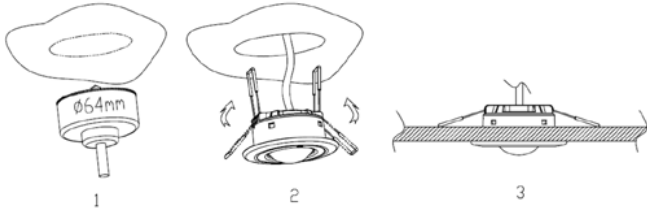


Figure 5

Installation the lens shield

Insert the screwdriver into the notch of the lens cover to open the lens cover and remove the lens.

Place the lens shield into the slot, and put the lens into the slot, then close the lens cover.

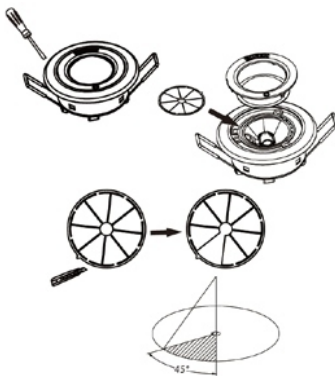


Figure 6

Usage of lens shield

Lens mask can be used to block off areas that do not want detection coverage.

There are 8 sections on the mask which can be break off individually, each section covers 45 degree view.

Learn Mode(Z-Wave)

The product must support a Learn mode in which the device can be Z-Wave configured (include, exclude, wake up, reset.). Device enters Learn mode when Pairing switch1 is short-pressed 3 times within 1.5 seconds.

Device exits Learn mode after a time out of 30 seconds.

Device transmits its Node information Frame when entering Learn mode enabling to be Included/Excluded from Network.

Local Reset (Z-Wave)

This Product supports local manual reset to factory default. Factory Reset is performed by:

1. Press-and-hold Switch 1 for 5 seconds
2. LED indicator illuminates red for 1 seconds
3. Release Switch 1
4. Press Switch 1 for 5 seconds
5. LED blinks red 5 times
6. Release Switch 1 when LED stops blink

Parameter (Z-Wave)

Parameter 1	Motion Detection function	Motion detection function Enabled/Disabled Size: 1 byte, Default Value: 1 0-Disable, 1-Motion ON based on Lux, 2-Motion ON independent
Parameter 2	Motion sensor sensitivity	Motion sensor sensitivity setting Default Value 1: 0-low 1- high sensitivity
Parameter 3	Time delay of motion Off report Size: 2 byte, default Value: 60 Setting: 1-3600	This parameter can determine how long the associated devices should stay ON status. For instance, this parameter is set to 30s, PIR sensor will send a BASIC SET Command to an associated device with value basic set level id PIR sensor is triggered, and the associated device will be turned on, and stay in this status for 30s before it is turned off automatically
Parameter 4	Command Frame to 2nd Association Setting: 0,1,2	Commands sent to 2nd Association Group Command frames sent to devices added to the 2nd association group. 0 - On 1 - OFF 2 - On & OFF
Parameter 5	Value of On Command Size: 1 Byte Setting: 0,255 Default Value:255	Value of ON command frame sent to 2nd Association Group The value of 0 turns OFF the device, 255 turns it On. In case of associating the Dimmer or Roller Shutter module, values 1-99 allow to set an Associated device to a specified level. 0-99 or 255
Parameter 6	Value of Off Command Size: 1 Byte Setting: 0,255 Default Value:255	Value of OFF command frame sent to 2nd Association Group. The value of 0 turns OFF the device, 255 turns it On. In case of associating the Dimmer or Roller Shutter module, values 1-99 allow to set an Associated device to a specified level. 0-99 or 255
Parameter 7	Ambient Light measurement Setting: 0,1 Enabled 1 Disabled 0	Ambient light lux level measurement default value: 1
Parameter 8	Illumination motion activation size: 2 byte, Default: 200	Ambient illumination Motion activation (if the ambient illumination level falls below this value, sensor will send commands and report to gateway). Motion sensor reports will be always sent In Lux.
Parameter 9	Illumination delta size: 2 bytes disabled:0 Setting:0-1000	Minimum change of illumination for report to controller. if the ambient illumination level falls below this value, sensor will not send commands and report to gateway, The delay time of sending the report is 5s, therefore if the lux level difference is 200 in 5s, report will send to gateway default value: 200.
Parameter 10	Temperature delta size:1 byte Setting: 0-50	Minimum change of temperature for report to controller. This Parameter defines how much Lux must be changed first, report to gateway (0 - disabled). In 0.1C Default Value: 20
Parameter 11	Humidity delta size:1 byte Default:5 Setting: 0-20	Minimum change of humidity for report to controller. This Parameter defines how much Humidity must be changed first, report to gateway (0 - disabled).
Parameter 12 (Lux polling interval)	Sensor reports interval size: 2 bytes Setting:0-36000	Time interval between consecutive illumination, temperature and humidity with the controller Default Value: 3600
Parameter 13 (Lux Calib)	Illumination Sensor calib size: 2 bytes Setting:0-1000	Reported = Measured * 1000 / Calibration Default Value: 500
Parameter 14	Motion Detection LED control Default Value:0	0-disable 1-enable

Association Group(Z-Wave)

Supports 4 association groups; each group support maximum 4 association nodes, this has the effect that when PIR sensor is triggered, all devices associated with it will receive relevant reports through association, sensor can control another Z-Wave network device

1. Group1 LifeLine: Lifeline service that assigned to sensor status - Detect/Clear. It enables sensor to send reports and readings to Z-Wave Gateway whenever the sensor is triggered.

2. Group2 Control: allows sending control commands to associated devices such as relay modules, lighting, etc. This association group is configured through the advanced parameters :

On/Off duration, This parameter can determine how long the associated devices should stay ON status, sensor will send a BASIC SET command to an associated device with value basic set level if sensor is triggered, and the associated devices will be turned on, and stay in this status for 30seconds (default value in Configuration 3 is 30, value can be changed).

3. Group3 Notification: allows sending Notification to associated devices in this group. This Group support: NOTIFICATION_REPORT_V4.

4. Group4 Binary: allows Sending Sensor Binary Report to associated devices in this group. This Group support: SENSOR_BINARY_REPORT_V2.

S2 Security(Z-Wave)

Product must support both FUNC_ID_ZW_SEND_DATA FUNC_ID_ZW_SEND_DATA_EX commands. Normally S2 security inclusion and commands are handled by the Host Application, but the Product must provide all the required Serial SPI capabilities for it.

Node Information Frame(Z-Wave)

The node information frame is the “business card” of a Z -Wave device. It contains information about the device type and its technical features. the add and remove procedure of the device is confirmed by sending out a node information frame. Besides this, it may be necessary for certain network operation to send out a node information frame.

Device/Command Classes(Z-Wave)

The product must have the following Device and Command Classes implemented.

- Role Type:
- Z-Wave+ Device Type:
- Basic Device Class:
- Generic Device Class:
- Specific Device Class:

Supported Command Classes(Z-Wave):

- 1) Basic
- 2) Sensor binary
- 3) Sensor Multilevel
- 4) Association Group info
- 5) Device Reset Locally
- 6)Z-Wave Plus info
- 7) Configuration
- 8)Manufacturer Specific
- 9)Battery
- 10)Wake up
- 11)Association
- 12)Version

OFCA:

Certification No: HK003 22 0036