

Life Being Sensor

DALI Control

PRODUCT DESCRIPTION

- Adopt Qurus patented Life being detected technology, which can detect movement, slight motion and breathing signal.
- Built-in daylight harvesting technology to achieve accurate constant light.
- Built-in DALI interface, which can work with DALI1.0 & DALI2.0 drivers.
- With PUSH port, can manual ON-OFF and dimming.
- Support multiple access, multi-point acquisition of sensor data, transmitting the data via broadcast mode grouping work.
- 2 years warranty.

Item Number: **QRSR-HF-DD-RD**



INPUT

Operating voltage	108-305VAC 50/60Hz
Rated voltage	120V-277VAC 50/60Hz
Stand-by power	<1W

DIM INTERFACE

DALI interface	DA+ DA- (Max. Lead length:300M; Max. Output current: 200mA)
PUSH interface	Manual ON-OFF & dimming (set the Max. brightness)
Interface terminal connection	Press terminal

SENSOR PARAMETERS

Operating frequency	5.8 GHz ±75 MHz, ISM band.
Work mode	Master/Slave networking – one master controls multiple slave sensors
Transmitting power	0.5mW Max.
Hold time	5S/30S/1min/3min/5min/10min (Remote control: 5S/30S/1min/3min/5min/10min/20min/30min)
Stand-by dim Level	10%/20%/30%/50% (Remote control: 10%/20%/30%/50%)
Stand-by period	0s/1min/3min/10min/30min/+ (Remote control: 0s/10S/1min/3min/5min/10min/30min/+)
Detection Area	100%/50% (Remote control: 100%/75%/50%/25%)
Daylight Sensor	5lux/15Lux/30Lux/50Lux/100lux/Disable (Remote control: 5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable)
Detection range (radius)	Movement: 3-4m (Speed: 0.3m/s) Slight motion: 3-4m Breathing: 2-3m
Mounting height	Recommend 2.5-4m
Detecting Angle	150°(wall mount), 360°(ceiling mount)

OPERATING ENVIRONMENT

Operating Temperature	-25°C...+50°C/Humidity: 85% (Non condensing)
Storage Temperature/humidity	-40°C...+80°C /Humidity: 85% (Non condensing)

CERTIFICATE STANDARDS

LVD standards	EN61058-1, EN61058-1-2
EMC standards	EN55015, EN61547, EN61000-3-2, EN61000-3-3
Environmental Requirement	Compliant to RoHS
Certificate	CE

OTHERS

Wiring	"L N ground" port diameter: 0.75-1.5 mm2, "DALI2" port diameter: 0.75-1.0mm2
IP Rating	IP20
Protection Class	Class II
Installation	Flush mounted
Cut size	Ø70-Ø80mm
Net Weight	65g±5g
Warranty	2 years warranty.

FUNCTION:

Instructions of signal detection: the sensor detects human walking, slight motion (such as body movement, turn up head and others minor movements) and breathing to realize the detection of human existence in non-sleep state.



Movement signal active



Slight motion & Breathing signal maintain

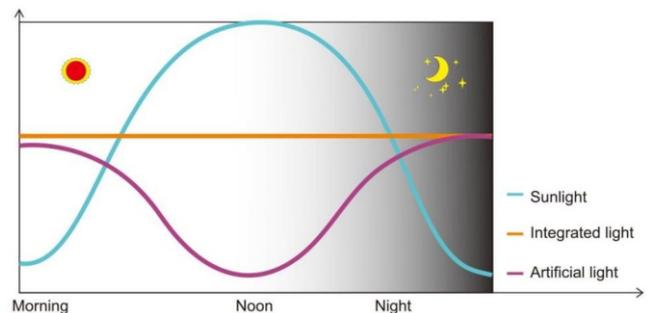


- Movement signal: Big movement for sensor triggering.
- Slight motion signal: very small movement even only body motion can be collected, the indicator flashes once.
- Breathing signal: when no slight motion signal, only breathing signal can be collected, the indicator flashes for 3 times by detecting 3 effective breathing signals.

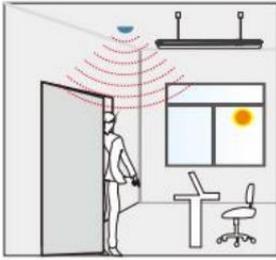
DAYLIGHT HARVESTING:

Built-in daylight harvesting sensor, according to the target lux level, automatic detect the natural light level to adjust artificial light level automatically, realizing the natural light and artificial light complementary, maintaining the target lux level.

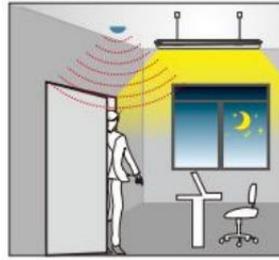
It can be used in offices, airports, shopping malls and other places where need keep constant lux level.



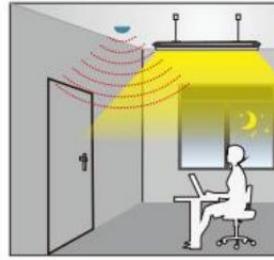
1. ON-OFF FUNCTION (STAND-BY PERIOD: 0S, WITHOUT DH)



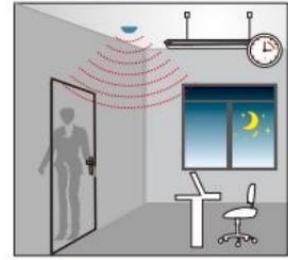
1 When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.



2 When the ambient light is insufficient, a moving signal is detected and the light will turn on automatically.

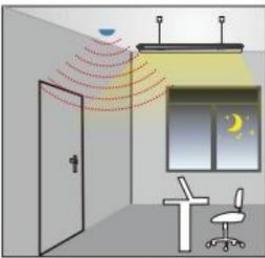


3 The body, head and other small movements in normal work can be detected, and the light is always on.

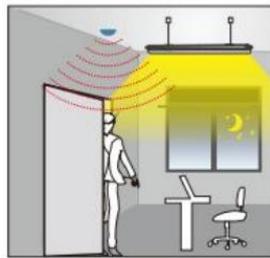


4 When the sensor fails to detect movement and inching signal, the light will automatically turn off after the delay time.

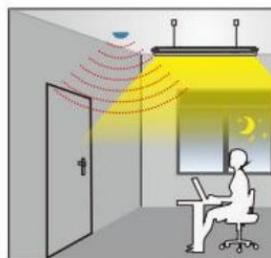
2. 2 STEPS DIMMING FUNCTION (STAND-BY PERIOD: +, WITHOUT DH)



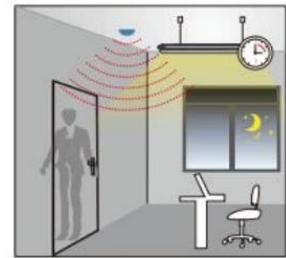
1 When the sensor does not detect the movement signal, the light remains low bright.



2 When the moving signal is detected, the light will turn on automatically.

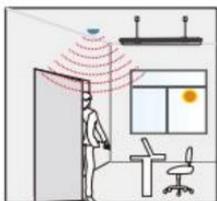


3 The body, head and other small movements in normal work can be detected, and the light is always on.

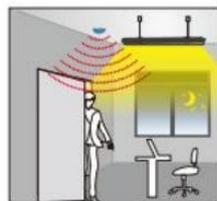


4 When the sensor does not detect movement and inching signal, the light will automatically turn on low after the delay time.

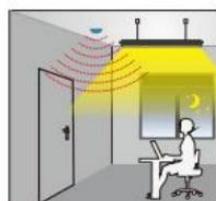
3. 3 STEPS DIMMING FUNCTION (STAND-BY PERIOD: 1MIN/3MIN/10MIN/30MIN", WITHOUT DH)



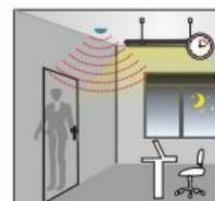
1 When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.



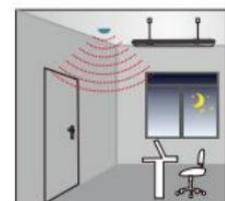
2 When the ambient light is insufficient, a moving signal is detected and the light will turn on automatically.



3 The body, head and other small movements in normal work can be detected, and the light is always on.

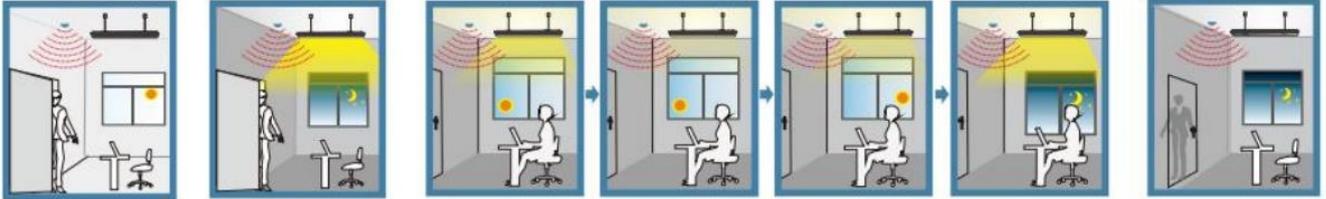


4 When the sensor does not detect movement and inching signal, the light will automatically turn on low after the delay time.



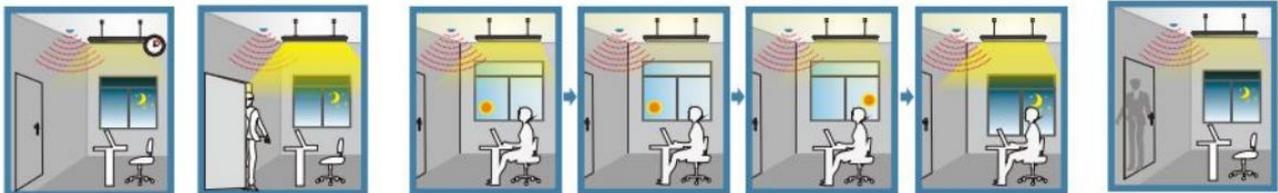
5 After the waiting time, there is still no moving signal detected, and the light will automatically turn off.

4. ON/OFF FUNCTION (WITH DH, STAND-BY: 0S)



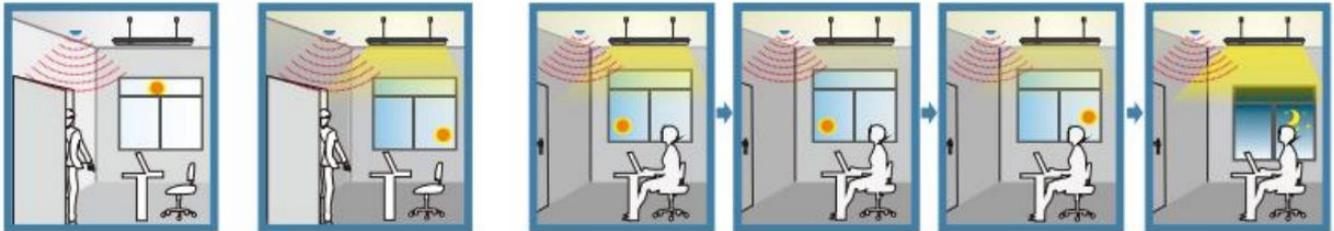
- 1 When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.
- 2 When the ambient light is insufficient, a moving signal is detected and the light will turn on automatically.
- 3 The body, head and other small movements in the work can be detected, and the luminescence ratio of the lamp itself can be adjusted according to the strength of the ambient light to maintain a constant desktop illumination.
- 4 When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.

5. 2 STEPS DIMMING FUNCTION (WITH DH, STAND-BY PERIOD: +)



- 1 When the moving signal is detected, the light will turn on automatically.
- 2 When the sensor does not detect the movement signal, the light remains low and bright.
- 3 The body, head and other small movements in the work can be detected, and the luminescence ratio of the lamp itself can be adjusted according to the strength of the ambient light to maintain a constant desktop illumination.
- 4 When the sensor does not detect any movement signal, the light will automatically turn on low after the delay time.

6. 3 STEPS DIMMING FUNCTION (WITH DH, STAND-BY PERIOD: 1MIN/3MIN/10MIN/30MIN)

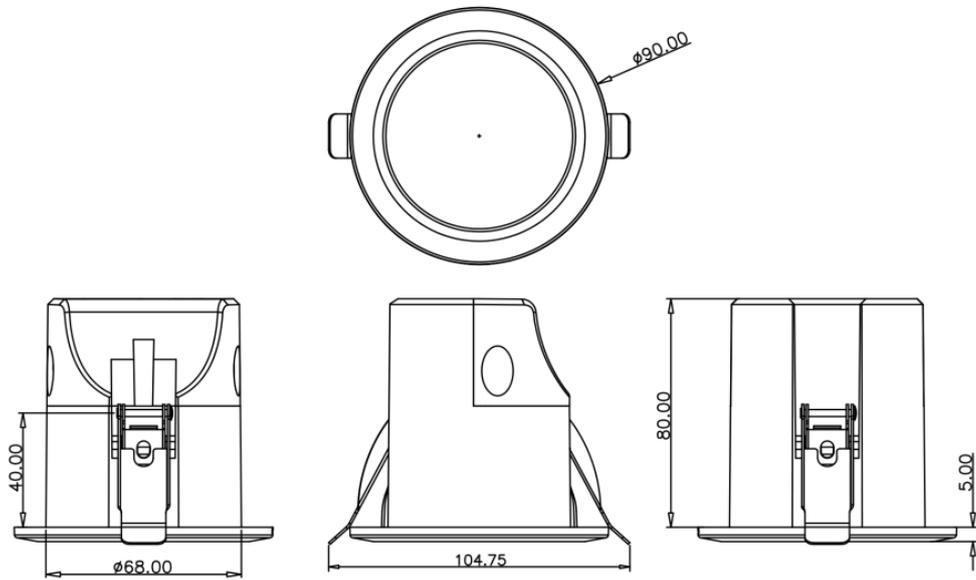


- 1 When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.
- 2 When the ambient light is insufficient, a moving signal is detected and the light will turn on automatically.
- 3 The body, head and other small movements in the work can be detected, and the luminescence ratio of the lamp itself can be adjusted according to the strength of the ambient light to maintain a constant desktop illumination.

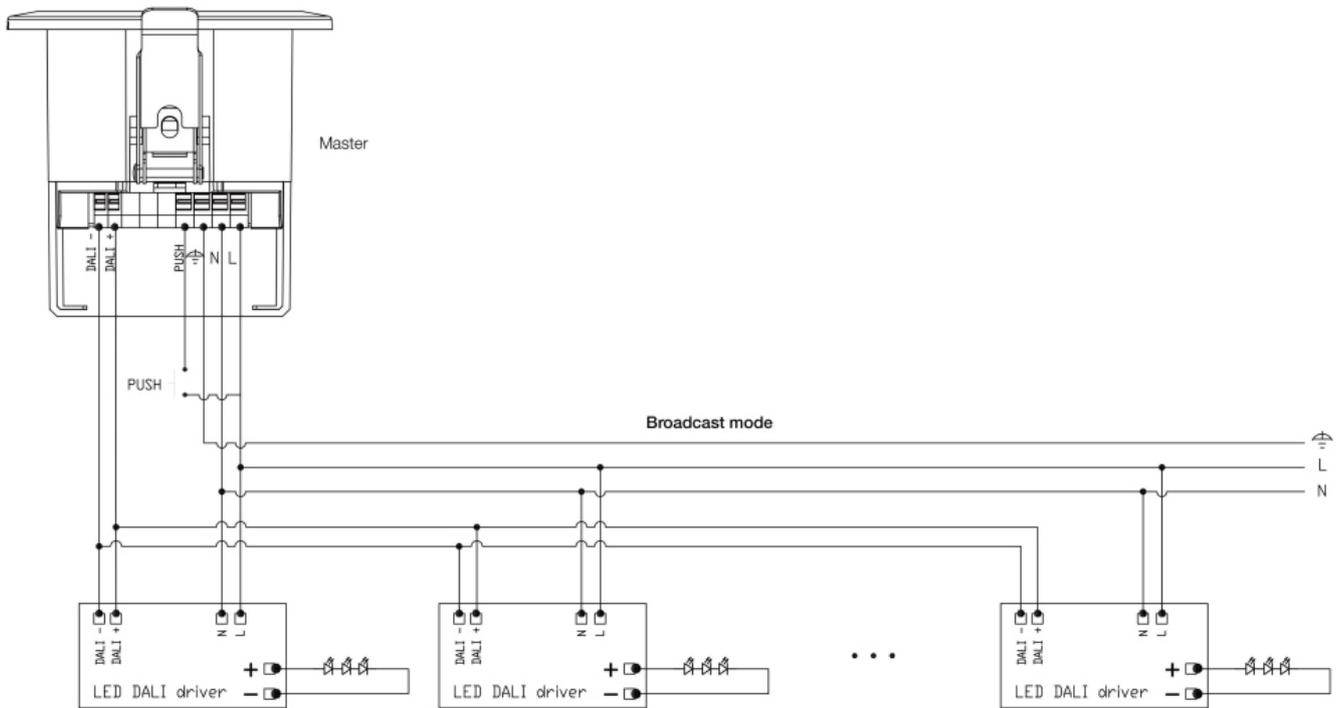


- 4 When the sensor does not detect any movement or micro-movement signal, the light will automatically turn on low after the delay.
- 5 After the waiting time, there is still no moving signal detected, and the light will automatically turn off.

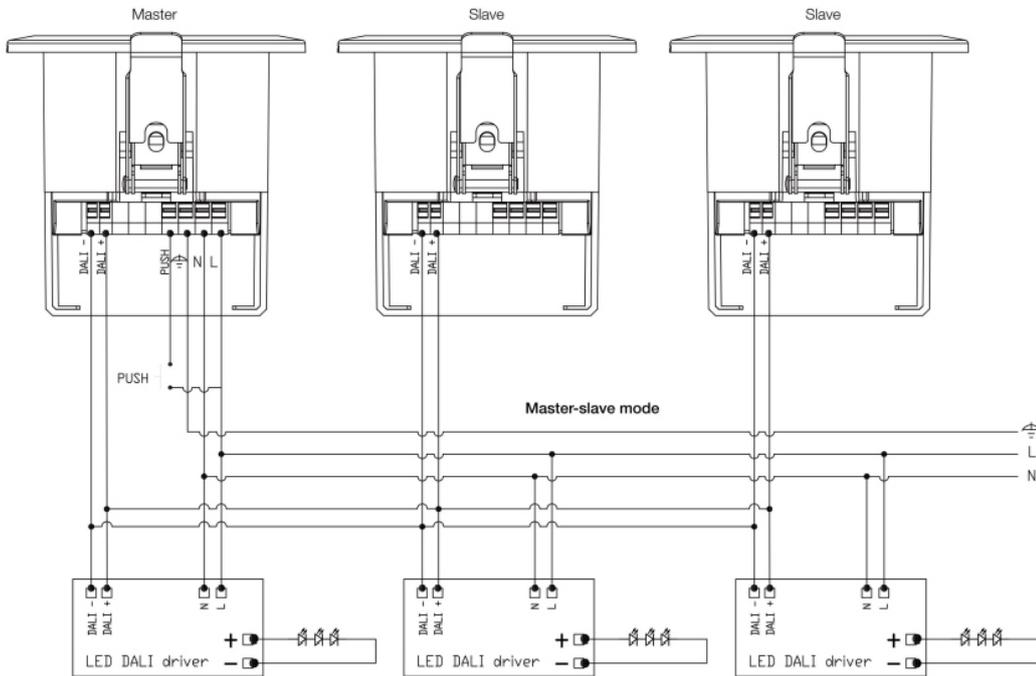
DIMENSION



WIRING (BROADCAST MODE)



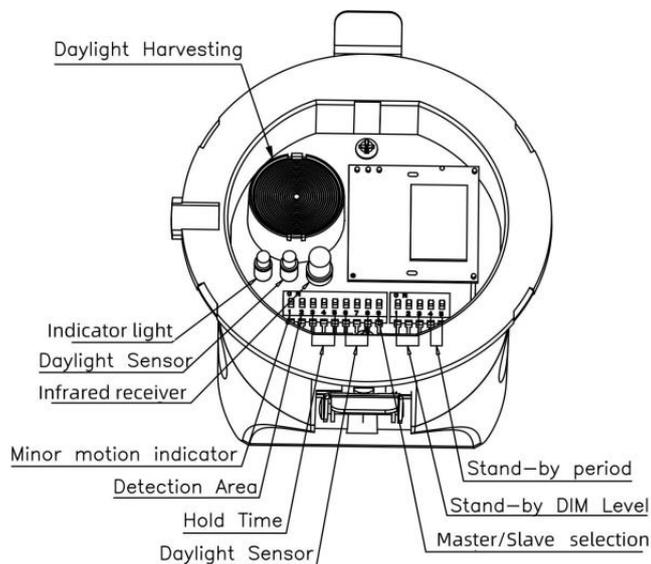
WIRING (MASTER SLAVE MODE)



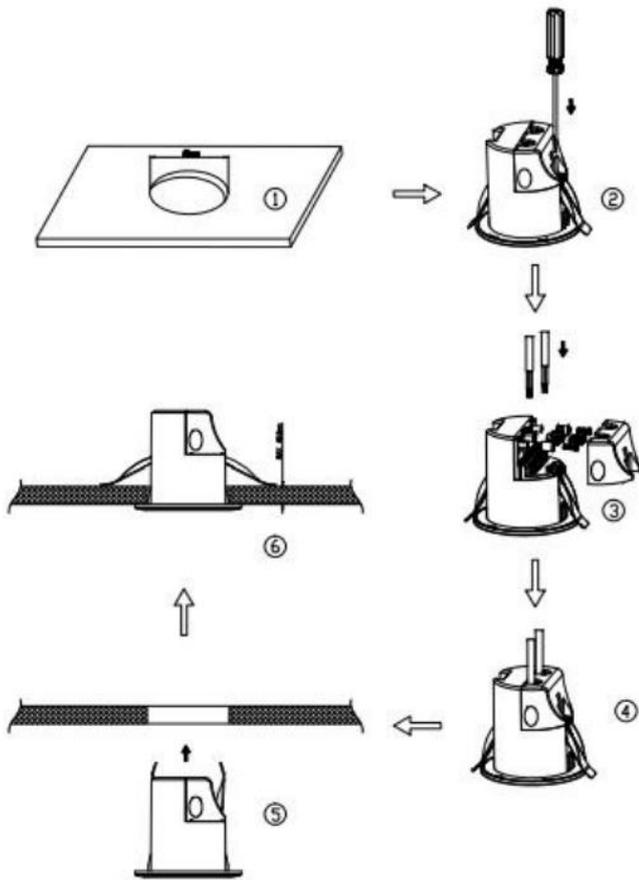
NOTE:

1. When multiple sensors are connected, only one sensor can be the master, others should be slaves. Under Broadcast mode or master-slave mode, one sensor must be the master.
2. When working normally, the hold time depend on the setting of the last triggered sensor.
3. It's recommended to connect 64pcs DALI drivers when one sensor is connected; 40pcs DALI drivers when 2 sensors; 30pcs DALI drivers when 3ps sensors; 20pcs DALI drivers when 4pcs sensors. Up to 4pcs DALI sensors can be connected to one DALI bus.

STRUCTURE

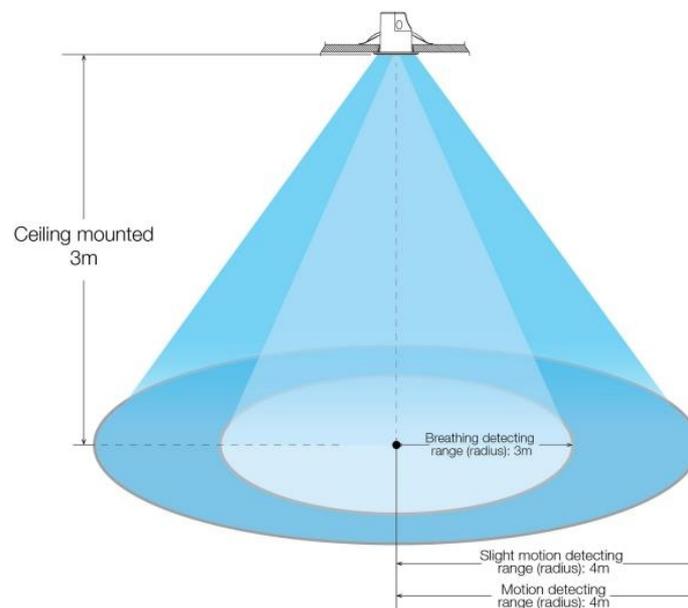


INSTALLATION INSTRUCTION



1. Cut a hole 70-80mm on the ceiling
2. Carefully open the side cover and expose the screws and clamp
3. Wiring (note that input and output cannot be connected backward)
4. Install the clamp screw and cover the side cover
5. Bend the spring clamp backward to push the pre-opened hole in the ceiling
6. Ensure smooth and reliable installation.

DETECTION PATTERN



DIP SWITCH SETTING

INDICATOR LIGHT

	1	
I	On	Open
II	-	Close

DETECTION AREA

	2	
I	On	100%
II	-	50%

HOLD TIME

	3	4	5	
I	On	On	On	5S
II	-	On	On	30S
III	On	-	On	1Min
IV	-	-	On	3Min
V	On	On	-	5Min
VI	-	-	-	10Min

NOTE: It's necessary to set the hold time 1min+ to realize breathing.

DAYLIGHT SENSOR

	6	7	8	
I	On	On	On	5Lux
II	-	On	On	15Lux
III	On	-	On	30Lux
IV	-	-	On	50Lux
V	On	On	-	100Lux
VI	-	-	-	Disable

*If daylight sensor is disable, the light will be on when movement is detected even if the lux level is enough or not.

MODE SELECTION

	9	
I	On	Master
II	-	Slave

STAND BY PERIOD

	1	2	3	
I	On	On	On	0S
II	-	On	On	1Min
III	On	-	On	3Min
IV	-	-	On	10Min
V	On	On	-	30Min
VI	-	-	-	+

- The sensor works as ON-OFF function when stand-by period is 0s.
- The sensor works as 2-step dimming function when stand

STAND BY DIM LEVEL

	4	5	Brightness	
I	On	On	10%	DALI driver is set as linear curve
II	-	On	20%	
III	On	-	30%	
IV	-	-	50%	

Initialization

Indicator light: On Detection Area: 100% Hold Time: 1min Daylight Sensor: Disable Stand-by Period: 0S Stand-by DIM Level: 10% Mode: Master

Push Setting

Short press PUSH can control the output on/off to achieve ON-OFF function, long press PUSH can dim the light level

Application Notice

- 1) The sensor should be installed by a professional electrician. Please disconnect the power before installing, wiring or changing the setting of the DIP switch.
- 2) Put the sensor as far as possible from large areas of metal plate, glass and other materials with high medium density to avoid triggering by mistake.
- 3) Avoid using objects that have been vibrating for a long time around the sensor, such as shaking fans, etc. The vibration signal will be regarded as the motion signal to trigger the sensor.
- 4) Avoid the detection window of the daylight sensor of the detector irradiated by an invalid light source, which will interfere with the measurement of ambient light.
- 5) Avoid the detection window of the daylight sensor of the detector irradiated by an invalid light source, which will interfere with the measurement of The microwave sensor has a certain penetrating ability to the wall of the building, and the microwave penetrating to the outside of the wall may cause false alarm when it ACTS on the moving objects outside the fortified area. In order to avoid triggering by mistake, the installation position and appropriate induction range should be selected during installation.
- 6) The data on detection pattern is typical value tested in factory, the detection range could be affected by moving speed, installation height, motion object and different environment