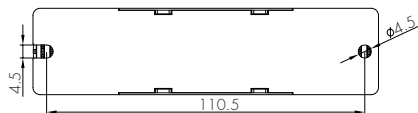
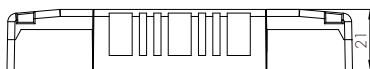
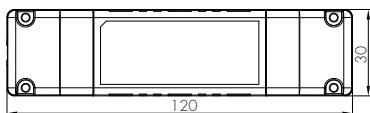
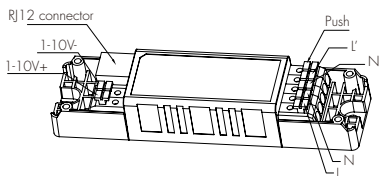


# INSTRUCTION MANUAL FOR RF COMMUNICATION MICROWAVE MOTION SENSOR

## Model No.:HC438V & SAM8

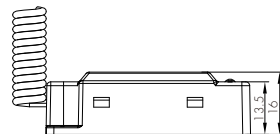
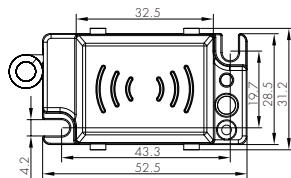
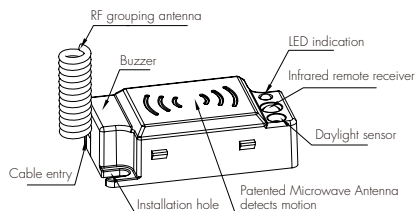
**Mainbody, Model:HC438V**



unit: mm



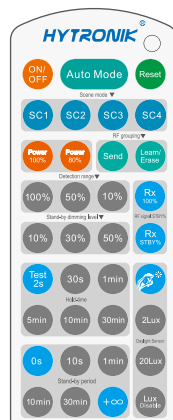
### Detached Antenna, Model: SAM8



unit: mm

## Technical Specifications

OPERATING VOLTAGE:	120-277VAC
SWITCHED POWER :	120V~1.7A/200VA; 277V~1.5A/400VA (capacitive load)
WARMING-UP TIME:	20s
STAND-BY POWER:	< 1W
DETECTION AREA:	10% /50% /100%
HOLD-TIME:	Test 2s /30s /1min /5min /10min /30min
STAND-BY PERIOD:	0s/10s/1min/10min/30min/ +∞
STAND-BY DIMMING LEVEL:	10%/30%/50%
DAYLIGHT THRESHOLD:	2Lux /20Lux, disablel, real-time sampling
MICROWAVE FREQUENCY:	5.8GHz±75MHz
MICROWAVE POWER:	<0.2mW
DETECTION RANGE:	Max. (DxH ): 12m x 6m
DETECTION ANGLE:	30~150°
RF TRANSMISSION DISTANCE:	30 meters indoor, 50 meters in the open area
MOUNTING HEIGHT:	Max. 6m
OPERATING TEMPERATURE:	-35°C ~ +70°C
RF FREQUENCY:	915MHz (FSK mode)

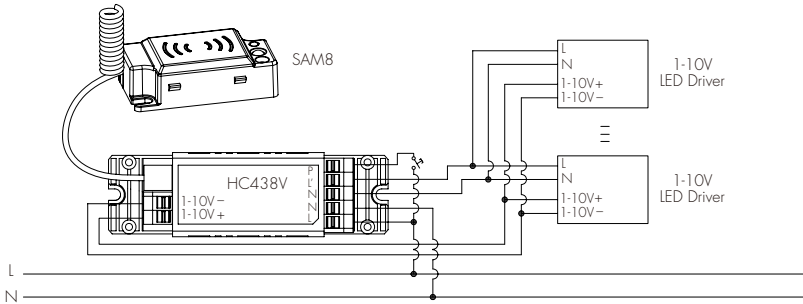


HRC-04

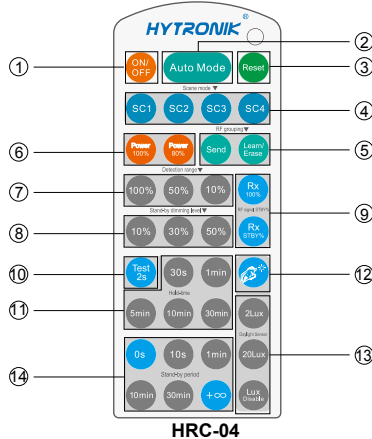
## SECTION 1 INSTALLATION AND WIRING

1.1 Ensure that the electricity supply is switched off before installing or servicing this product.

### 1.2 Wiring diagram



## SECTION 2 REMOTE CONTROL



### HRC-04

Note: the buzzer beeps one time when RC receives signal successfully.

#### Permanent ON/OFF [button ①]

1. Press button ①, the light goes to permanent on or permanent off mode, sensor is disabled.
2. Press buttons ②, ③, ④ or ⑫ to quit from this mode.

#### Sensor mode [button ②]

Press button ②, the sensor starts to work and all settings remain the same as the latest status before the light was switched on/off.

#### Reset function [button ③]

Press button ③, all settings go back to default settings:

Detection range: 100%; Hold-time: 1min; Stand-by period: 5min;  
Stand-by dimming level: 20%; Daylight sensor: Lux disable; Rx STBY%

#### Power output [Zone ⑥]

Press buttons in zone ⑥ to select full Output level. 80% button allows for energy savings and reverse dimming to compensate for LED lumen depreciation over time. Supports fluorescent 10,000hr initial burn-in.

#### Brightness on RF signal (Corridor Function) [zone ⑨]

Press buttons in zone ⑨ to determine the full ON level for all grouped fixtures receiving RF signal after motion is detected by one transceiver in group. "Rx STBY%" button activates the receiving group to turn ON at programmed stand-by level, instead of the full ON with "Rx 100%" button.

#### Test mode [button ⑩]

The button ⑩ is for testing purpose only. The sensor goes to test mode (hold-time is 2s) automatically after commissioning, meanwhile the stand-by period and daylight sensor are disabled.

This mode can be ended by pressing ③, or any button of ④ and ⑪.

#### Ambient daylight threshold[button ②]

Press button ②, the latest surrounding lux value overwrites previous lux value learned, and is set as the daylight threshold.

#### Detection range [zone ⑦]

Press buttons in zone ⑦ to set detection range at 10% / 50% / 100%.

#### Hold time [zone ⑧]

Press buttons in zone ⑧ to set hold time at 2s / 30s / 1min / 5min / 10min / 30min.

#### Stand-by period (Corridor Function) [zone ⑨]

Press buttons in zone ⑨ to set stand-by period at 0s / 10s / 1min / 10min / 30min / +∞.

Note: "0s" means on/off control; "+∞" means bi-level dimming control, light never switches off when daylight sensor is disabled.

#### Stand-by dimming level [zone ⑩]

Press buttons in zone ⑩ to set the stand-by dimming level at 10% / 30% / 50%.

#### Daylight sensor [zone ⑬]

Press buttons in zone ⑬ to set daylight sensor at 2lux / 20lux / lux disable.

Note:press "lux disable" button to disable the daylight sensor for threshold control. When motion is detected, the fixture will always turn ON, regardless of ambient light level.

#### Scene mode [zone ④]

There are four scene mode fixed programs built-into the remote control:

Scene options	Detection range	Hold time	Stand-by period	Stand-by dimming leve	100% /STBY%	Daylight sensor
SC1	10%	1min	1min	10%	STBY%	Disable
SC2	10%	5min	5min	30%	STBY%	Disable
SC3	50%	10min	30min	30%	STBY%	Disable
SC4	100%	30min	1hour	50%	100%	100Lux

Note:1.end-user can adjust the settings by pressing buttons of detection range⑦ / hold time⑧/ stand-by period⑨ / stand-by dimming level ⑩

/daylight sensor ⑬, the last setting stays in validity.

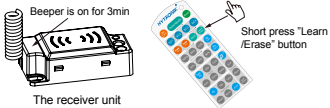
2.press button④on remote reverts to original defaults.

#### RF grouping [zone ⑤]

Step1

Short press "Learn/Erase" button on RC to activate pairing mode, and the receiver unit will beep once every second for 3min.

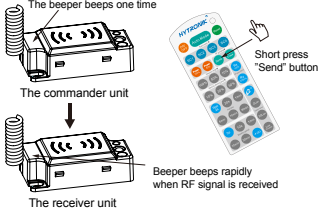
Note: the unit can only pair up to 30 units.



Step2

Short press "Send" button on RC, the commander unit will beep one time to send the transmission signal.

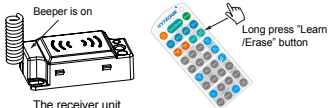
Upon receiving the transmission signal, the receiver unit will rapidly beep 3 times in 1s to indicate the success of pairing. Repeat this step to pair more units. The receiver unit will quit the pairing mode after 3min or press the "Learn/Erase" button again.



Step3

Erase:  
Long press "Learn/Erase" button for 3s, and the receiver unit clears all commands it has received before.

The beeper rapidly beeps for about 5s. This is the indication of a successful reset and previous groupings are all erased.



## SECTION 3 FUNCTION

### 3.1 Daylight Monitoring Function with Threshold Control (add model DS02 photosensor for complete daylight harvesting)

Hytronik intelligent, distributed control enhances energy savings beyond tri-level dimming of ON / DIM / OFF. When stand-by-period is set to continually on (infinity "+∞"), ambient light level is sampled every 30 minutes and compared to the programmed MIN LUX level setting. With sufficient ambient light, when artificial light is unneeded, the fixture will not turn on with motion and continuous dim stand-by will turn off when dim LUX threshold is met by ambient light. Similarly, if fixture is off and ambient light drops below programmed MIN LUX threshold, the fixture turns on at programmed dim level.

3.2 Wall Switch Manual Override (Push Function)

Each transceiver has a PUSH connection which can be wired to a wall switch for individual control and enhanced energy savings:

- Wall switch SHORT push (<1sec) affects on/off function;
  - If fixture is ON, a short push of wall switch turns fixture OFF
    - The fixture remains OFF until motion is detected beginning with next sensor cycle.
    - The fixture sensor will not look for motion until expiration of programmed hold time (30sec -- 30min) and new sensor cycle begins.
  - If fixture is OFF, a short push of wall switch turns fixture ON and RF signals turns on all fixtures wirelessly grouped with that transceiver.
- Wall switch LONG push (>1sec) adjusts FULL ON level. This ON and hold-time level can be dimmed from 100% in increments down to 10% of FULL.

3.3 Easy connect, Loop-in, Loop-out Terminal Connections

Double L, N terminals for power in and switched power out .

SECTION 4 TROUBLE SHOOTING

MALFUNCTION CAUSE REMEDY	CAUSE	REMEDY
The load does not work	Incorrect light-control setting selected	Adjust setting
	Load faulty	Replace load
	Mains switch OFF	Switch ON
The load is always on	Continuous movement in the detection zone	Check zone setting
The load is on without any identifiable movement	The sensor is not mounted for reliably detecting movement	Securely mount enclosure
	Movement occurred, but not identified by the sensor (movement behind wall, movement of small object in immediate lamp vicinity etc.)	Check zone setting
The load does not work despite movement	Rapid movements are being suppressed to minimize malfunctioning or the detection radius is too small	Check zone setting