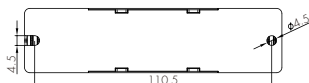
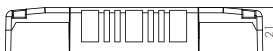
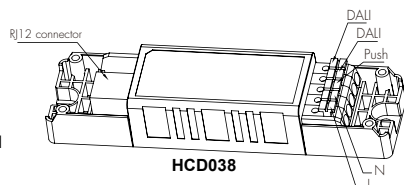
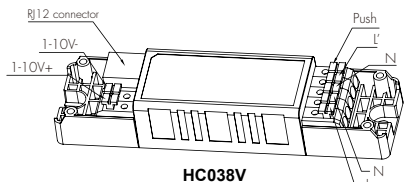


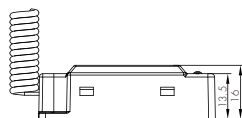
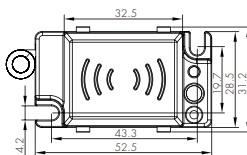
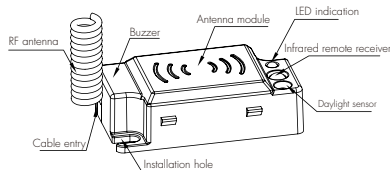
INSTRUCTION MANUAL FOR RF WIRELESS SENSOR DETACHED VERSION, MODEL NO.:HC038V / HCD038 + SAM8/SAM11+HC034RF

Technical Specifications

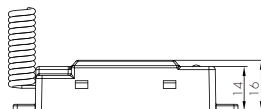
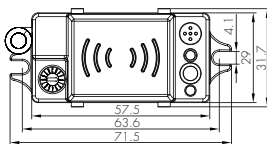
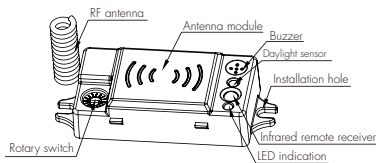
PRODUCT TYPE:	Microwave Motion Sensor
OPERATING VOLTAGE:	220-240VAC 50Hz/60Hz
HF SYSTEM:	5.8GHz CW radar
RATED LOAD (for HC038V):	400W (capacitive load)
OUTPUT (for HCD038):	Max. 15 devices, Max. 30mA
DETECTION ANGLE:	30° ~ 150°
POWER CONSUMPTION:	<0.5W
DETECTION RANGE (DxH):	Max. 12 x 6m
HOLD TIME:	30s ~ 30min.
DAYLIGHT SENSOR:	2 ~ 20Lux; disable
STAND-BY PERIOD:	0s, 10s ~ 30min, +∞
STAND-BY DIMMING LEVEL:	10% ~50%
MOUNTING:	Indoors, ceiling & wall mounted
WORKING TEMP.:	-20 ~ +60 °C



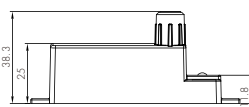
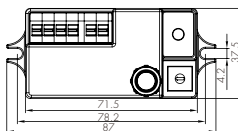
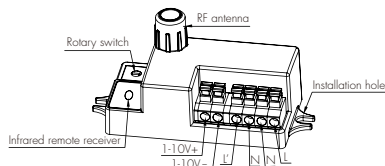
Model: SAM8 (RF grouping by remote control HRC-04)



Model: SAM11 (RF grouping by rotary switch or remote control HRC-04)



Model: HC034RF (RF receiver can serve as slave only, RF grouping by rotary switch or remote control HRC-04)



The sensor is an active motion detector; it emits a high-frequency electro-magnetic wave at 5.8GHz and receives its echo. The sensor detects the change in echo from movement in its detection zone. A microprocessor then triggers the switch light ON command. Detection is possible through doors, panes of glass and thin walls.

Note: the high-frequency output of this sensor is <0.2mW; approximately just 0.2‰ of the transmission power of a mobile telephone.

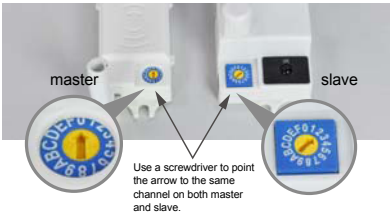
IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION AND RETAIN THIS LEAFLET IN A KNOWN AND SAFE PLACE FOR FUTURE REFERENCE.

RF Grouping via Rotary Switch (for SAM11 and HC034RF only)

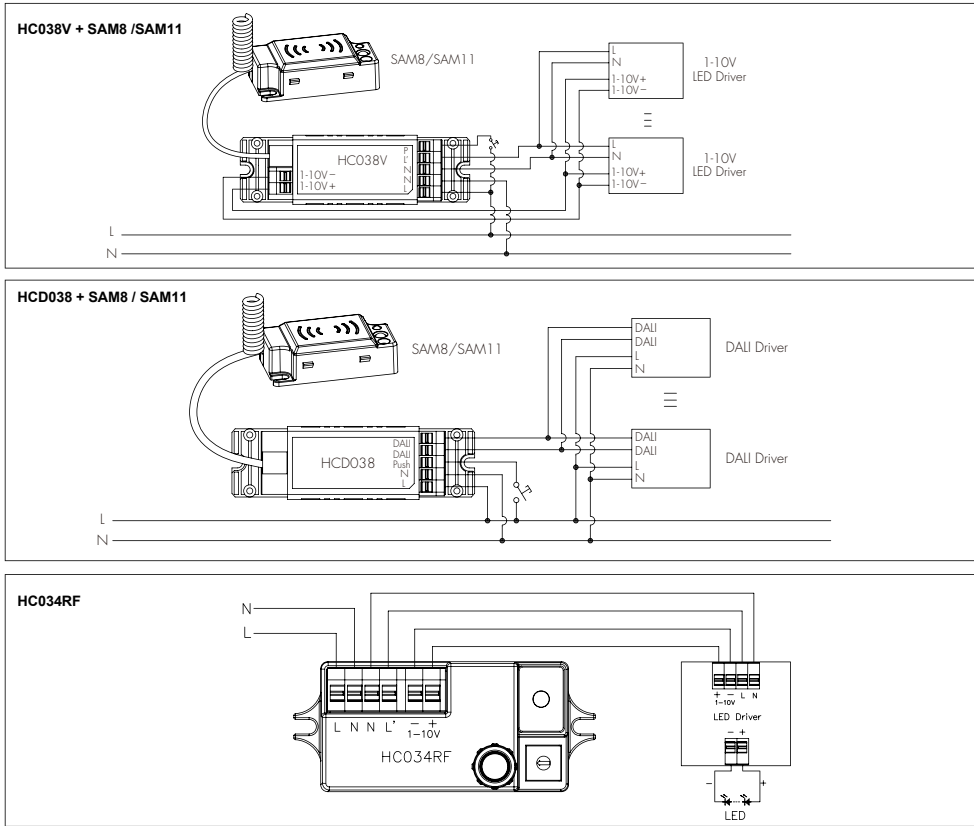
15 channels are available for fast grouping via rotary switch on the RF sensor antenna, simply selecting the same channel on each unit, the grouping is automatically completed.

Noted:channel "0" is not for fast grouping, and sensors can only be grouped by remote control.

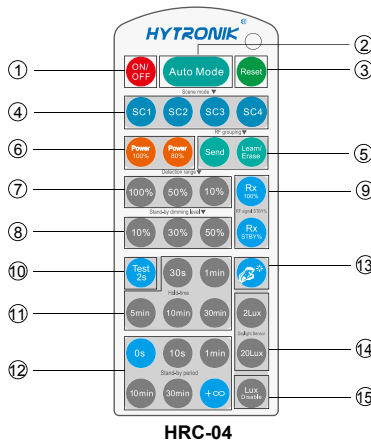


SECTION 1 INSTALLATION AND WIRING

- 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]

Press button ① to select permanent on or permanent off mode, sensor is disabled.

* Press buttons ② ③ ⑬ to resume automatic operation.

Auto Mode [button ②]

Press button ② to initiate automatic mode. The sensor starts working and all settings remain as before the light was switched on/off.

RESET [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 100%

Power output [button ⑥]

Press buttons ⑥, the output shifts between 80% and 100%, for energy saving purpose.

Brightness on RF signal [button ⑧]

Press button ⑧, the light(s) on slave is 100% on upon receiving RF ON signal; Press "Rx STBY%" button, the light(s) goes to pre-set stand-by dimming level directly.

Test 2s function [button ⑩]

Press button ⑩, the sensor goes into test mode (hold-time is 2s). The stand-by period and daylight sensor settings are disabled in test mode.

* Press button ③ ④ ⑪ to exit from this mode and the sensor settings are changed accordingly.

Ambient daylight threshold [button ⑬]

Press button ⑬, the latest surrounding lux value overwrites previous lux value learned, and is set as the daylight threshold.

Lux disable [button ⑮]

Press button ⑮, the built-in daylight sensor is disabled, the light will always operate upon detection, regardless of ambient light level.

Detection range [zone ⑦]

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

Hold time [zone ⑪]

Press buttons in zone ⑪ to set hold time at 30s / 1min / 5min / 10min / 30min.

Daylight sensor [zone ⑭]

Press buttons in zone ⑭ to set daylight sensor at 2lux / 20lux.

Stand-by period [zone ⑫]

Press buttons in zone ⑫ to set the stand-by period at 0s / 10s / 1min / 10min / 30min / +∞.

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

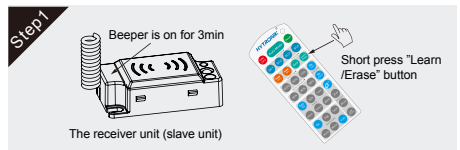
Stand-by dimming level [zone ⑧]

Press buttons in zone ⑧ to set the stand-by dimming level at 10% / 30% / 50%.

RF grouping [zone ④]

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.



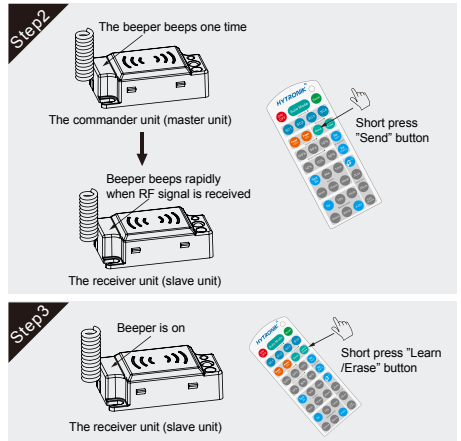
Short press "Send" button on RC, the commander unit (master unit) will beep one time to send the transmission signal.

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

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.



Scene mode options [zone ④]

There are 4 scene modes built into the remote control for different applications:

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: the end-user can fine tune the settings by pressing buttons of detection range ⑦ / hold time ⑪ / stand-by period ⑫ / stand-by dimming level ⑬ / daylight sensor ⑭, the last setting will over-write that feature of the preset scene.

SECTION 4 FUNCTION

4.1 Daylight Monitoring Function

Hytronik specially designed this function in software for deep energy-saving purpose. A built-in daylight sensor is designed to provide "smart photocell" function. This function can only be activated when stand-by period is set to "+∞". In this mode the lamp will automatically illuminate at the dim level setting when the natural light goes below the threshold setting. The fixture will also switch off as the natural light returns.

4.2 Manual Override

This sensor maybe over-riden by the end-users to switch on/off the lights manually, or adjust the maximum brightness during motion hold-time with the push-switch. This makes the product more user-friendly and offers more options to fit for extra-ordinary demands.

* Short push (<1s): on/off function;

ON → OFF: the light turns off immediately and cannot be lighten for a certain time (equals to hold time preset) even there is movement is detected. After this period, the sensor goes back to auto sensor mode.

OFF → ON: the light turns on 100% and goes to auto sensor mode, even when ambient Lux level exceeds the daylight threshold.

* Long push (>1s): adjust the maximum brightness (between 10% and 100%) during hold-time.

* If no end-user adjustment is desired, simply leave this terminal disconnected.

4.3 Loop-in and Loop-out Terminal (HC038V & HC034RF)

Double L N terminal makes it easy for wire loop-in and loop-out, and saves the cost of terminal block and assembly time.

SECTION 5 TROUBLE SHOOTING

MALFUNCTION CAUSE REMEDY	CAUSE	REMEDY
The light will not come on	Incorrect light-control setting selected	Adjust daylight threshold setting
	Faulty lamp	Replace lamp
	No power supply	Check power to sensor
The lamp is always on	Continuous movement in the detection zone	Check detection area setting
The lamp 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.)	1. Reduce sensitivity. 2. Check the movement behind walls to avoid facilities such as water pipe, fan, which may mis-trigger the sensor.
The lamp will not work despite movement	Rapid movements are being suppressed to minimize malfunctioning or the detection radius is too small.	Check detection area setting