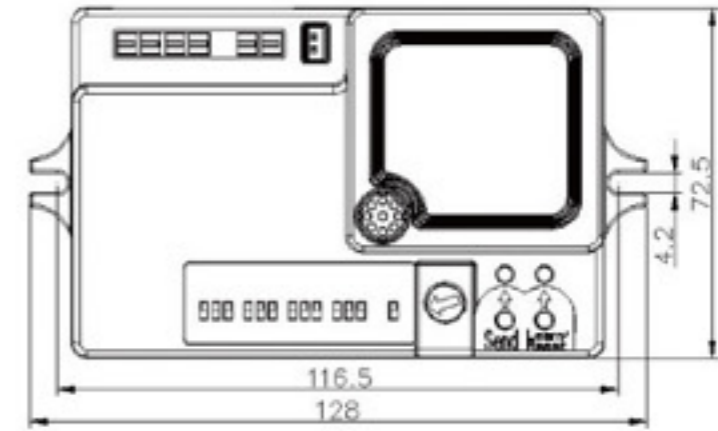
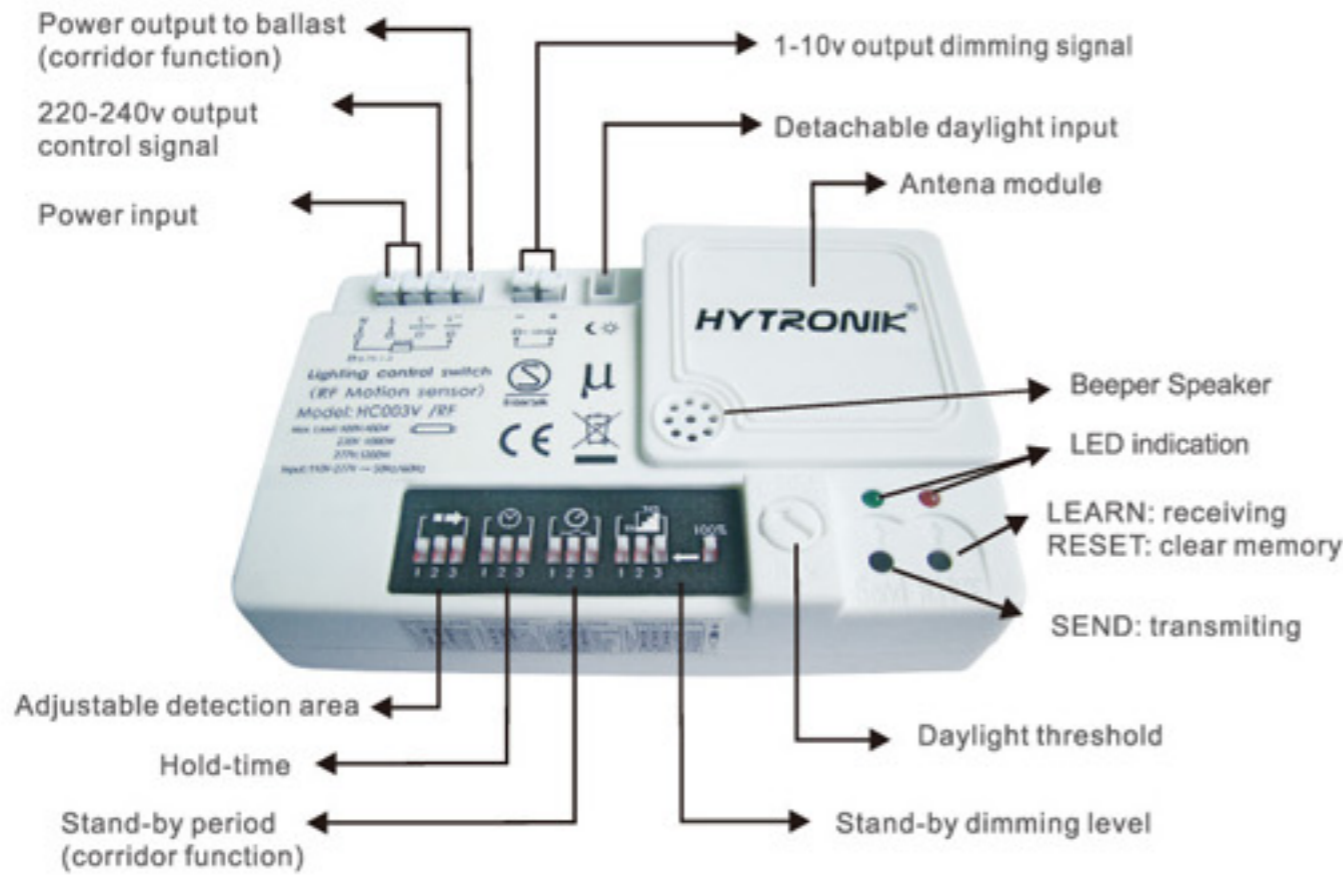


RF communication version (RF transceiver)



HC003V /RF (220-240v)
HC403V /RF (120-277v)

1. Output function:

This is a combination of motion sensor and R F radio wave wireless transmission. The motion at 1 sensor (the master unit) can be passed onto other pre-defined individuals (the slave units) though R F transmission. Up to 15 units can be programed and grouped by means of teach-and-learn method. With KEELOQ coding technology, 1 master can triger max. 15 slaves at the same time, and 1 slaves can respond up to 15 masters respectively.

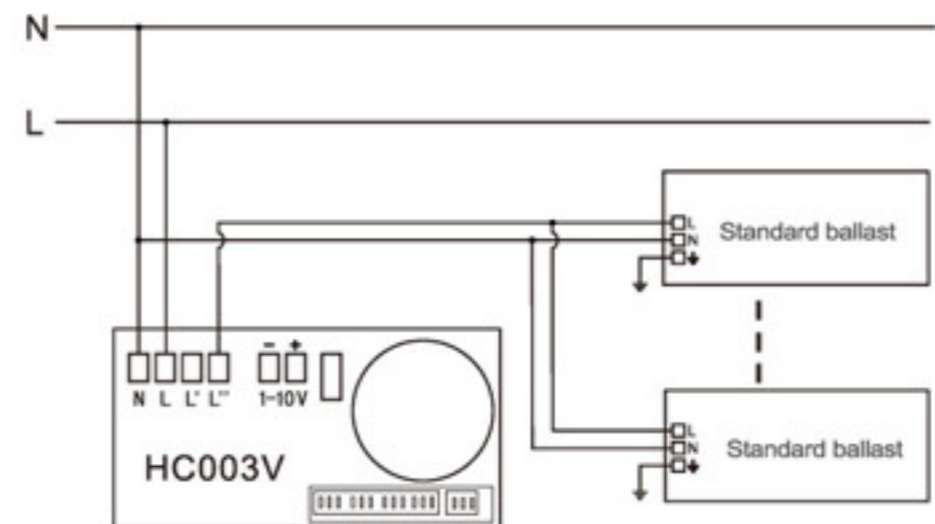
With both 1-10v output signal and 220-240v signal, it can switch on/off any lighting applications, and dim fluorescent lamps,HID lamps as well as LED lamps.

A : on/off function with non-dimmable ballast--

The sensor can switch on/off halogen transformer,non-dimmable fluorescent ballast, non-dimmable LED drivers. However there is a limit of max. Load due to the inrush current.

max. Load (inductive load)--

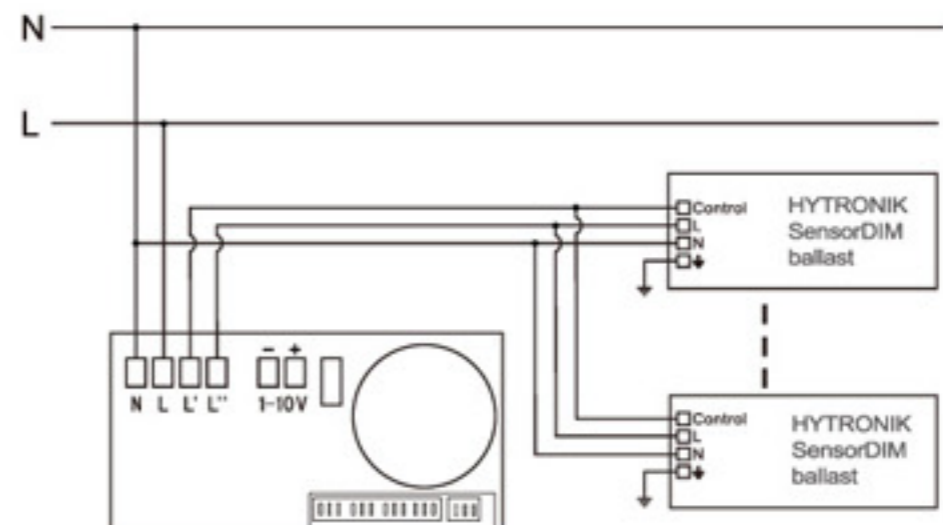
HC003V: 800w HC403V: 800w at 120v;
1200w at 277v.



B : dimming function with HYTRONIK sensorDIM ballast--

This dimming functions works with HYTRONIK sensorDIM ballast only. The output signal is connected to the control terminal on the ballast, which switches on the light at 100%, and dims to 10% when the signal passes out.

HYTRONIK sensorDIM ballast has a wide coverage on various models and watages of plug-in fluorescent lamps, T5, T8,HID lamps as wellas all constant current LED lamps.



max. 800w

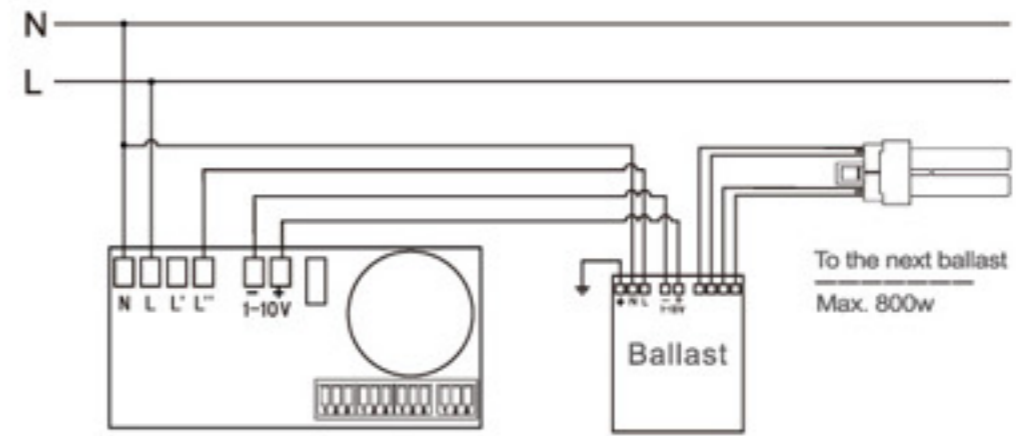
For detailed information about the sensorDIM ballast, please refer to page 33.

C: dimming function with ordinary 1-10v dimmable ballast--

This dimming functions works with any ordinary 1-10v analogue dimming ballast, including plug-in fluorescent lamps, T5, T8, and HID lamps.

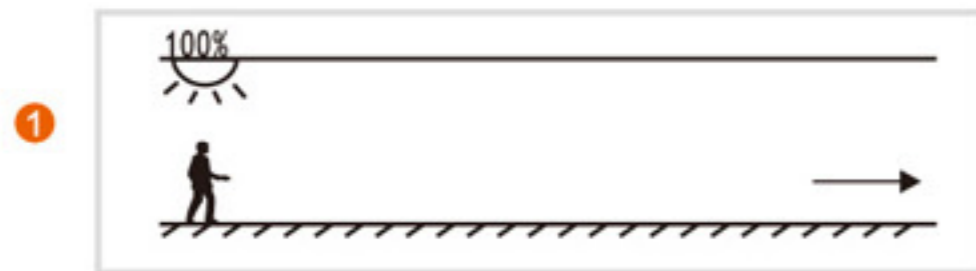
max. Load (inductive load)--

HC003V: 800w HC403V: 800w at 120v;
1200w at 277v.

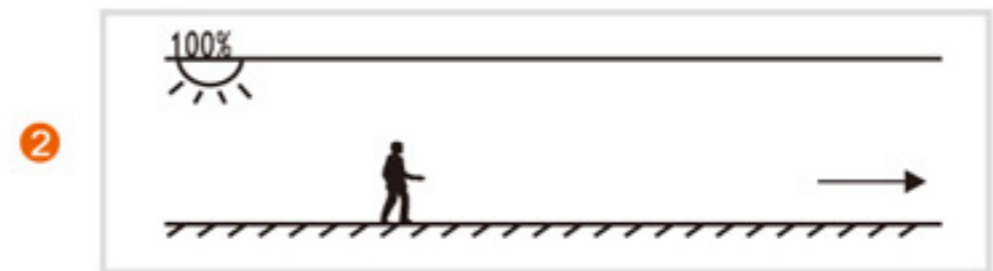


2: corridor function--

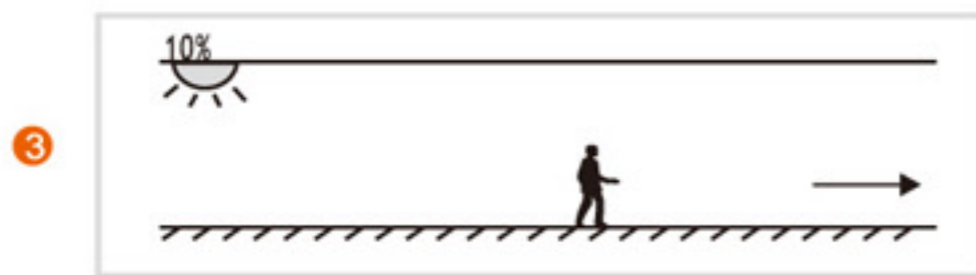
Same function as Tridonic Excel ballast, HYTRONIK has built in the corridor function inside the motion sensor instead...



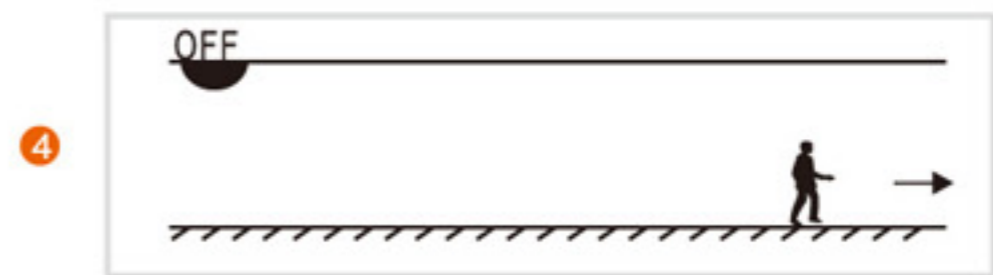
1 Movement of people activates the lamp.



2 Lamp is still on at 100% during the hold time.



3 Lamp is dimmed to 10% after holdtime, system goes to stand-by period

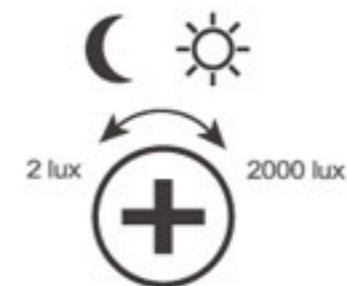


4 Lamp is switched off after the stand-by period

3: sensor setup--

Detection area, motion holdtime, daylight threshold, stand-by period, and stand-by brightness can all be precisely setup on the DIP switches.....

a) Daylight sensor threshold: ☀ 2 - 2000 Lux



b) Motion hold time: ⌚ (5s/30s/1min /5min /10min)

Recommendation

	1	2	3	
I	●	●	●	5s
II	○	●	●	30s
III	●	○	●	1min.
IV	●	●	○	5min.
V	○	●	○	10min
VI	○	○	○	20min

c) Detection range: (100% /75% /50% /30% /10%)

Recommendation

	1	2	3	
I	●	●	●	100%
II	○	●	●	75%
III	●	○	●	50%
IV	●	●	○	30%
V	○	○	○	10%

d) Standby time: ⌚ (disable/1h/30min/10min/1min)

Recommendation

	1	2	3	
I	●	●	●	Disable
II	○	●	●	1h
III	●	○	●	30min
IV	○	○	●	10min
V	○	○	○	1min

e) Standby dimming level: 📊 (1-10v DC signal 5V /4V /3V/ 2V/ 1.4V)

Recommendation

	1	2	3	1-10V DC signal	Brightness
I	●	●	●	5V	45-50%
II	○	●	●	4V	35-40%
III	●	○	●	3V	25-30%
IV	●	●	○	2V	15-20%
V	○	○	○	1.4V	5-10%

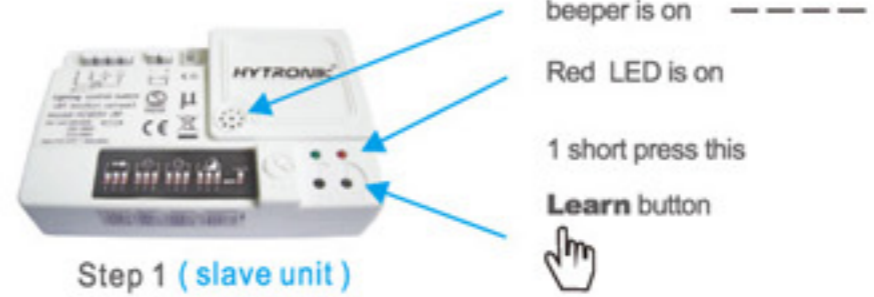
4.RF transmission:

The motion signal from 1 sensor (the master sensor) can be transmitted to and trigger on other sensors (the slave unit) by RF transmission. This wireless radio wave transmission can reach 50 meters in open area.

5.RF grouping (max. 15 channels):

A. Press **LEARN** button on the receiving unit, the sensors goes into 180s of teach-and-learn period, in which electrician have enough time to go back to master unit to release transmission.

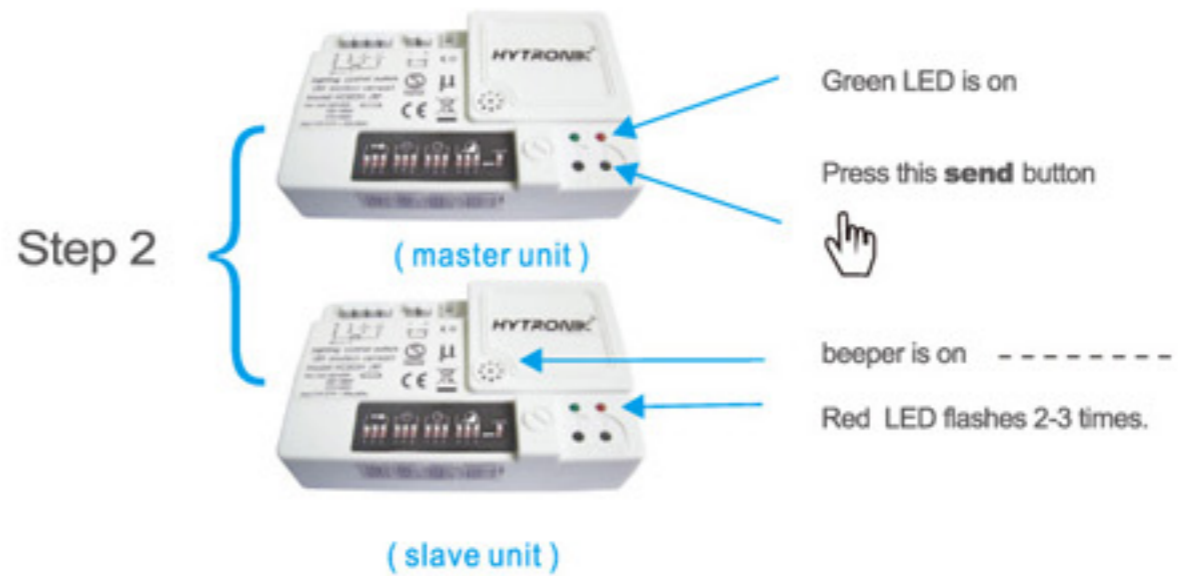
red LED is on, and the beeper gives long indication:



Step 1 (slave unit)

B. Press the **SEND** button on the master unit to send RF signal, the green LED on the master unit is then on to indicate the success of transmission. and the beeper turns to short indication:

Upon receiving the transmission signal, the red LED on receiving unit will flash 2-3 times, which is the indication of successful teach-and-learn; and the beeper turns to short indication:

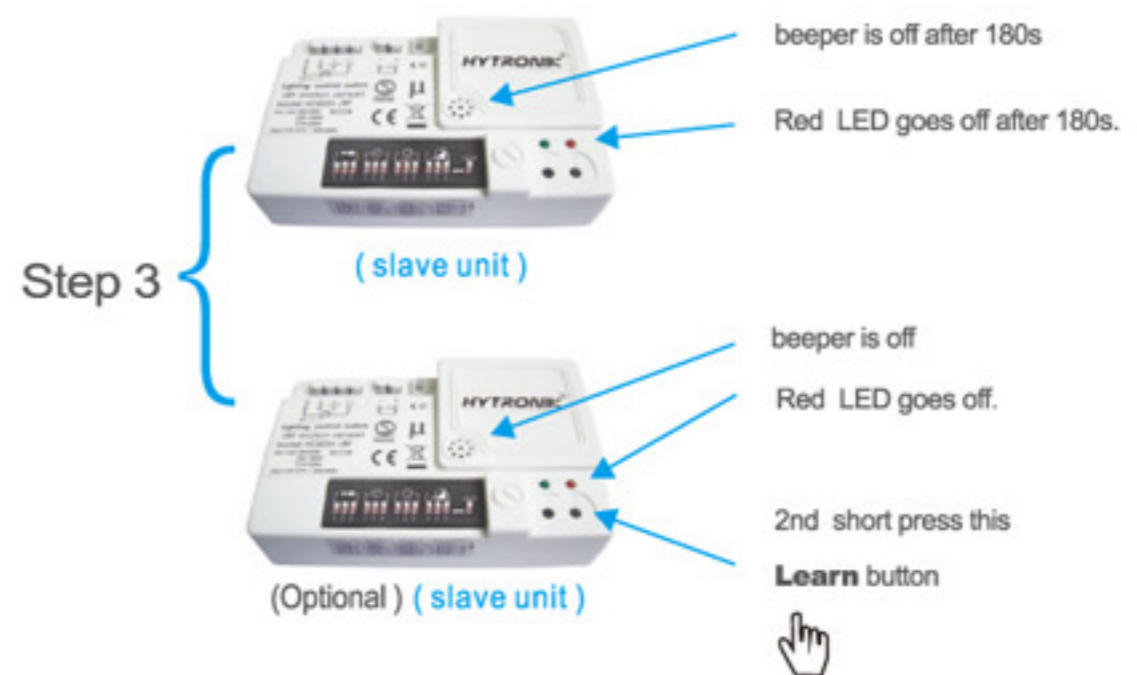


Step 2

(master unit)

(slave unit)

C. Wait for 180s period ellapes, till the short beeper stops as well as the red LED on receiving unit goes off. The whole teach-and-learn process is completed. Or-- Short press the **Learn** button again within the 180s period to finish the whole teach-and-learn process.



Step 3

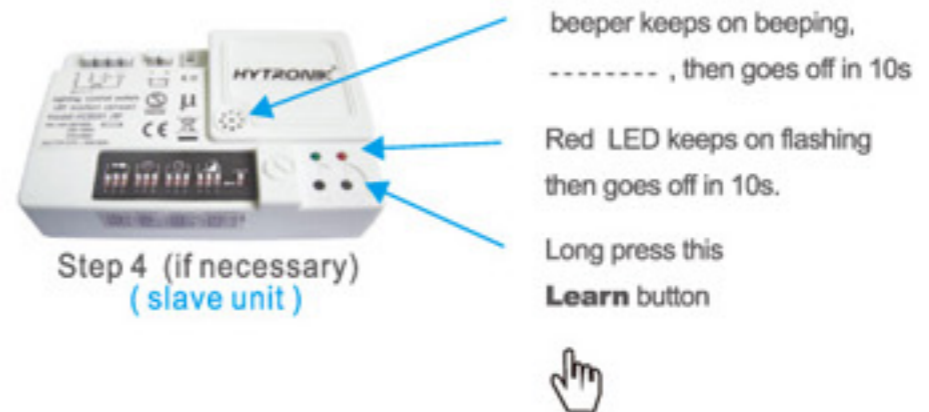
(slave unit)

(Optional) (slave unit)

D. A long press on **Learn** button (about 10s) resets and clears all previous commands it has received—

1. the red LED keeps on flashing and then goes off in the end ;
2. at the same time the beeper keeps on short beeping and then stops in the end;

this is the indication of a successful reset and erase of all the previous groupings.



Step 4 (if necessary) (slave unit)

For comfort and efficienct of installation, it is highly recommended to finish the grouping work at 1 place in 1 effort before the fixtures are seperately installed in different locations.

6. typical application--

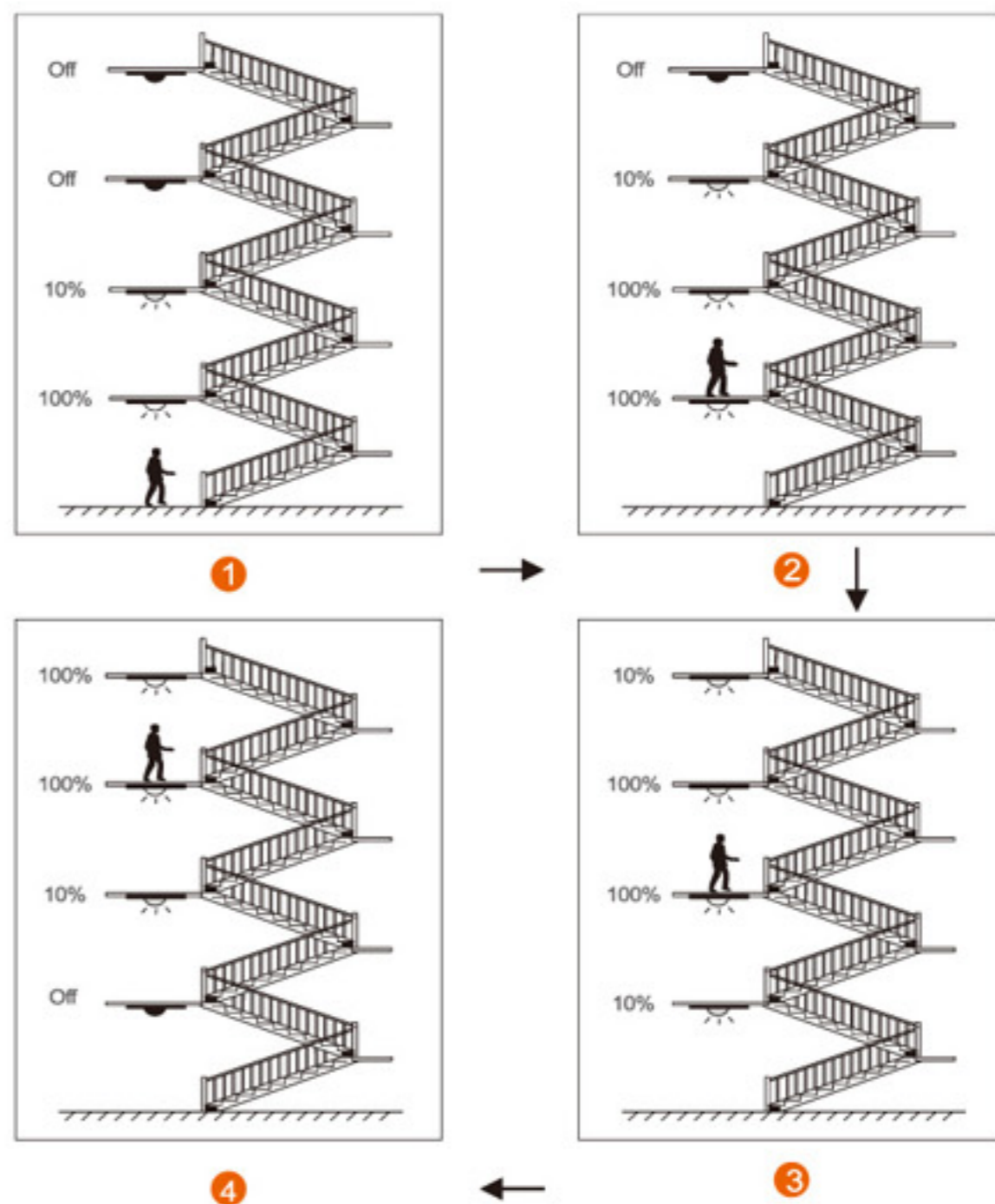
This motion detection in combination with R F feature is an ideal choice for automatic lighting application in the stairwell--

When the first sensor detects motion, it passes on the signal to other members in the group by R F transmission and receiving. So that the lighting ahead can be switched on to 10-50% stand-by status.

In this application--

detection area--100%
 motion holdtime--30 s
 daylight threshold-- 50 lux
 stand-by brightness--10%




stand-by period--60s.
 Dimmable ballast-- 1-10v ballast, or
 sensorDIM ballast.



Technical Data

Operating voltage:	HC003V /RF--220-240v ; HC403V /RF--120-277v
Switched power:	HC003V /RF--800w ; HC403V /RF--800w/120v, 1200W/277v.
Coding	Keeloq rolling code (tech/learn/reset/memory)
Detection area	10 / 30 / 50 / 75 / 100% , can be customized
Hold time	5s/30s/1min/5min/10min , can be customized
Daylight threshold	2--2000 lux
RF. Communicatin Channels	15 channels for grouping
Microwave frequency	5.8 GHz +/- 75 MHz
Microwave power	<1mw
Detection range	Max. (ϕ x H): 16m x 20m
Detection angle	10--150°
RF. Transmission distance	50 meters in open area
Mounting height:	0.5--10m.
Operating temperature:	-20 °C ~ +70 °C
Detection area	433 MHz

Compliance and Marking

EU directives:	Standards:		Safety certification
Nr. 1999/5/EC	IEC61000-4-2	IEC61000-3-2	  
Nr. 2004/108/EC	IEC61000-4-3	IEC61000-3-3	
Nr. 73/23/EEC	IEC61000-4-4	EN60669-2-1	
Nr. 2002/95/EC	IEC61000-4-5	EN60669-1	
ETSI EN 300 440-2	IEC61000-4-6	CISPR 14	
ETSI EN 300 440-1	IEC61000-4-8	CISPR 15	
EN 50371	IEC61000-4-11		
EN 60669-2-1 + EN 60669-1(EMP)	ETSI EN 301 489-3 V1.4.1(2002-08)		
ETSI EN 300 220-2 V2.1.2(2007-06)	ETSI EN 301 489-1 V1.8.1(2008-04)		
ETSI EN 300 220-1 V2.1.1(2006-04)			