

New PIR sensor in small and attractive design, low consumption, wireless, working to 433,92MHz. Ideal for smart home application, motion detection, home alarm.

- 3V CR2450 Lithium battery, able to guarantee 2-3 years operation
- PIR coverage area 6mt max. Wide angle fresnell lens
- Consumption in PIR detection 10uA max
- Alarm transmission by radio frequency operating at 433,92MHz
- RF encoder type, Keloq HCS Microchip
- RGB Led indication for low battery alarm and installation operations.
- Local low battery alarm

Set up for installation (pir sensitivity and radio check):

Remove the bottom cover and insert a lithium battery CR2450.

The Blue led switch-on for 1 second, the radio transmit for 1 second. Start procedure finish with 3 blink of the blue led.

Close the cover and push the internal tact switch and release (see picture 2).

The yellow led switch-on for 1 second (the appearance colour is yellow at 3V and orange at <2,7V), the inhibition time is programmed to detect alarm every 4 second. Install the sensor and walk in front, right and left of the sensor, the RED led switch-on every time the PIR detects a movement.



Picture 2

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PIR sensitivity setup: the setup procedure lets to change the PIR sensitivity.

4 different sensitivity level is available.

Procedure: touch the central button, the green led blink from 1 to 4 time (level 1= 0,5mt – level 4=6mt) every time the central button is touched the sensitivity level increases from 1 to 4, go back to level 1 and so on.

Transmission test: touch the lateral touch button, the radio transmit and the red led switch-on until the touch button is released.

After 4 minutes the sensor ends the test mode and enters in alarm mode.

The orange led blink 3 time, the inhibition time is set up to 4 minutes.

Battery alarm:

When the battery level is < 2,2Volts and an alarm is detected, the red led blink 3 time together to the radio alarm message. The battery level is transmitted in HCS packet too.

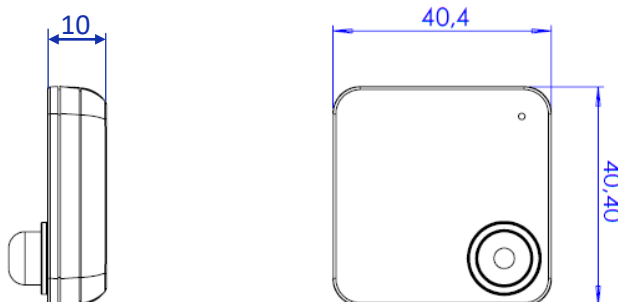
The battery alarm only works in alarm mode.

Radio Encoder:

The encoder generate a unique code programmed in factory for each device, the packet integrate a fix part and variable part of code. The code is standard HCS300 of Microchip.

- The HCS encoder set to 1 the bit n°65 of HCS when the battery drops below 2,2V.
- The PIR sensor generate an alarm with HCS code, see following table.

Name Alarm	HCS button status code (S3 – S2 – S1 – S0)
Test code	0010
PIR alarm	0010

Mechanical Dimension


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Main features

DESCRIPTION	MIN.	TYPICAL	MAX.	
RF Center Frequency	433,91	433,92	434,93	MHz
Supply Voltage		3,0		Volts
Consumption (continuous carrier)		20		mA
Consumption – Stand by Condition: ON sensor, Radio off		9,5		uA
Detector circular coverage		120		°
RF ERP 433,92MHz		-2		dBm
Power spurious <1GHz			-40	dBm
Power spurious >1GHz			-30	dBm
Temperature	-10		+55	°C
Dimension	40 x 40 x 10 mm			

Specification revision:

Release date	Revision	Changes from the previous revision
24/01/2025	1.0	First release