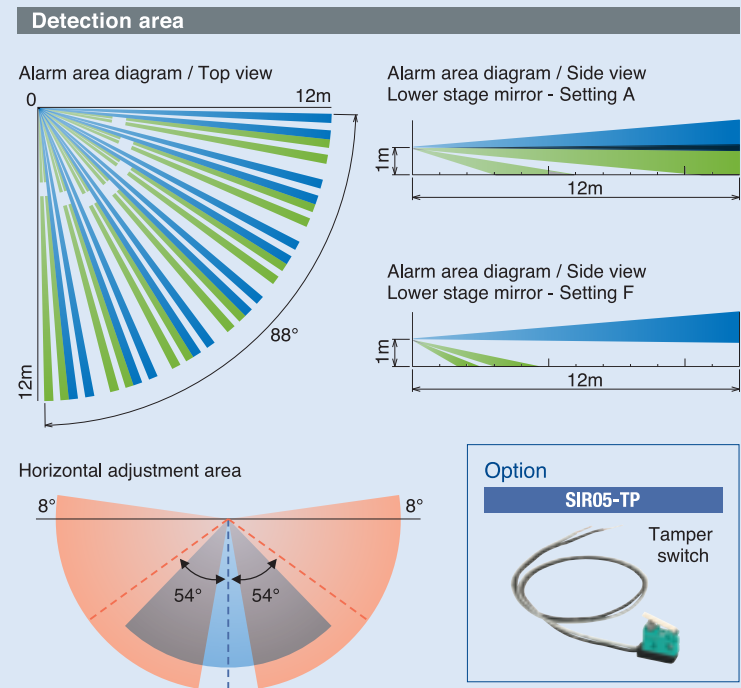
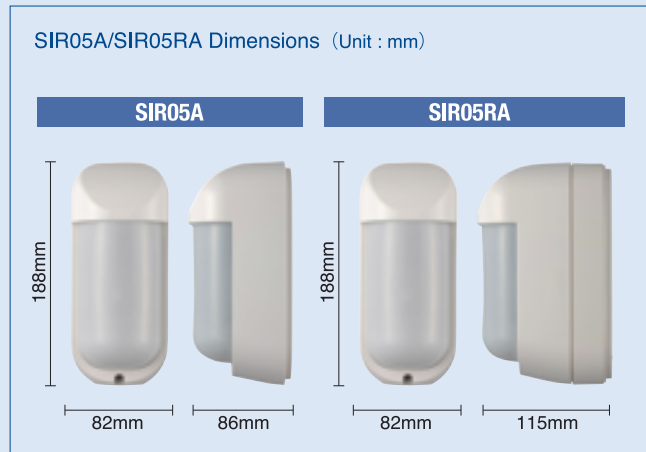


# Synyu Watcher

WIRED MODEL **SIR05A** WIRELESS MODEL **SIR05RA**



Product name	Intelligent outdoor detector		
Model	SIR05A	SIR05RA	
Power	10.5 - 28.0 V DC	3.0 - 9.0 V DC	
Current draw	25 mA (maximum)	25 µA (standby) 4 mA (maximum)	
Operating temperature and humidity range	-25 - +50°C RH 95% or less		
Storage temperature and humidity range	-30 - +60°C RH 95% or less		
Installation height	0.8 - 1.2 m		
Detection area	12 m, 88°		
Detection zone (sector)	14 pairs (42 sectors)		
Detection method	Passive infrared system		
Indicator lights	Self-diagnostic	Flashing (once a second)	High ↑ Priority ↓ Low
	Power supply monitoring	Flashing (five times a second)	
	Warm-up	Flashing 1 minute (three times, twice or once a second)	
	Anti-masking	Flashing (five times a second)	
	Test mode	Upper stage mirror : Flashing (once every 2 second) Lower stage mirror : Flashing (twice every 2 second)	
	Detection	Lighting	
	AUX input	Lighting (while switch 6 is ON and the AND condition is satisfied)	
Detection output	Non-voltage contact (1a/1b selectable) Contact operation : One-shot (2 seconds) Contact capacity : 30 V DC 0.3 A (resistance load) Output resistance when closed : 3 Ω or less	Non-voltage contact (1a/1b selectable, Solid state switch) Contact operation : One-shot (2 seconds) Contact capacity : 9 V DC 0.01 A (resistance load) Do not apply voltage higher than the Power input voltage.	
Anti-Masking output	Non-voltage contact (1b) Contact operation : When masking is performed for one minute or more Contact capacity : 30 V DC 0.3 A (resistance load) Output resistance when closed : 3 Ω or less	—	
Tamper output	Non-voltage contact (1b) Contact operation : Open when the cover is open Contact capacity : 30 V DC 0.1 A (resistance load) Output resistance when closed : 3 Ω or less	—	
Trouble output	—	Non-voltage contact (1a/1b selectable, Solid state switch) Contact operation : Open when masking is performed Contact capacity : 9 V DC 0.01 A (resistance load) Do not apply voltage higher than the Power input voltage.	
Detection speed	0.3 - 2.0 m/sec		
Detection sensitivity	1.5°C (temperature difference with background) Walk speed : 1 m/sec Environment temperature : +35°C Sensitivity setting : 100%		
Main device adjustable range	Horizontal ±54°, vertical ±5°, and 6-step distance adjustment (2.5~12m)		
Installation location	Installation location Wall/pole, Indoor/outdoor (IP55)		
Weight	350 g	450 g	
Color	White (DIC G-21)		

●The product of this catalog is not a burglar-preventing device. Each user is requested to make effective use of this product under each user's sufficient control. ATSUMI shall not be liable for damages caused by thefts, etc.  
●The actual color of this product may be slightly different from this catalog's printed image.●Due to ongoing product improvements, specifications and designs are subjected to change without prior notice.

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# Synyu Watcher

WIRED MODEL **SIR05A** WIRELESS MODEL **SIR05RA**



**OUTDOOR  
WIRELESS  
PET  
FRIENDLY  
DETECTOR  
DEBUTS!**

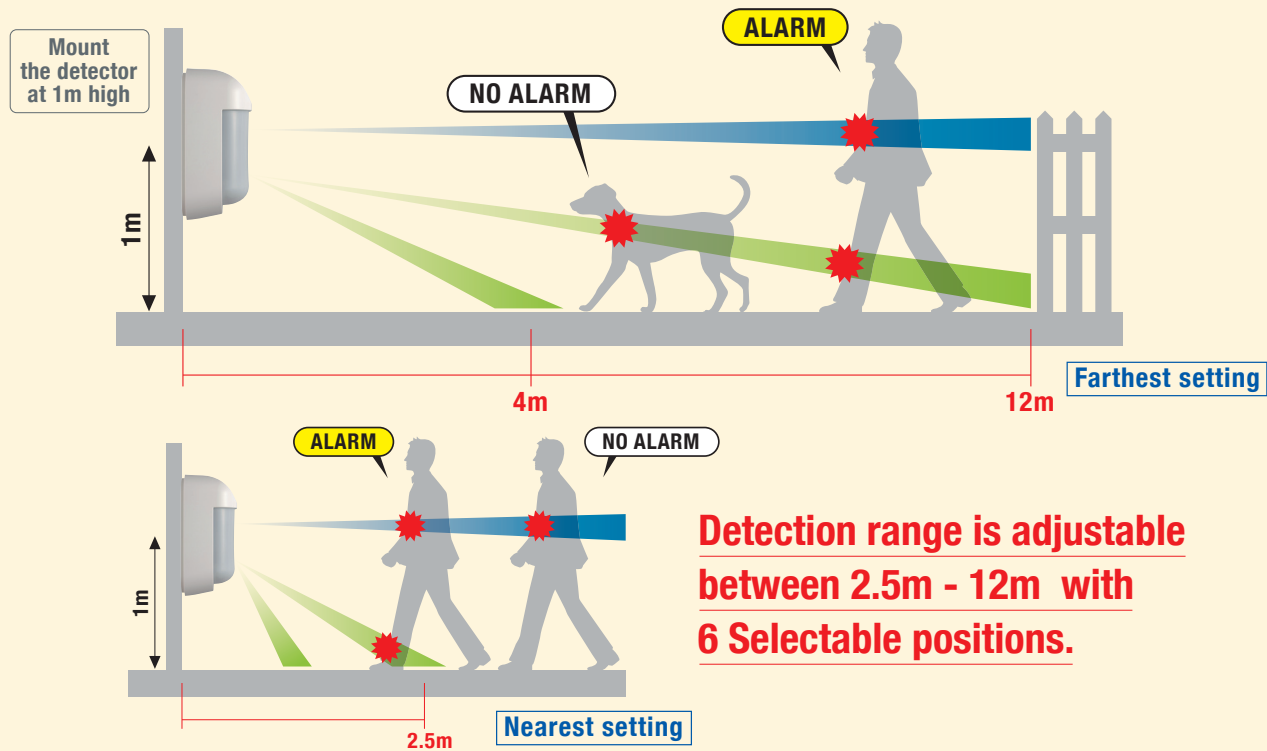
Adoption of mirrors achieves  
a high detection sensitivity!



**ATSUMI**

**POINT-1**

## Alarm signal is output when Upper(Blue) and Lower(Green) sensors detect objects simultaneously.

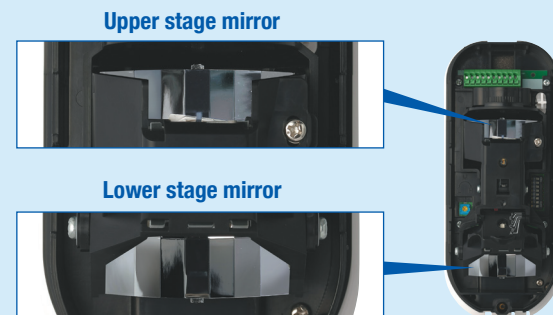


Detection range is adjustable between 2.5m - 12m with 6 Selectable positions.

**POINT-2**

## Achieve a high detection sensitivity in the adoption of the mirrors

- Since the edge of the detection zone of the mirror is sharp, the detection sensitivity is high.
- As the coverage of the detection zones are not affected by the temperature of the objects and the background, the position of the zone is accurate. Therefore the detection accuracy is high.



**POINT-3**

## SCAA (Super Compound Analysis Algorithm)

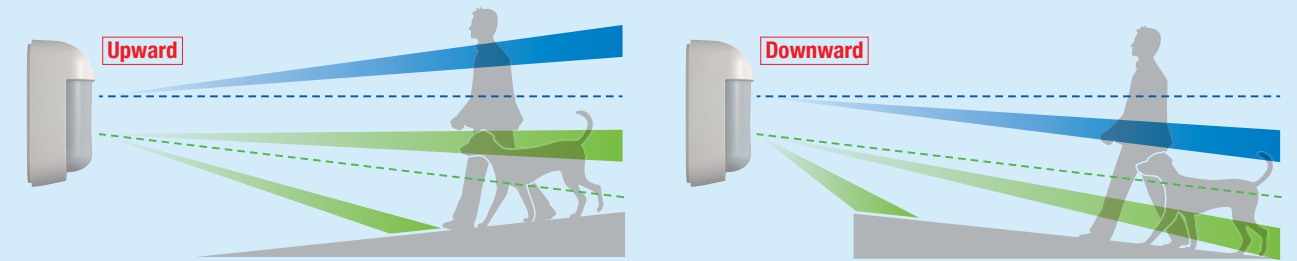
SCAA is newly designed for Digitally controlled 2 sensors in the Vertical double stage with the horizontally shifted sensor elements. SCAA plays an effective role for high detectivity and high rejection ratio of false alarms.

EXTERNAL LIGHTS	FLYING OBJECTS	SWAYING OBJECTS
e.g. Sun light, Car's head light	e.g. Insects, birds, leaves	e.g. Trees, vegetations
As Sector A and B are facing different direction, the light from one direction is not detected simultaneously and does not trigger an alarm.	As distance between Sector A and B is wide enough, and they are facing different direction, flying objects are not detected simultaneously and does not trigger an alarm.	As Sector A and B are facing different direction, when vegetation sways by wind, it is not detected simultaneously and does not trigger an alarm.

# Adoption of the mirror lead to zero false alarm.

**POINT-4**

## Adjustable for the slope ground

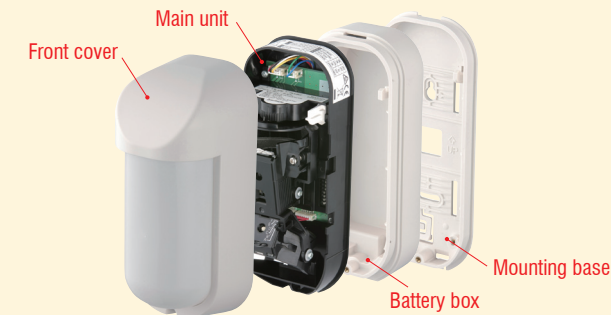


As the whole mirror units is adjustable vertically so that it is easy to fit to the slope ground. The upper stage zone should parallel the slope ground. The adjustable angle is  $\pm 5^\circ$  ( $\pm 1m$  at 12m away)

**POINT-5**

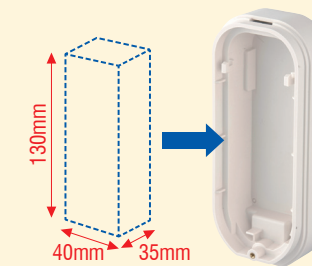
## Wireless operation for SIR05RA

### STRUCTURE OF SIR05RA FOR WIRELESS UNIT



Wireless Transmitter of your system can be built in SIR05RA. SIR05RA is designed as the low current consumption and it is enable to be powered by the battery.

### BATTERY BOX



Battery box has a large space so that many kind of wireless transmitters and batteries can be built in.

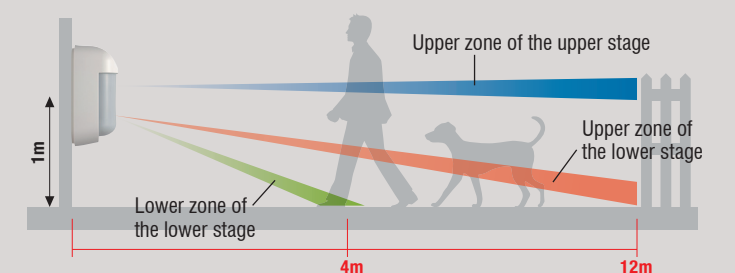
### Recommended Batteries

	Approx. battery life
<b>CR123A</b>	: 5.6 years
3VDC,1400mAh	
<b>1/2AA</b>	: 4.8 years
3.6VDC,1200mAh	
<b>CR2</b>	: 3.4 years
3VDC,850mAh	

This life time is reference only. It changes according to applications.

## Mirror masking

If objects (e.g. vegetation, spring, garage, sidewalk, etc.) which make false alarms are in the detection area, these objects can be virtually removed by masking the corresponded parts of the mirror.



The lower stage sensor has 2 layer zones. In case masking the upper zone of the lower stage, the lower zone of the lower stage still cover the area near SIR05.

## LED indicator

LED indicator lights when the alarm is output. In testing mode, Upper and Lower sensors light LED independently so that it is easy to recognize which one activates LED. LED lights brighter in test mode than normal operation for easy installation.

## Pulse count

Pulse count can be set according to the environment conditions to eliminate false alarms.

## External light filter

Cut off the unwanted external lights to eliminate false alarms.

## Power save

In case the number of detection increases, the number of alarm output is limited to save the battery life time.

## Tough design for Outdoor

Adoption of the weatherproof grade plastic material and IP55 mechanical structure allows to use outdoor stably.

## Anti masking

In case the detector is masked, the trouble signal is output.

## Wall tamper (Option)

Wall tamper outputs the tamper signal when SIR05 is removed from the wall.

## Mounting to Wall or Pole

Pole diameter is selectable according to your application. Note: The suitable metal band for mounting base and pole should be chosen.