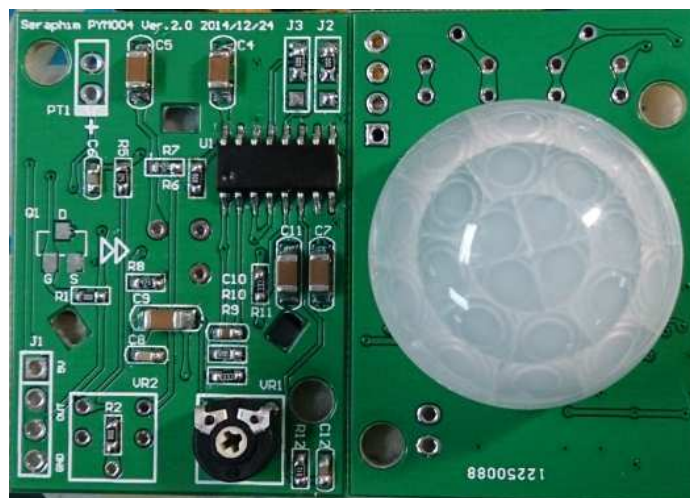


1. General Description

PYM004 is a small size PIR sensor module. PIR sensitivity and Output delay time are adjustable through VR. PYM004 has built in amplifier and logic circuit with EMI protection. The Fresnel lens is included in module for the detection of human body motion. It is very suitable for automatic illumination system.

2. Features

- Small size 28mm*40mm
- Ball Lens is included as standard configuration
- 2 mounting holes on board
- Adjustable output delay timer for LED lighting control.
- Sensitivity is adjustable for human body motion detection
- Output “High” for direct connect to control panel
- Very low power consumption



3. Application

- Security Products
- Human body motion detection
- LED lighting control

It can automatically and quickly open various types of incandescent, fluorescent lamps, buzzer, automatic doors, and electric fans. Especially suitable for enterprises, hotels, shopping malls, warehouses and family aisles, corridors and other sensitive places.

4. Electrical Characteristics

Parameter	Condition	Symbol	Min	Typ	Max	Unit
Operation voltage		Vdd	3	5	5.5	V
Operation current	Vin=5V, Output=High			90		uA
Standby current	Vin=5V,			45		uA

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<http://www.seraphim.com.tw>

	Output=Low					
Warming time	Power on =5V			37		sec
Operation temperature		-20			70	°C

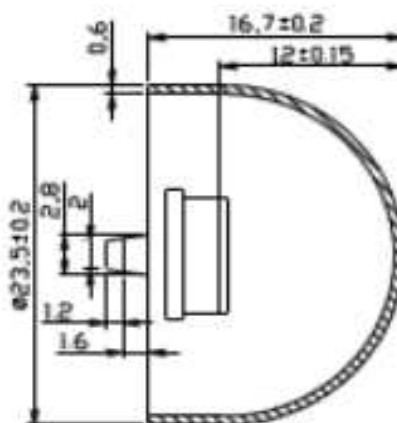
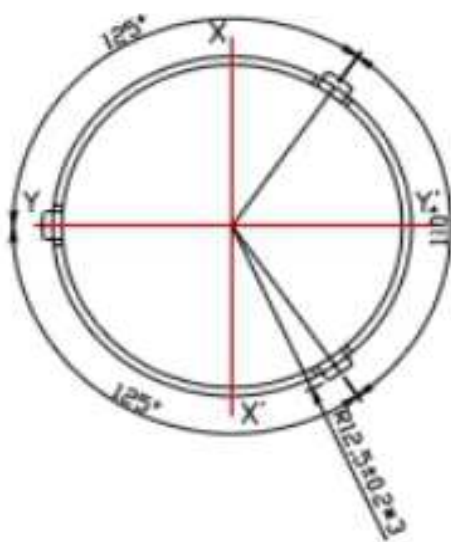
5. Optical Characteristics

5.1. Standard Type



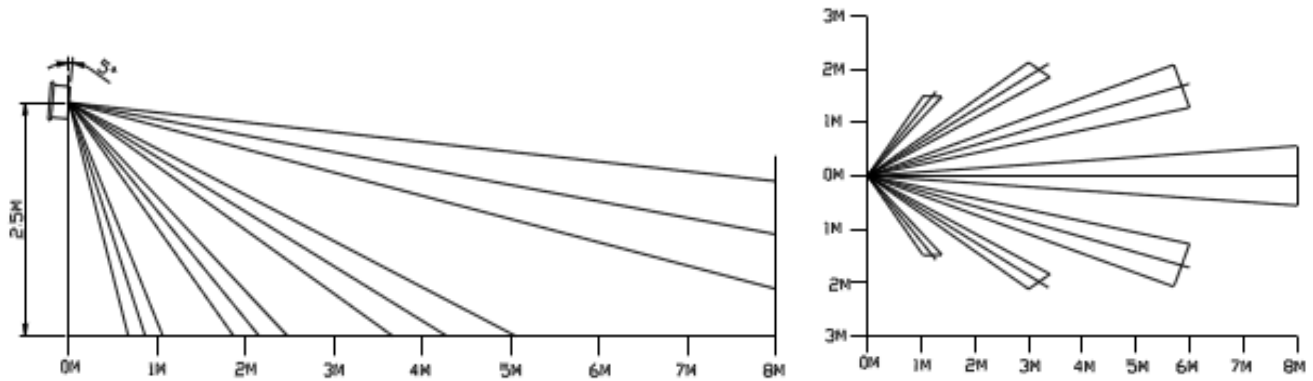
Dimension:(Unit = mm)

DIMENSION:(Unit=mm)

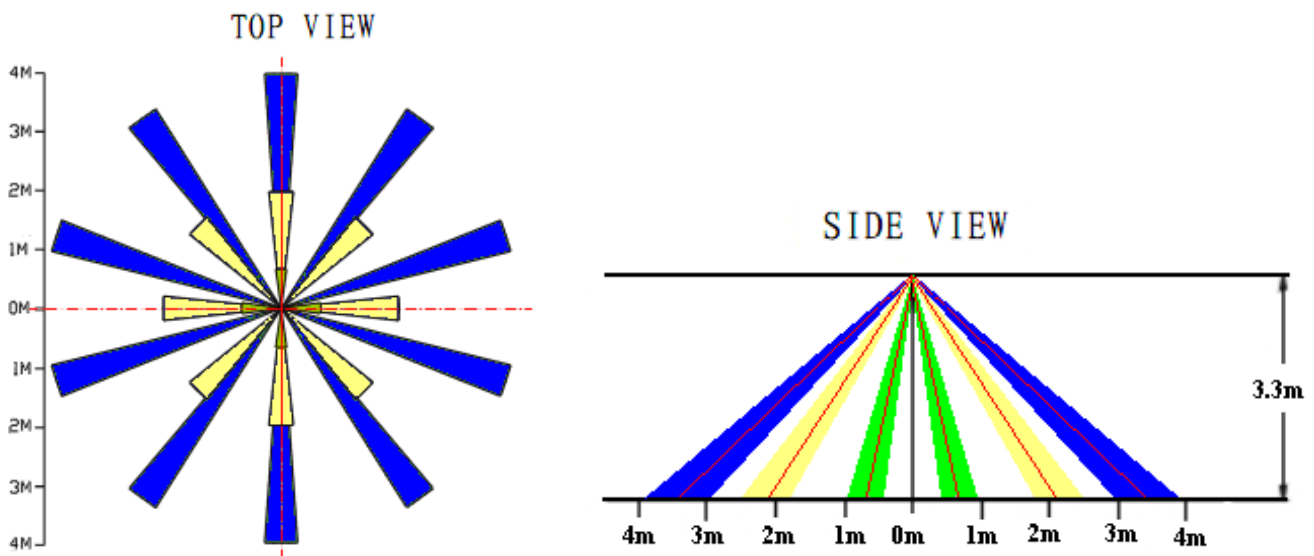


a) Lens design

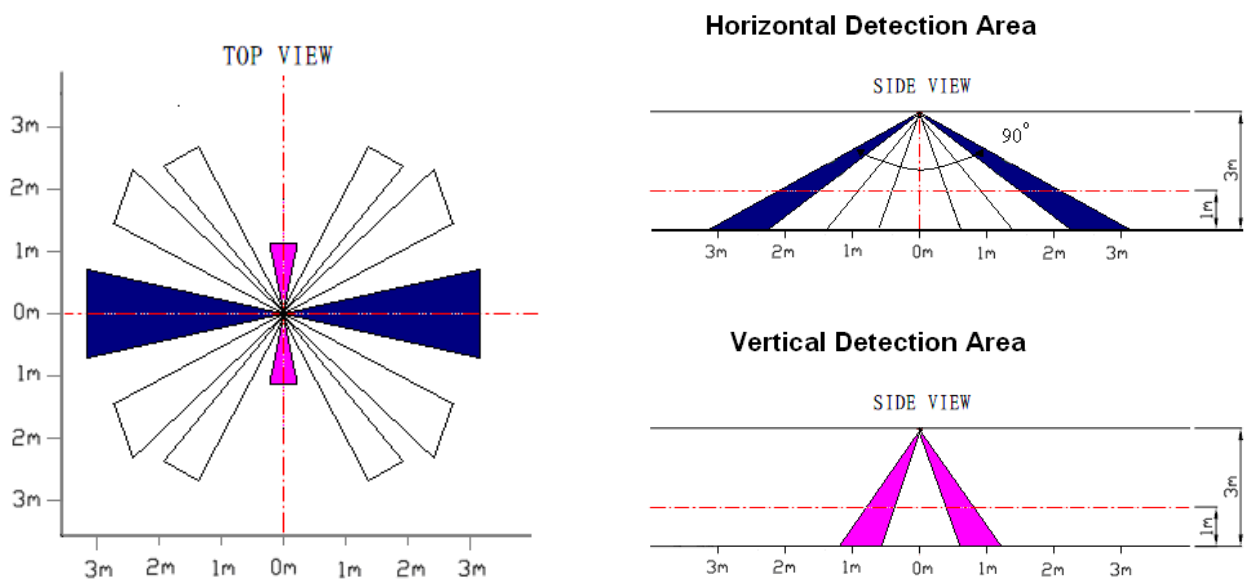
Wall mounted



Ceiling mounted



b) Module detection area



Parameter	Value	Unit	Remark
Lens angle	90	Deg	
Lens Diameter	23.5	mm	
Module Dimension	28*40*22.08	mm	
Detection Range	6	m	Module Located Height 3m @Horizontal 26°C
	3	m	Module Located Height 3m @Vertical 26°C

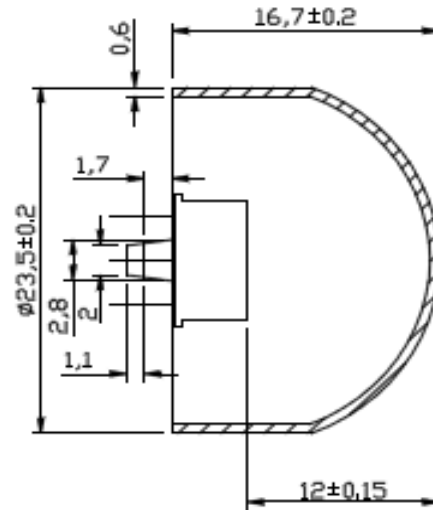
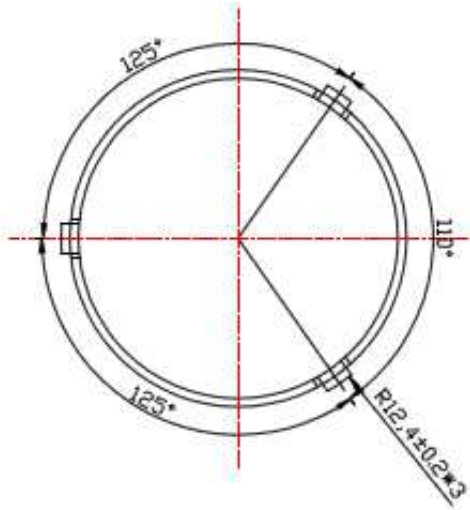
Local(Height)	2m	3m
Detection Range @Horizontal	5m	6m

*Might be shorter depending on environmental condition.

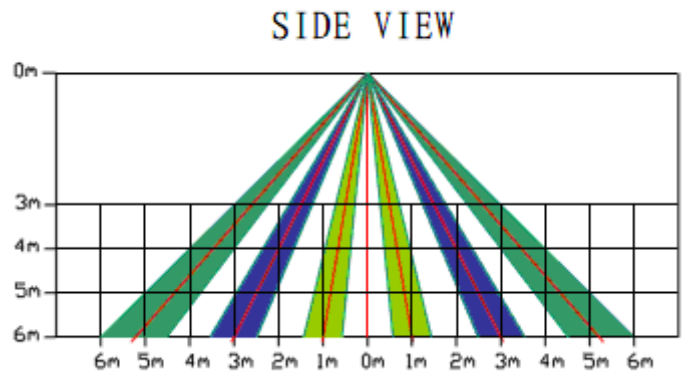
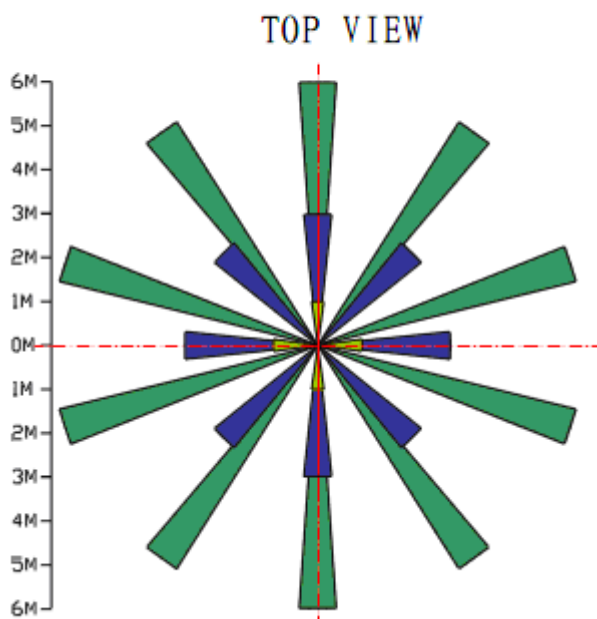
5.2. U1 Type

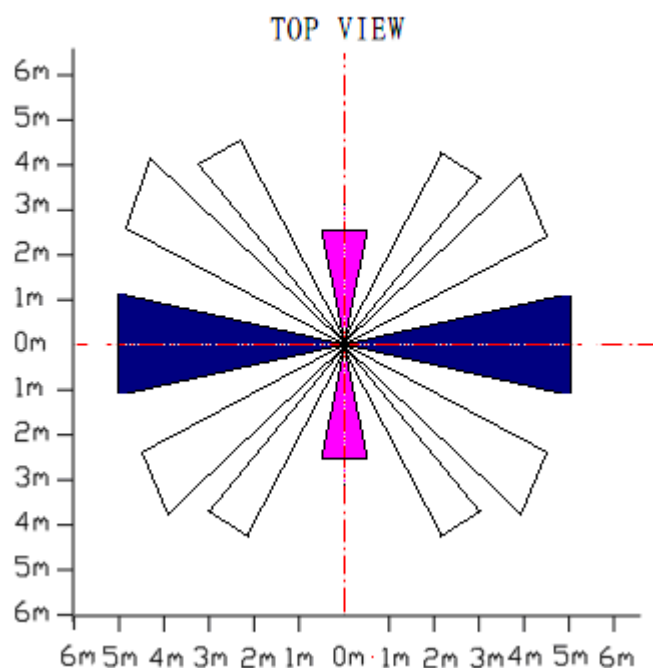
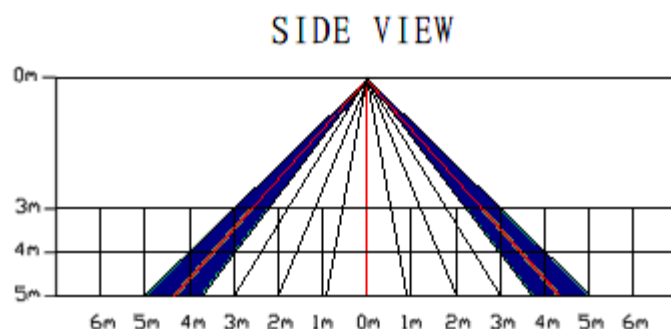
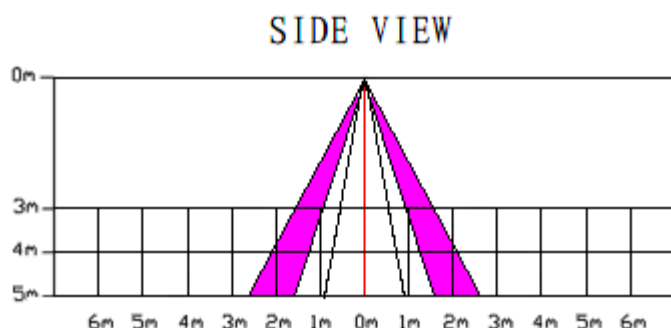


Dimension:(Unit = mm)



a) Lens Design



b) Module Detection Area

Horizontal Detection Area

Vertical Detection Area


Parameter	Value	Unit	Remark
Lens angle	80	Deg	
Lens Diameter	23.5	mm	
Module Dimension	28*40*22.5	mm	
Detection Range	8	m	Module Located Height 5m @Horizontal 26°C
	5	m	Module Located Height 5m @Vertical 26°C

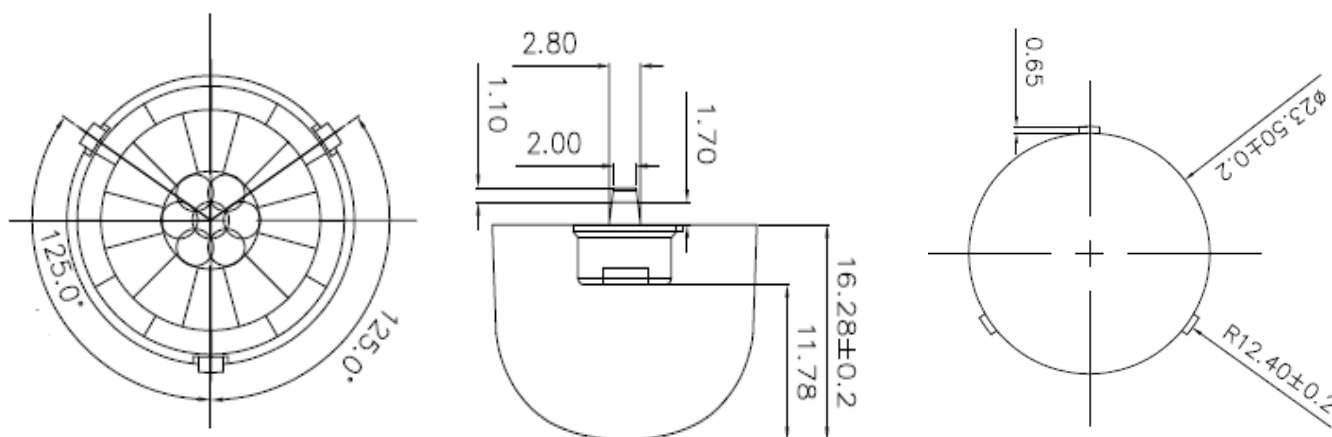
Local(Height)	3m	4m	5m
Detection Range @Horizontal	5m	6.5m	8m

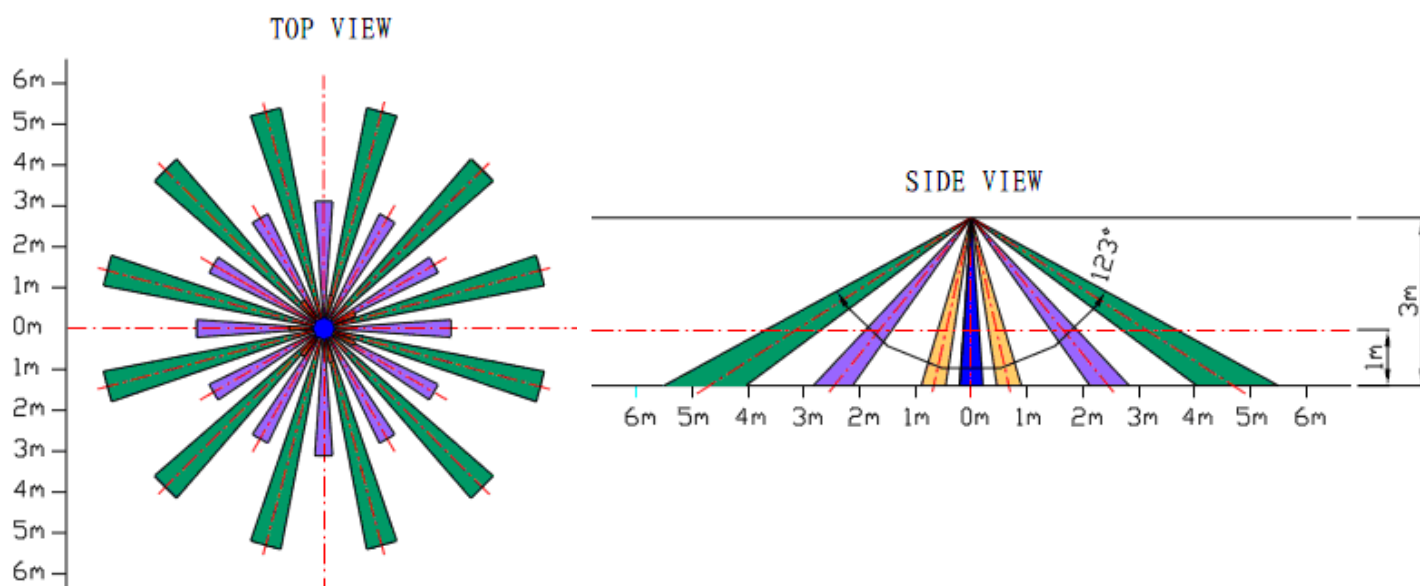
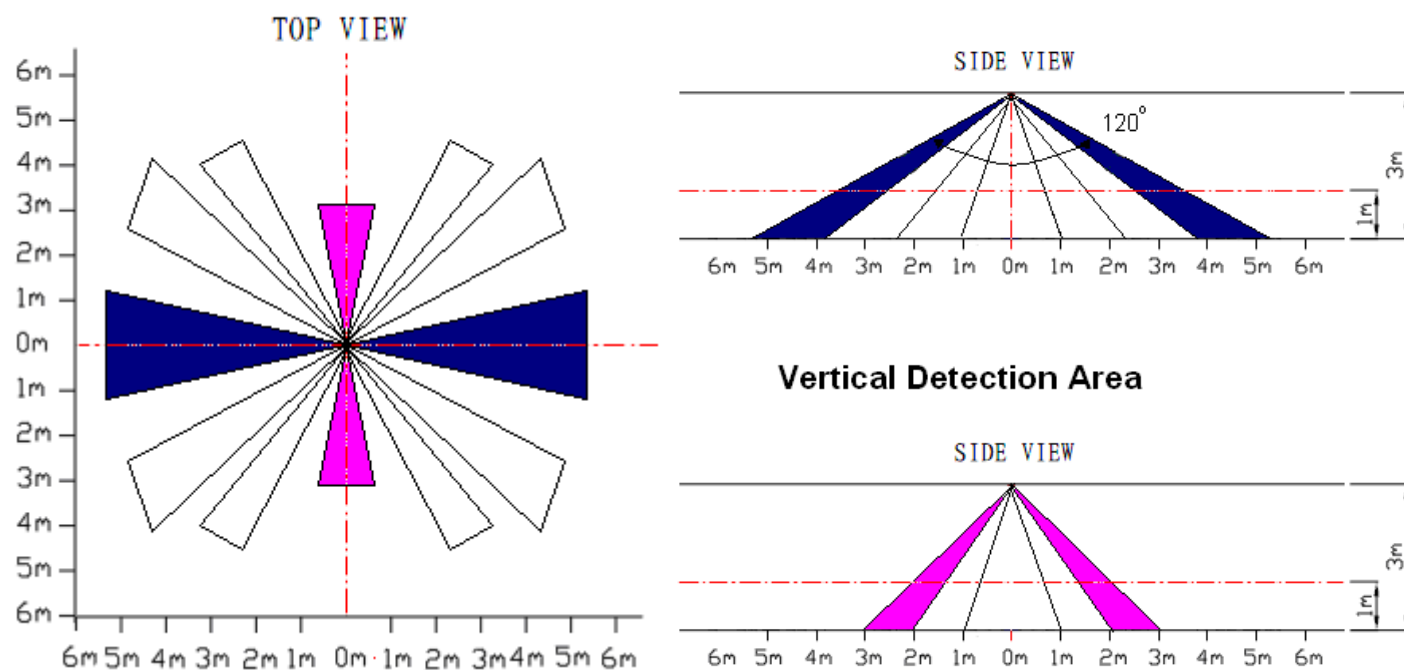
*Might be shorter depending on environmental condition.

5.3. U2 Type



Dimension:(Unit = mm)



a) Lens Design

b) Module Detection Area


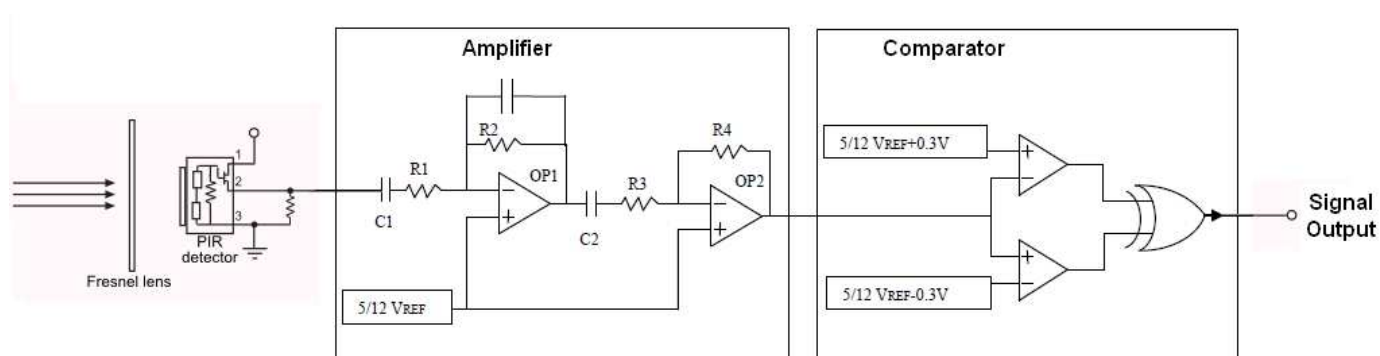
Parameter	Value	Unit	Remark
Lens angle	120	Deg	
Lens Diameter	23.5	mm	
Module Dimension	28*40*22.08	mm	
Detection Range	8	m	Module Located Height 3m @Horizontal 26°C

	5	m	Module Located Height 3m @Vertical 26°C
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Local(Height)	2m	3m
Detection Range @Horizontal	6m	8m

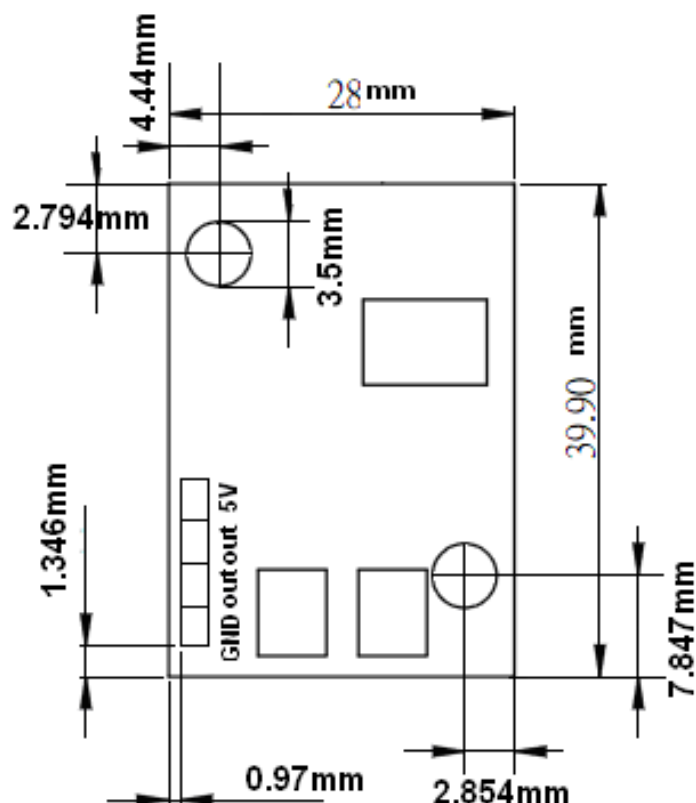
*Might be shorter depending on environmental condition.

6. PIR Module Block Diagram

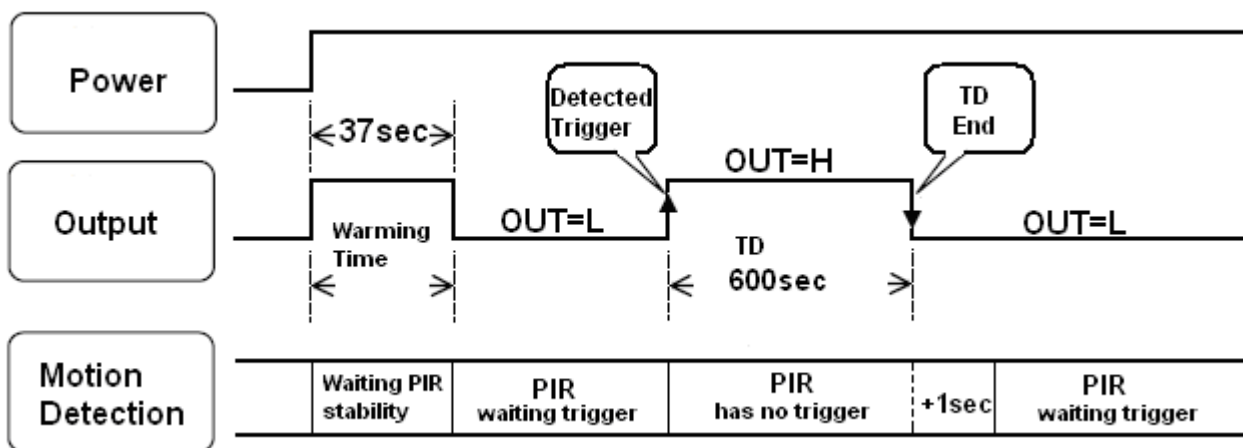


7. PIN Description

NO	PIN NAME	DESCRIPTION	Remark
1	VDD	Power supply	5V
2	O/P	Signal Output	Active High
3	O/P	Signal Output	Active High
4	GND	Ground	GND



8. Timing Chart



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