

# TECHNICAL DATASHEET

## MS-112 PIR Motion Sensor Module

### INTRODUCTION

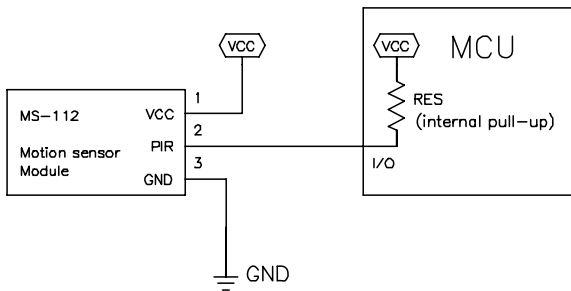
MS-112 is a miniature Passive Infrared Motion Sensor Module designed for OEM product that requires smaller lens appearance and moderate detection coverage. This PIR sensor is able to detect the movements of human body within its detection range and generate a sine wave analog signal output for OEM circuit integration.

### APPLICATIONS

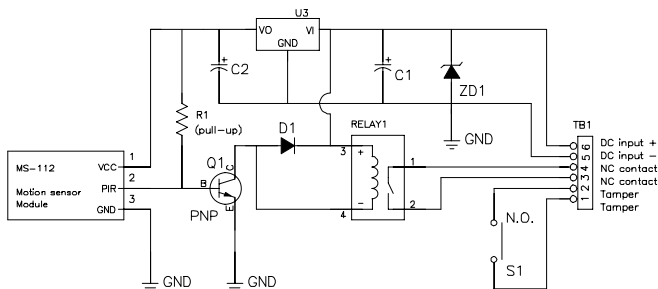
IR-TEC MS-112 Passive Infrared Motion Sensor can be integrated with the following OEM products.

- Intruder detection devices.
- Automatic lighting control devices.
- HVAC ventilation control devices.
- Human presence activated devices.
- Motion activated devices.

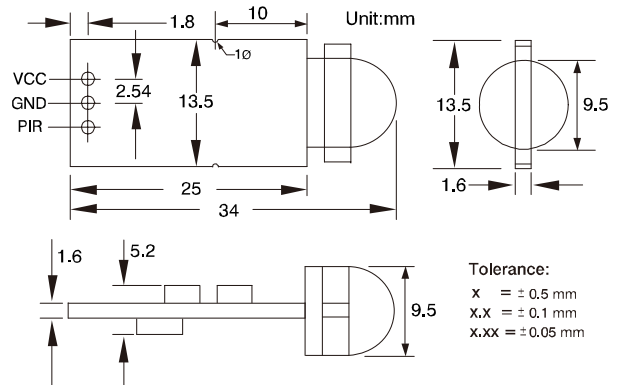
### APPLICATION DIAGRAM



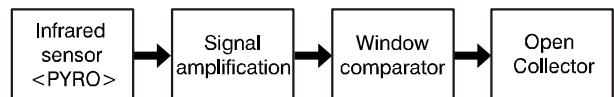
### REFERENCE CIRCUIT



### DIMENSIONS



### BLOCK DIAGRAM



### ENGINEERING NOTICES

This sensor is designed to provide moderate detection coverage and field of view. If wider coverage is needed, please contact IR-TEC for technical support.

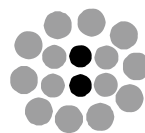
Ensure to provide clean and regulated DC power to the module to assure its detection reliability.

Ensure to provide clear view for the Fresnel lens to detect the movements.

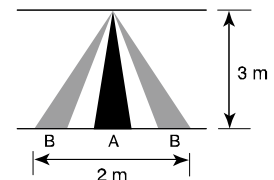
### DETECTION PATTERN

#### Ceiling Mount

Top View



Side View



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## SPECIFICATIONS

Infrared sensor	Dual element pyroelectric
Operation power (Vcc)	5±1 VDC
Current drain (I <sub>w</sub> )	<1 mA, standby
Warm-up time	Approx. 50 seconds
Signal output format	Open Collector , Active Low
Detection range @25°C	Ceiling: 2m @3m high Wall: 90°, 3m
Detection zones	32 zones
Optical lens	Fresnel lens, 9.5mm dome
Detectable speed	0.15 ~ 3 m/sec.
Op. temperature	-20°C ~ 50°C(4°F ~ 122°F)
Dimensions	34 x 13.5 x 9.5 mm

Specifications are subject to change without prior notice.