

TECHNICAL DATASHEET

MS-360LP Low Power PIR Motion Sensor Module

INTRODUCTION

IR-TEC MS-360LP is a multipurpose, low power Passive Infrared Motion Sensor Module designed for OEM applications. This sensor is able to detect the human body motion within its detection range and output a TTL open collector signal. The sensor employs a dual element pyroelectric infrared sensor and advanced electronics circuit to provide following outstanding features.

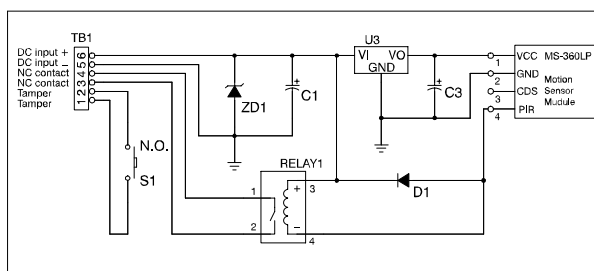
- Excellent motion detection capability.
- Wide operation power voltage range.
- 360° detection compact dome lens.
- Low operation power consumption.
- TTL open collector digital output.
- Built-in CdS photocell sensor.
- Available for ceiling/wall mount device.

APPLICATIONS

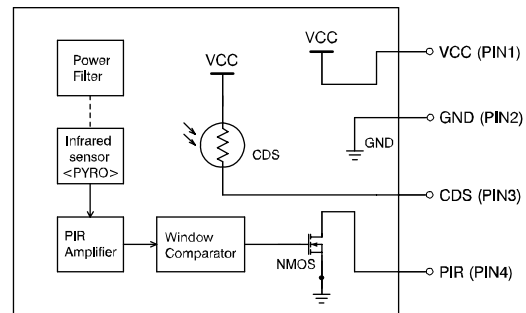
IR-TEC MS-360LP Passive Infrared Motion Sensor can be integrated with the following OEM products.

- Intrusion detectors for wireless alarms
- Wireless lighting control sensors
- HVAC ventilation control sensors
- Battery operated motion activated devices
- Portable devices requires motion sensors

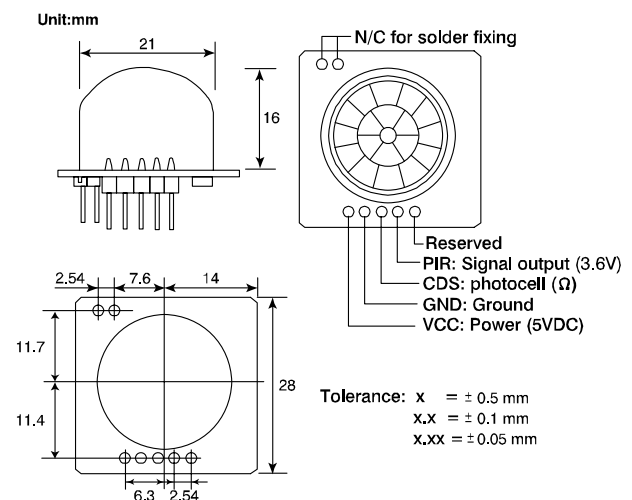
REFERENCE CIRCUIT



BLOCK DIAGRAM



DIMENSIONS



DESIGN NOTICES

If maximum detection coverage is required, please do not block any segment of dome lens. Masking the segments of the lens could block the detection respectively.

The sensor is more sensitive to the movements across (crosswise) the sensor than toward (longitudinal) it.

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

TECHNICAL DATASHEET

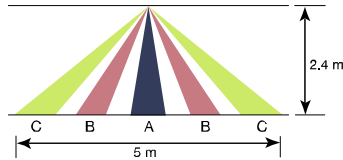
DETECTION PATTERN

Ceiling Mount

Top View

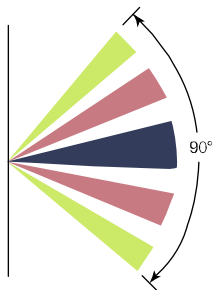


Side View

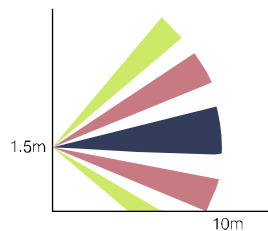


Wall Mount

Top View



Side View



SPECIFICATIONS

Infrared sensor	Dual element pyroelectric
Light sensor	CdS photocell
Operation power (Vcc)	3.6±0.5 VDC
Current drain (Iw)	10uA, standby
CdS resistance	35 ~ 70 KΩ @10 lux
CdS Gamma value	Typical 0.75, 10 ~ 100 lux
Warm-up time	Approx. 50 seconds
Signal output format	Open collector, Active Low
Signal output time	1 ~ 2.5 seconds
Detection range @25°C	Ceiling: 5m @2.4m high Wall: 90°, 10m
Mounting height	Ceiling: 1.8 ~ 3.0m (6 ~ 10ft) Wall: 1.2 ~ 1.8 m (4 ~ 6 ft)
Detection zones	38 zones
Optical lens	Fresnel lens, 21-mm dome
Detectable speed	0.15 ~ 3 m/sec.
Maximum power voltage	5 VDC
Maximum output voltage	30 VDC
Maximum output current	100 mA (sink)
Op. temperature	-20°C ~ 50°C (4°F ~ 122°F)
Dimensions	28 x 28 x 16 mm

Specifications are subject to change without prior notice.