

PIR-230-E/PIR-230-WF
PIR-231-E/PIR-231-WF

Motion, Temperature, and Humidity Sensor Module

Features

- Adjustable Time-Delay / Lux / Sensitivity (Lux/Sensitivity PIR-230 Only)
- Internal Photosensor for Smart Switch Control
- LED Indicator for PIR/Temperature Sensor
- Temperature Sensor for Measuring Room Temperature
- Suitable as either Temperature or Fire Alarm
- Relay Output Can be Used to Control Light Via the PIR/Temperature Sensor
- Suitable for loads up to 1500 W (Incandescent) and 300 W (Fluorescent)
- Fluorescent (T8) Loading Capability
- Wide range of Communication Interfaces and Protocols
- Compatible with IEEE802.11b/g/n standards
- Support infrastructure and limit-AP modes for wireless networks (PIR-230-WF/PIR-231-WF Only)
- Ceiling or Surface-Mount Design
- PIR-231-WF no CE ,FCC and UKCA Certification

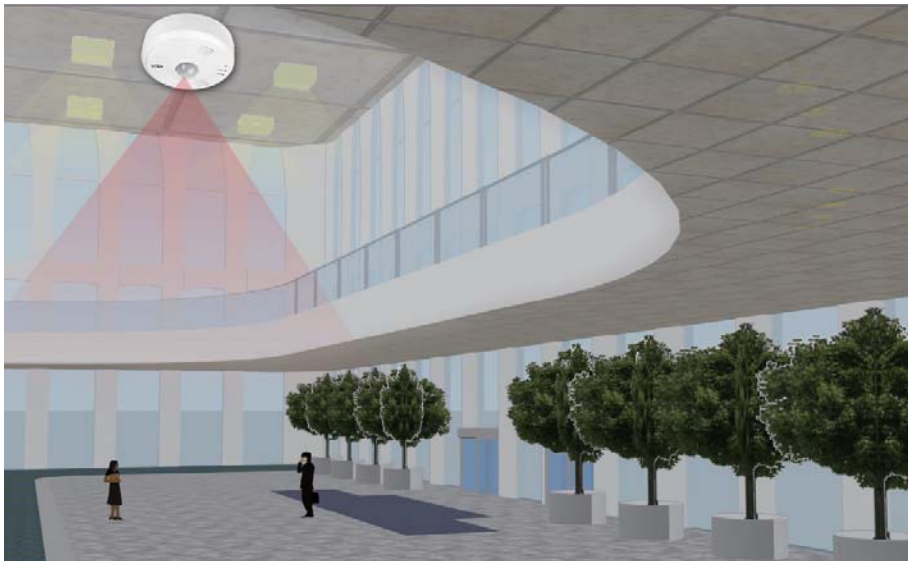
Introduction

PIR series modules have the ability to detect infrared waves generated by the human body within a diameter of approximately 8 meters, with a coverage area of 360° for indoor motion detection. The modules can be configured to automatically switch on a light if motion is detected. The modules also contain a temperature and humidity sensor for measuring indoor temperature and humidity, or it can be configured to activate a fire alarm. A wide range of interface connections can be selected to suit individual needs, including RS-485/Ethernet/Wi-Fi, provide support for the DCON and Modbus RTU/TCP protocols, and can be easily integrated into existing HMI/SCADA/central control systems. A free Utility is also included that allows configuration information and data to be displayed in a powerful chart format that can be exported to Microsoft Excel.

The screw-free quick-connect connector and the DIP and rotary switches make the modules easy to install, repair, and maintain. The casing of each module is made from UL94-V2 rated fireproof material, and the white minimalist exterior design ensures that it is easy to match with interior decoration.

Applications

- Lighting and exhaust fans in public toilets
- Common lighting in staircases
- Lighting in parking areas
- Garden lights
- Lighting for changing rooms in shops
- Corridor lighting, and many more situations





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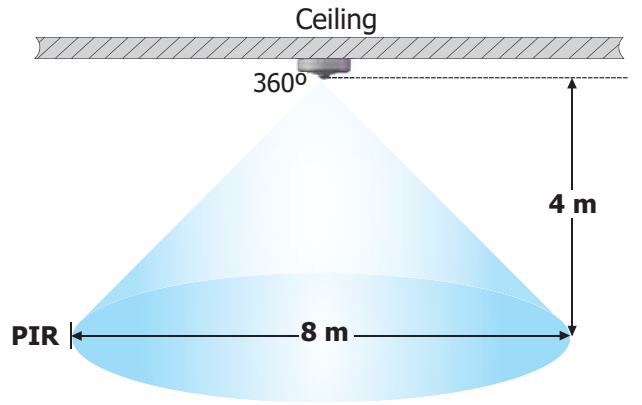
Specifications

Model	PIR-230-E	PIR-230-WF	PIR-231-E	PIR-231-WF
EMS Protection				
EFT (IEC 61000-4-4)	±4 kV for Power Line			
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal, ±8 kV Air for Random Point			
LED Indicators				
Status	Yes,1 as Power/Communication Indicator. 1 as Alarm Indicator.			
PIR				
Detection Height	4 m Max.		10 m Max.	
Detection Field of View	360º; 8 m Diameter Max.			
Lux Control Level	Hardware: 2 modes (Dawn and dust) / Software: 5-step		-	
Delay Time	Hardware: 8-step Switch-selectable (seconds): 6, 16, 33, 66, 131, 262, 524, 1049 Software: 16-step (seconds): 2, 4, 6, 8, 16, 33, 49, 66, 131, 262, 393, 524, 1049, 2097, 3146, 4194			
PIR Response Time	1 second			
Temperature Measurement				
Fire Alarm	-40 ~ +120°C			
Range	65°C (Programmable)			
Resolution	0.01°C			
Accuracy	±0.5°C (at 0 to 60°C)			
Humidity Measurement				
Range	0 to 100% RH			
Resolution	0.01% RH			
Accuracy	±5% RH			
Wi-Fi				
Transmission Distance (LoS)	-	50 m (LOS)	-	50 m (LOS)
Standard Supported	-	Wi-Fi: IEEE 802.11 b/g/n	-	Wi-Fi: IEEE 802.11 b/g/n
Mode	-	Infrastructure/Limited AP	-	Infrastructure/Limited AP
Encryption	-	WEP, WPA ,WPA2	-	WEP, WPA ,WPA2
Digital Input				
Channels	2			
Type	Wet Contact			
On Voltage Level	70 to 220 VAC			
Off Voltage Level	20 VAC Max.			
Input Impedance	68 KΩ, 1 W			
Relay Output				
Channels	1			
Type	Power Relay, Form C			
Contact Rating	NO: 10 A @ 250 VAC / NC: 6 A @ 250 VAC			
Number of Lighting Fixture	Incandescent Bulb: 1500 W Max.; Fluorescent Lamp: 300 W Max.			
COM Ports				
Ports	RS-485 X 1 and Ethernet/PoE X1			
Baud Rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200			
Protocol	DCON, Modbus RTU, Modbus TCP, MQTT			
Node Address	Hardware: 160 to 191 / Software: 1 to 255			
Power				
Reverse Polarity Protection	Yes			
Input Range	18 to 48 VDC, PoE			
Consumption	2 W	3 W	2 W	3 W
Mechanical				
Dimensions (mm)	Ø150 x 53 (Ø x H)			
Installation	Ceiling /surface mounted			
Ingress Protection Rating	IP20			
Environment				
Operating Temperature	0 to +35°C			
Storage Temperature	-30 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

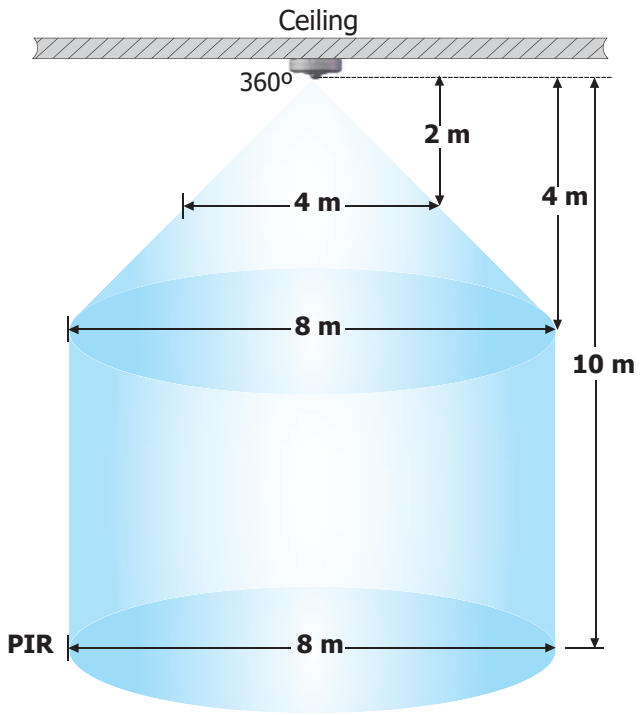
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Operating Distance

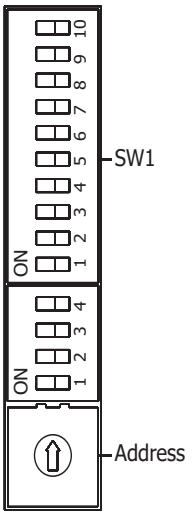
PIR-230 Series



PIR-231 Series



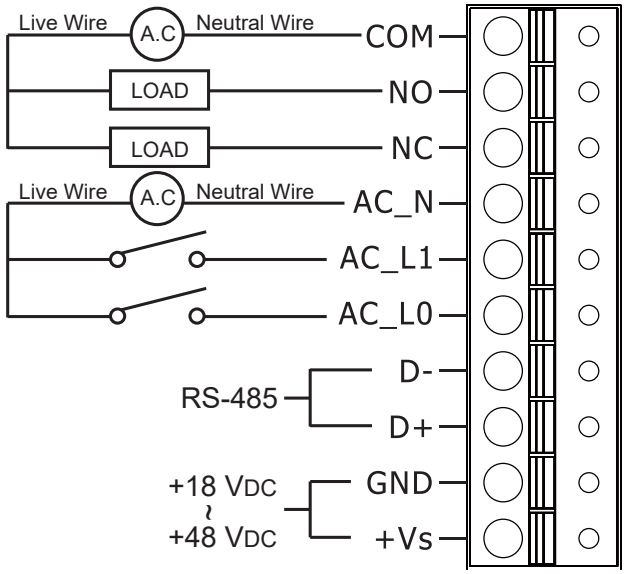
DIP Switch Settings



SW1	ON	OFF
1	DCON	Modbus
2	SW Config.	HW Config.
3	High Node	Low Node
4	INIT	Run
5*	Dawn	Dust
6*	Sensitivity	
7*		
8	ON Time Control	
9		
10		

∗ (5, 6, 7 for PIR-230 Series Only)

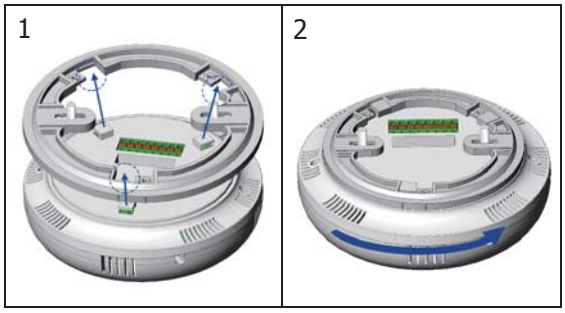
Pin Assignments



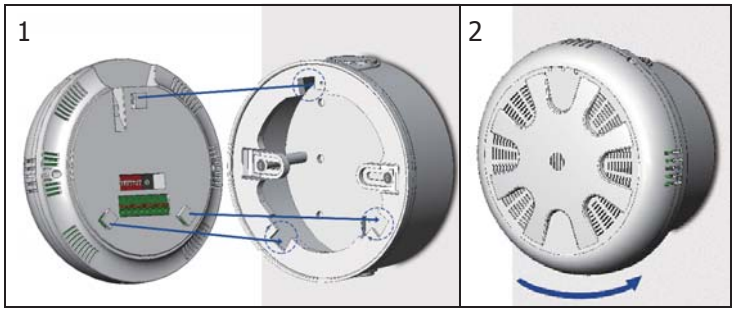
Mounting



Ceiling Mounting



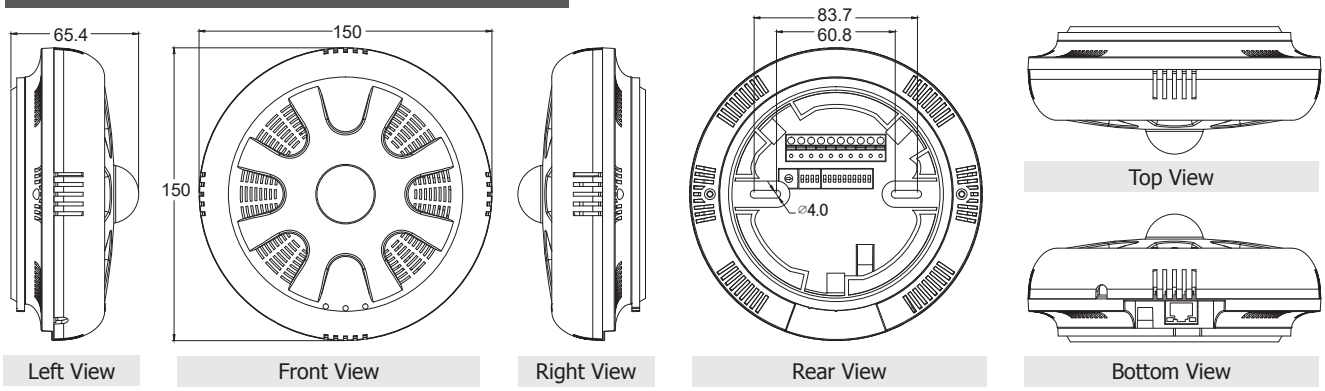
Wall Mounting (+ External Wall Box EWB-C150)



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Dimensions (Units: mm)

PIR-230/PIR-231 Series



Left View | Front View | Right View | Rear View | Top View | Bottom View

Ordering Information

PIR-230-E CR	PIR Motion Sensor, Temperature and Humidity Sensor Module (Ethernet) (RoHS)
PIR-230-WF CR	PIR Motion Sensor, Temperature and Humidity Sensor Module (WiFi) (RoHS)(Asia Only)
PIR-231-E CR	PIR Motion Sensor, Temperature and Humidity Sensor Module (Ethernet) (RoHS)
PIR-231-WF CR	PIR Motion Sensor, Temperature and Humidity Sensor Module (WiFi) (RoHS)(Asia Only)

Accessories

EWB-C150 	External Wall Box for PIR-200 series
CA-RJ45-04 	RJ45 Cable, Male-Female, 30cm

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