


	PART No.	DESCRIPTION	SPECIFICATION
	<b>WOC-3801</b> Passive Infrared Ceiling Mount, Interior Photo sensor, IR set	<ul style="list-style-type: none"> <li>The WOC-3801 is a ceiling mounted PIR occupancy sensor that connects directly to the 2-conductor data signal.</li> <li>Use indoors only.</li> <li>The sensor is ideal for 8 to 12 foot ceilings.</li> <li>Maximum height is 16 feet at which only walking motion can be detected.</li> <li>The occupancy sensor is set to signal either an output address or a group code.</li> <li>To adjust the sensor, use the WIR-3110 IR Setting Unit.</li> </ul>	<b>Power</b> <ul style="list-style-type: none"> <li>Signal draw: 3mA.</li> </ul>
			<b>Communication</b> <ul style="list-style-type: none"> <li>Dialog Data Signal is the only connection required.</li> </ul> <b>Adjustments</b> <ul style="list-style-type: none"> <li>Adjustable no-occupancy timer</li> <li>Adjustable sensitivity.</li> <li>Tilt &amp; Swivel eyeball sensor to align PIR zones with doorways if needed.</li> <li>Sensor functions such as no-occupancy timer can be changed with a time schedule in the WLC-3150.</li> <li>The WIR-3110 IR Setting Unit is used to set the occupancy sensor's target output address or group code.</li> </ul>

### WOC-3801 Passive Infrared Occupancy Sensor

Install unit in ceiling.



#### PIR Lens

PIR lens can be rotated & swiveled to better align PIR detection zones.

#### Data Signal

Sensor connects directly to the Dialog data signal. No other connections required.

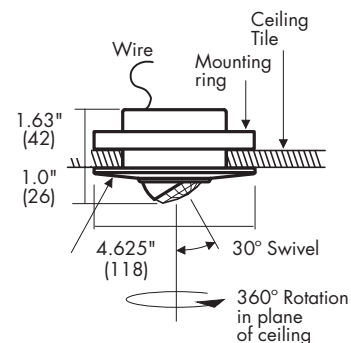
#### IR Link

A infrared signal is used to read and write the address and code information of the WOC-3801.

#### Environment

- Stationary, non-vibrating, non-corrosive atmosphere & non-condensing humidity.
- Ambient temp:  
+5° to +120° F (-15° C to +50° C).

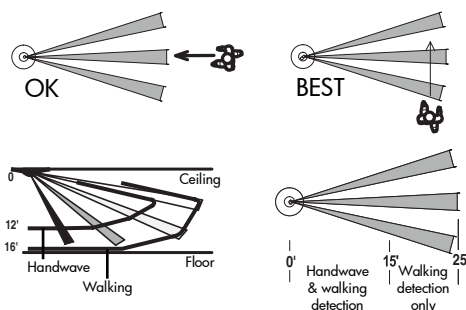
#### DIMENSIONS & MOUNTING



## INSTALLATION

### Method of Detection - PIR

- WOC-3801 sensor uses Passive Infra Red (PIR) technology. All objects emit a specific infra-red frequency that is dependent upon the temperature of the object. PIR occupancy sensors are optical devices that are tuned to detect the infra-red frequency emitted from people (98°F).
- It is the movement of the infra-red source (walking or a handwave) that is sensed by the WOC-3801. The sensor accomplishes this by having several small lenses that each focus a zone onto a sensing element. As the person travels in to and out of a zone, the amount of infra-red light focused on the element changes. This is interpreted as motion.
- Movements across a focus sensing zone cause a stronger occupancy signal than movements parallel to a sensing zone. When locating PIR occupancy sensors, try to maximize the probability of movements across the sensing pattern.



- The amount of infra-red light focused on the sensing element is greater from objects that are close than from objects that are distant.
- Only at close range (less than 15') is handwave motion sensed. At greater distances (15' to 25') only walking motion is sensed.
- The WOC-3801 is designed for ceilings that are from 8 to 16 feet high. Handwave motion is only possible for ceilings 12 or less.
- Walking motion can be sensed from 16' ceilings. Do not use the WOC-3801 sensor on ceilings higher than 16'.

### Solid Objects

- Detection cannot be made through solid objects (partitions or bookshelves). Position sensor(s) so that there are no obstructions.

### Forced Air Vents

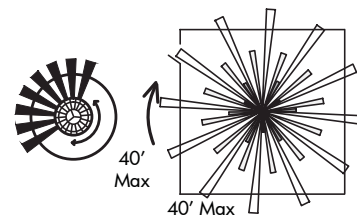
- Locate sensor away from forced air vents (4' or more). Large amounts of hot, moving air can be sensed which causes false tripping. If this problem is occurring, try reducing the sensitivity or use the tilt and swivel eyeball to aim the lens away from air vents.

### Sensing Zone Alignment

- The WOC-3801 sensor has alignment features to help optimize the performance of the sensor for your application.

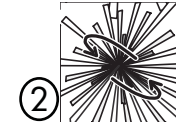
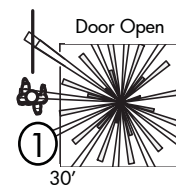
#### Rotation

- The rotation feature permits the detection zones to be precisely aligned with entrance ways. This will ensure immediate detection upon entry.

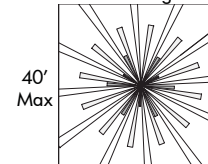


#### Tilt

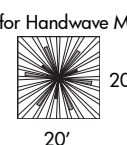
- If detection is occurring from traffic exterior to the room (1), use tilt feature to aim detection zone at the bottom of the doorway (2).



Size for Walking Motion

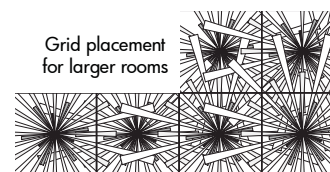


Size for Handwave Motion



### Placement of Multiple Sensors

- In rooms such as classrooms (40'x40' or less) one sensor is often sufficient. Handwave motion is detected around the perimeter.
- In larger spaces, determine if the detection requirement is for walking or handwave motion. Consider traffic patterns and/or where occupants will be sitting when laying out the sensors.
- For open areas such as a cafeteria or open office plan, position the sensors in a grid. Modify the grid if there are partitions or obstructions.



- For hallway applications, it is recommended that sensors be spaced no more than 30' apart. Since most traffic travels parallel to the sensing zones instead of across them, the range of detection will be decreased.

Placement for Hallway Applications

