

# The Benefits of MICROWAVE TECHNOLOGY MOTION SENSORS



Microwave Technology sensors offer advantages over Infrared Technology sensors for outdoor and warehouse applications because they are NOT affected by ambient temperatures above 90°F (32°C). Infrared sensors read temperature signatures as people cross activation zones near the sensor. When the ambient temperature is close to human body temperature, the sensor does not see motion.

Many outdoor lighting projects in warmer climates require controls to work properly above 90°F (32°C). Warehouses without air conditioning also experience these high operating temperatures.



**High Bay Microwave Sensor**  
High Bay Industrial Lighting



**Internal Microwave Sensor**  
Outdoor Area, Wall, Garage &  
Decorative Lighting

## MICROWAVE SENSORS USE DOPPLER HIGH FREQUENCY SIGNALS

Microwave Technology sensors work on the principle of Doppler Effect, much like the systems that track weather patterns. The sensor sends out a 5.8 GHz high-frequency signal and then senses changes in the bounced back echo signal to detect motion.

## CONTROL CAPABILITIES FOR MICROWAVE SENSORS

Microwave Sensors are programmable for a variety of control scenarios for various mounting heights to save energy and provide a safe environment.

### ON-OFF Control

Sensor is set to turn LIGHT OFF when it sees no motion for a selectable time period. This is known as "Vacant Hold Time". LIGHT turns back ON the next time motion is detected.

### ON-VACANT-to-DIM Control

Sensor is set to DIM LIGHT when it sees no motion for a selectable time period. This is known as "Vacant Hold Time". LIGHT is dimmed after vacant and turns back ON to FULL the next time motion is detected. Light never turns OFF for security reasons.

### ON-VACANT-to-DIM then OFF Control

Sensor is set to DIM LIGHT when it sees no motion for a selectable time period. This is known as "Vacant Hold Time". LIGHT is dimmed after vacant then turns OFF after a selectable "Stand By Period". LIGHT turns on to FULL the next time motion is detected.

The Sensor has an internal photocell control that can be programmed to block the motion control ON when natural light is present. The system also functions with master photocell or timeclock ON/OFF controls on the incoming fixture supply circuit.