

# Sensor Switch - Features and Benefits

## Description



- **Passive Dual Technology** occupancy detection using **PIR** & patented **Microphonics™**
- Line voltage sensors utilise a reversible wiring scheme of two identical Orange wires for connection to line and load. This patented feature ensures that the sensor cannot be wired backwards - a condition which causes other brands' sensors to be damaged.
- Sensors are set to a default 10 minute time delay, while other brands use 15 minutes. This provides for greater energy savings and underscores our faith in our detection abilities.
- All device settings are digitally programmed via a series of simple push-button commands done at the unit. There are no analogue dials or pots, dip switches, or tools required.
- Low voltage sensors (both PIR and Passive Dual Technology) draw very low current, enabling 14+ to be connected to one power pack (compared to <5 of other brands).
- Photocells have an Automatic set-point calibration mode that can be run at any time of the day and in any daylight conditions.
- Relay contact protection provides extended relay life (tested to over 400,000 cycles).

### MICROPHONICS™

### Benefits

• **What is Microphonics Occupancy Detection?**

Patented by Sensor Switch, Microphonics detection technology uses a microphone inside of the sensor to hear sounds indicating occupancy. This technology was designed as a secondary detection method to **Passive Infrared (PIR)** for rooms with obstructions, such as bathrooms with stalls or open office cubicle areas. Referred to as having **Passive Dual Technology (PDT)**, these sensors require occupant motion to be initially seen by the PIR to turn the lights on, after which occupants can either be seen (via PIR) or heard (via Microphonics) for the lights to remain on.

• **How Is Microphonics Different Than Ultrasonic Technology?**

Microphonics detection is superior to alternatively used ultrasonic technology in that it provides better and more reliable occupancy detection performance, requires less power, and is acoustically passive. Microphonics transmits no sound waves into a space, thus eliminating all potential for interference.

• **What Happens If Microphonics Is Used In A Noisy Environment?**

Microphonics is tuned to only detect leading edge noises typical of human activity, (e.g., talking, typing, rustling papers, etc.) and not building noises (e.g., HVAC rumbles or air currents). Additionally, automatic gain control (AGC) is utilised to dynamically self-adapt a sensor to its environment by filtering out constant background noise. Finally, sensors with Microphonics use advanced digital acoustic filtering. This prevents the prolonged presence of varying noises without any PIR events, such as leaving a television or radio on, from keeping the lights on. It also filters out sounds with periodicity, such as consistent ticks from a clock.