



Cadence Acoustic Technology

Description:

The acoustic technology used in Cadence dual technology (DT) occupancy sensors utilizes a microphone within the sensor to listen for sounds that indicate "occupancy". Acoustic technology is especially useful in rooms with obstructions such as bathrooms with stalls or open office environments with cubicle partitions. The technology also minimizes false tripping by distinguishing sounds such as talking, typing, and other sounds made by human activity from ambient noise.

Additionally, Cadence's acoustic technology uses advanced digital acoustic filtering to filter building and environmental noises (e.g., ticking clock, consistent airflow, etc). Additional layers of advanced technology are used to prevent the lights from staying on indefinitely due to prolonged non-occupant sounds (e.g., radio left on, or noise from an adjacent area). The sensor will adapt its detection algorithm to ignore these noises until the timeout expires, allowing the lights to turn off. Once PIR motion is detected, the sensor returns to its normal state.

The hardware configuration provided in PIR/Acoustic DT sensors have also been designed with security in mind. The "microphones" do not have the ability to distinguish words and/or recognize or record speech. The microphone is simply an audio level detector that uses audio levels and frequency patterns to filter noises not caused by human occupants.

PROJECT _____

LOCATION _____



Cadence acoustic technology features and benefits:

- Completely passive with no sound waves emitted into a space, therefore eliminating the potential for interference with other systems or devices.
- Ideal for spaces with obstructions or partitions and for spaces with sedentary occupants.
- Cadence DT sensors are paired with PIR technology to ensure a complete detection solution.
- Unlike "PIR/ultrasonic" sensors, PIR/acoustic sensors consume very little power, allowing more sensors to be controlled per individual power pack.
- PIR technology initially turns the lights on, but both PIR and acoustic technology operate together to keep lights on. PIR technology must first be triggered before the microphone is engaged.
- After a DT sensor times out, acoustic detection remains enabled for 15 seconds, giving an occupant a "grace period" to re-engage the lights via sound even if the occupant can't be "seen" by the sensor's PIR technology.