

EEM2. – Install Occupancy Sensors

Although <client> has installed occupancy sensors in offices and non-public areas of the first floor, lighting on the second floor is still manually switched; the annual lighting energy in the nonpublic areas of the second floor can be reduced by approximately thirty percent each year by using occupancy sensors in these areas.

There are two types of occupancy sensor technologies, passive infra-red, and ultrasonic. Infrared sensors are triggered by the movement of a heat source, like a person walking in, within a room or space space. The sensor must have a direct line of sight to occupants in order to detect motion in its line of sight. On the other hand, ultrasonic sensors emit high-frequency waves and are triggered by disturbances in the returning signals. Ultrasonic sensors do not need a direct line of sight, however, they often receive false triggers from wind-blown curtains or papers.

As the name implies, dual-technology occupancy sensors combine both infrared and ultrasonic technologies in a single sensor. This creates a sensor with the accuracy of an infrared sensor and the sensitivity of an ultrasonic sensor, and, hopefully, none of the problems associated with either of those.

EEM Implementation

Install dual-technology occupancy sensors in meeting rooms and offices on the second floor. See Appendix A for full facility recommendations on occupancy sensor placement.

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