# TECHNICAL INFORMATION

A name you can trust - Hubbell

Founded in 1888 by Harvey Hubbell II, Hubbell Inc. has been a long-time contributor to new product design and manufacturing innovation. In 1896, Hubbell invented the world's first lighting control device, the pull chain switch.

Over 100+ years later, Hubbell Building Automation, headquartered in Austin, Texas, continues this tradition of innovation with the development of a vast array of energy saving lighting controls.

Innovative occupancy sensors

Hubbell Building Automation sets the standard. Few people realise that traditional occupancy sensors need adjustment throughout the year when seasons change, airflow is modified and furniture layout or occupancy patterns change. If sensors are not constantly monitored and adjusted, your energy savings objectives will not be met. HBA realised this and was the first to introduce the industry's first self-adapting sensor. HBA's patented IntelliDAPT® technology is the key to maximising energy savings – from open offices to the manufacturing floor. Digital microprocessor technology makes all sensor adjustment decisions. Smart software monitors the controlled area, and makes sensitivity and timer adjustments automatically. Occupancy sensors with IntelliDAPT provide maintenance free "Install and Forget" operation.

NO-ONE PRESENT. LIGHTS OFF.

PERSON ENTERS ROOM. LIGHTS SWITCH ON.
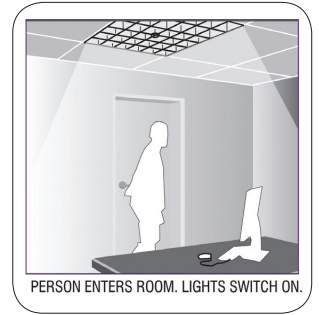
Smart technology for today's needs

IntelliDAPT Technology is an HBA patented innovation that delivers benefits to both building owners and occupants. The building owner achieves reduced energy costs, fewer adjustments and less maintenance while the building occupant experiences fewer false on and offs and disturbances. IntelliDAPT Technology occupancy sensors use microprocessors that make all the decisions for setting adjustments. Internal software constantly monitors the controlled area and automatically adjusts the sensitivity and timer based on environmental history. This means that instead of manually adjusting the sensor for seasonal changes, modified airflow, furniture layout or occupancy pattern changes, the sensor automatically adjusts itself. These automatic adjustments eliminate the need for multiple manual adjustments by maintenance personnel or outside contractors. HBA offers IntelliDAPT Technology throughout its product offering – wall switches, ceiling and wall mount sensors – in conjunction with dual technology, ultrasonic and passive infrared products.

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How to select the right technology for the proper application

Passive infrared (PIR) technology senses occupancy by detecting the movement of heat emitted from the human body against the background space. Unlike US technology, PIR sensors require an unobstructed line-of-sight for detection. These sensors use a segmented lens which divides the coverage area into zones. Movement between zones is then interpreted as occupancy. PIR sensors are ideal for detecting major motion (e.g. walking) and they work best in small, enclosed spaces with high levels of occupant movement.

Benefits:

- Long range detection
- Reliable triggering
- Cost efficient

Passive Infrared (PIR)

Ultrasonic (US) technology senses occupancy by bouncing sound waves (32kHz or 45kHz) off of objects and detecting a frequency shift between the emitted and reflected sound waves. Movement by a person or object within a space causes a shift in frequency which the sensor interprets as occupancy. While US occupancy sensors have a limited range, they are excellent at detecting even minor motion such as typing and filing and they do not require an unobstructed line-of-sight. This makes US technology sensors ideal for an application like an office with cubicles or a restroom with stalls.

Benefits:

- Detects small motion
- Sees around obstructions
- Cost efficient

Ultrasonic (US)

Dual technology occupancy sensors combine both passive infrared (PIR) and ultrasonic (US) technologies for maximum reliability. Because US and PIR need to both detect occupancy to turn lighting on, dual technology sensors minimise the risk of lights coming on when the space is unoccupied - false triggering. Continued detection by only one technology then keeps lighting on as necessary. Dual technology sensors offer the best performance for most applications.

Benefits:

- Track occupancy on with two sensing methods
- Minimises false triggering
- Consistent, reliable operation

Dual Technology

Product Image

"Quick To Install" says it all. Capable of interconnecting a sensor and power pack in a fraction of the time. The QTI connector eliminates low-voltage wiring nuts to ensure error-free connections. The QTI system saves time and money, a 25% savings in labor costs alone, and the elimination of call backs and costly troubleshooting. The QTI system is available on most Hubbell Building Automation low-voltage sensors and power packs.

Key Features

- Dramatically reduces installation cost
- Easy to install; fast and efficient
- Completely removable and reusable if necessary
- Eliminates need for large spools of cable for installation of plenum cable runs
- Reduces possibility of transposing wires as in conventional splicing wire terminations
- Standard features on OMNIUS, OMNIR, LODT and UVPP.