

Watt Stopper Products Used:

UT-305 and W Series Ultrasonic Occupancy Sensors, DT-305 Dual Technology Occupancy Sensors



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CASE STU D

Watt Stopper Contributes to Energy **Efficiency at Dubai International Airport**

Terminal 3

Dubai International Airport, UAE

Dubai International Airport in October 2008 welcomed travelers to its dramatic and energy efficient new airplane-wing-shaped Terminal 3.

To meet energy saving goals, project

engineers incorporated over 800 occupancy sensors from Watt Stopper/ Legrand to control lighting in close to 1 million square feet throughout the terminal.

This project was underway before new local initiatives requiring sustainable design were adopted, but it was

designed with resource conservation in mind. Watt Stopper/Legrand personnel helped engineers choose occupancy-based lighting controls to maximize energy savings in spaces with different characteristics and uses. Watt Stopper products were

selected because of their international reputation for excellence and reliability

Occupancy sensor selection

Both ultrasonic and dual technology ceiling sensors

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were used in public and private areas. Ultrasonic occupancy sensors emit ultrasonic waves throughout a space and use the Doppler principle to analyze shifts in the returning waves in order to detect occupancy. Dual technology sensors use both ultrasonic and traditional passive infrared (PIR) technologies to detect occupancy through both movement of heat

and returning sound waves.

Project engineers specified Watt Stopper UT and W Series ultrasonic sensors for partitioned spaces, including open office areas, storage room and



Ultrasonic sensor were chosen to control lighting in partitioned restrooms.

Project Team

Owner: Dubai Civil Aviation

Project Design Consultant: Aéroports de Paris International

Design Group Consultant: Dar Al-Handasah Consultants

MEP Contractor: THERMO LLC restrooms, as well as enclosed corridors. They are extremely pleased with the product performance and have adopted the technology for use in other buildings.

Watt Stopper DT dual technology sensors were also used. These sensors are perfect for hard to detect areas, including conference rooms and large private offices, as they pick up both large and small movements.

Integrating sensors into the design

The controlled airport lighting includes a variety of energy efficient fluorescent sources with electronic ballasts. Engineers specified low voltage sensors for all applications in order to interface the devices with the airport's building management system. An energy analysis, conducted during the planning phases of the project, illustrated how the sensors would help the project achieve its sustainable construction goals.

This \$4.5 billion project phase is just part of an ongoing expansion to nearly triple airport capacity by 2012 to accommodate 60 million passengers.

Watt Stopper's Dubai presence

To support sustainable construction in the United Arab Emirates, and throughout the Gulf region, Legrand, Watt Stopper's parent company, maintains a stocking office in Dubai. Local staffers provide design assistance as well as technical support for Legrand family products.

