

Wireless Motion | Lux Sensor

Energy Harvesting Wireless Occupancy Sensor

As part of Automated Logic's wireless sensing line, wireless motion/lux sensors are used to detect motion and light in a space. Because there are no wires to run, they can be added to your building easily.

Wireless sensors work in conjunction with a wireless adapter, which enables wireless communication between the sensors and a WebCTRL® BACnet controller in the space. By sensing motion and lighting levels wirelessly, our WebCTRL controllers can make smart decisions to optimize the control of heating, cooling, and lighting systems in the building, providing optimum occupant comfort and energy efficiency.

Ideal applications for the wireless motion/lux sensor include occupancy-based lighting and temperature control, as well as indoor daylight harvesting.



Key Features and Benefits

Easy to Install

- Communicates on the Rnet sensor network, via a wireless adapter
- Can be installed up to 60' away from wireless adapter
- Enables wireless sensing on new or retrofit projects
- Wireless software included for quick & easy sensor pairing
- Available in different frequencies for different parts of the world

Sensing Capabilities

- Passive infrared motion sensor ensures reliable detection of occupant presence for occupancy-based control
- Integrated light sensor for daylight harvesting strategies

Automated Logic Wireless System Benefits

- Wireless and battery-less space sensors (assuming sufficient lighting exists in space)
- Maintenance-free capacitors power the sensors during unlit periods for up to 4-days without a light source
- Easy and cost-effective installation
- No repeaters or amplifiers required for zone-based applications
- Sensors transmit on COV (change of value), to save energy
- Integrates seamlessly with WebCTRL alarming for proactive monitoring of important sensor conditions, including:
 - Sensor backup capacitor charge
 - Sensor signal strength
 - Sensor offline
- Can co-exist on Rnet with Automated Logic's wired ZS sensors
 - Single-program controllers can support a total of 5 sensors
 - Multi-program controllers can support up to 15 sensors

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This wireless, self-powered, passive infrared (PIR) sensor is the perfect solution for occupancy-based lighting and temperature control.



Wireless adapter

The wireless adapter enables communication between the wireless sensors and any WebCTRL controller, allowing it to optimize control of the HVAC and lighting systems.





WebCTRL® controller

Provides optimized control of HVAC and lighting equipment in the space based on sensed values.



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Specifications

Motion effective detection range	39 ft (12 m) maximum
Motion effective detection angle (horizontal & vertical)	102° x 92°
Light sensor measuring range	0 to 1020 lux
Power supply	Solar harvesting, internal energy storage
Supplemental battery	A 1/2 AA 3.6 V 1200 mA battery is included to supplement power during commissioning and for low-light conditions
Protocol	Customized version of EnOcean®
Radio frequency	902 MHz (North America)
Transmission range	Typically, 60 ft (18.29 m) maximum from wireless adapter, assuming sensor and wireless adapter are separated by no more than 1 drop ceiling or 2 walls (drywall with metal studs).
Transmission interval	Configurable in SensorBuilder. The sensor transmits: <ul style="list-style-type: none"> • On change of sensed value, and • At a regular interval (heartbeat). The default is every 900 seconds (15 minutes). Set the heartbeat to 0 to transmit only when value changes
Change of value threshold	The value must change by at least 30 lux for the sensor to send a change of value.
Maximum operating life with no light power or battery	Up to 4 days
Minimum illumination strength	40 lux, constant
Time to fully charge	Depends on available lux. Sensor will fully charge in 8 hours @ 1000 lux, or 24 hours @ 333 lux.
Degree of protection	IP50
Operating environment	-3° to 140°F (20° to 60°C) 5% to 95% relative humidity (non-condensing)
Housing	ABS plastic, traffic white color
Weight	0.2 lb. (.09 kg)
Dimensions	3.17 in. W x 4.02 in. H x 1.25 in. D (8.05 cm W x 10.2 cm H x 3.18 cm D)
Compliance	<p>United States of America: FCC CFR 47, Chapter 1, Subchapter A, Part 15, Subpart B, Class B Contains FCC ID: SZV-STM300U</p> <p>Canada: Industry Canada Compliant, ICES-003, Class B Contains IC ID: 6713A-STM300U</p> <p>Europe:  Mark Low Voltage Directive: 2014/35/EU RoHS Compliant: 2011/65/EU</p> <p>Australia and New Zealand:  C-Tick Mark, AS/NZS 61000-6-3</p>

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