

# Telkonet SmartEnergy™

## SS2000 Energy Management Occupancy Sensor



### Overview

The SS2000 Energy Management Occupancy Sensor communicates via a wireless radio link or hard-wired connection to the SS5000 Energy Management Thermostat or the SS1000 Energy Management Controller. Since the SS2000 has its own power supply and a wireless radio link, the sensor can be placed in any optimum room viewing position, which is typically on the ceiling over the foot of the bed. Up to eight SS2000's can be hard-wired or wirelessly linked to each HVAC control. The SS2000's occupancy information can be used to automate lighting, dampers, and many other functions that can benefit from occupancy-based energy controls.

With a hidden internal prism, the SS2000 covers a wide area, providing overlapping coverage to identify occupants within a room. The SS2000 senses when a room is occupied or vacant, and with the passive infrared technology, eliminates problems caused by occupants who are sleeping or very still, retaining their preferred temperature settings throughout the night. When a room becomes unoccupied, the SS2000 sends wireless signals to the SS5000 Energy Management Thermostat or the SS1000 Energy Management Controller, indicating unoccupied status. The SS5000 or SS1000 respond by adjusting the temperature to energy saving mode, reducing HVAC runtime. Once an occupant returns to the room, the SS2000 senses the motion and body heat and immediately sends a wireless signal to the SS1000/SS5000, which responds to this signal by recovering to the occupant's setpoint within the assigned recovery time.

### Patented Recovery Time Technology

By incorporating Telkonet's patented Recovery Time™ technology into the SS5000 and the SS1000, they constantly calculate how far each room's temperature can drift from the occupant's preferred setting (setpoint) to maximize energy savings and still return within the preset recovery time. Every room is constantly evaluated independently to determine its energy efficient temperature, or setpoint, based on its environmental characteristics. Factors considered include if the drapes are open or closed, the window placement in the room, if the climate is dry or humid, the varying weather conditions, and the functional condition of the HVAC unit.

The SS2000 Energy Management Occupancy Sensor uses digital signal processing and passive infrared technology to continuously monitor for body heat and motion in a room.

Through the constant monitoring of the HVAC unit's ability to drive the temperature and real-time adjustment of setback temperature (Recovery Time™ technology), rooms are never excessively hot or cold when an occupant returns to the room. The room will always be just minutes away from an occupant's desired comfort setting. Unlike fixed setback systems where the temperature is forced to one setpoint in all rooms, Recovery Time technology delivers room-by-room, occupant-by-occupant savings, while maximizing occupant comfort.

### Features and Benefits

#### Occupant Comfort

- People-sensing technology that monitors motion and body heat

#### Installation

- Wireless communication allows simple, non-disruptive installation
- Unobtrusive design

#### Operation

- Communicates wirelessly; optional hardwired interface via 4 pin Molex
- Motion/infrared sensors communicate wirelessly
- Portable power; no wiring needed
- Up to eight sensors can be linked with each SS5000/SS1000
- Low power mode allows for extended battery life

### Reliability

- All PCM assembly is 100% quality tested before shipped
- Replacement of damaged or broken components; no need to replace the entire system
- Selectable RF transmit rates for reliable communication in all types of building construction

### Maintenance

- Simple maintenance; four AA batteries need replacement only every two years

### Options

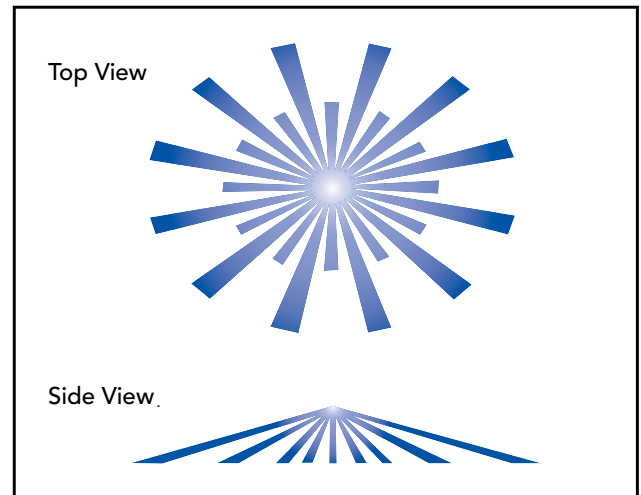
- Supports automatic control of lighting in conjunction with the SS5000 Energy Management Thermostat

### Other

- Resistant to sun, TV, moving curtains
- FCC approved
- One year standard warranty

Note: Features for the energy management products listed above vary by model number.

### Typical Coverage Patterns



SS2000 Energy Management Occupancy Sensor scans an entire room for motion.

### Technical Specifications

Parameter	Limits	Units	Comments
Operational Voltages	4.75-6.5	VDC	5.0 VDC nom.
Input Current	100/62,000	uAmp	View/Transmit mode
Output Power	1	mW ERP	FCC part 15
Frequency	49.85	MHz	AM modulation
Baud Rate	1,200	BPS	—
Detection Range	30	Feet	Sensing area's diameter
Radio Range	100 - 300	Feet	Varies with construction
Batteries	4	AA	Alkaline AA
Dimensions	4.6 X 1.5	Inches	Diameter x profile
Certifications	FCC	—	—

\*Technical specifications are subject to change at any time.

Related Products: SS1000 Energy Management Controller, SS5000 Energy Management Thermostat

[www.telkonet.com](http://www.telkonet.com)

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