Energy Harvesting Wireless Sensors

LevNet RF™ Energy Harvesting Sensors are part of LevNet RF™'s complete line of energy harvesting solutions. The occupancy sensors have built-in solar cells that draw on available ambient light within a space to power themselves and can operate for up to 48 hours in total darkness. The self-powered sensor design also overcomes the placement and coverage challenges of traditional sensors. Self-powered sensors enable flexible placement allowing sensors to be mounted wherever needed without the complexity of moving or installing new wiring.

Features and Benefits

- Zero Power Consumption: Solar power provides the energy to keep the device on and sensor technology turns the lights off, lowering the end user's energy bill
- Zero External Power Required: With no power wire limitations, this enables the installer to place the sensor in the optimal location to capture minor motion and reduce false OFFs
- No Additional Wiring: Self-powered wireless technology eliminates the need to pull additional wire, making installation quick and easy and increasing labor savings with little to no impact on business during conversion
- Advanced Field-of-View: Superior detection for parallel and perpendicular motion; innovative technology detects motion moving directly towards the sensor; 360° rotation to fine tune location of solar cells and field-of-view for the most accurate sensing possible

Ideal Uses

- Retrofits, new construction, restrooms, conference rooms, classrooms, private and executive offices and retail spaces

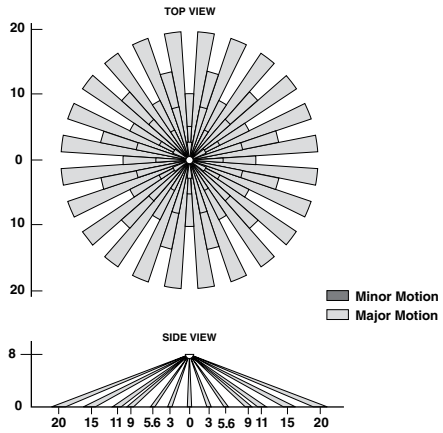
Commercial Energy Harvesting Wireless Sensors

Description	Cat. No.	Coverage	Color
LevNet RF™ Low Profile Self-Powered PIR Occupancy Sensor	WSC04-IRW	360°, 450SF	White
LevNet RF™ Low Profile Self-Powered PIR Occupancy Sensor	WSC15-IRW	360°, 1500SF	White
LevNet RF™ Self-Powered PIR Occupancy Sensor	WSC04-I0W	360°, 450SF	White

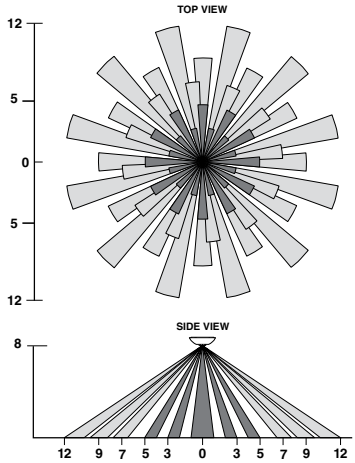
WSC04-IRW

Field of View for LevNet RF™ Energy Harvesting Wireless Sensors

WSC15 (in feet)



WSC04 (in feet)



Related Products
LevNet RF™ is Leviton's family of energy harvesting radio frequency products. **See pages N-34 to N-41 for more information.**

LevNet RF™ Energy Harvesting Wireless System

Basic System Selection

STEP 1 Determine What LOADS You Want to Control: Lighting, HVAC, Lamp, TV, etc.

STEP 2 Pick the Appropriate RF RECEIVER and/or TRANSCEIVER

LevNet RF™ Wireless/ Wired-In Receivers

Receiving

LevNet RF™ Wireless/ Wired-In Transceivers

Receiving

Repeating

STEP 3 Pick the Appropriate Energy Harvesting Wireless RF Transmitter (Sensor or Switch)

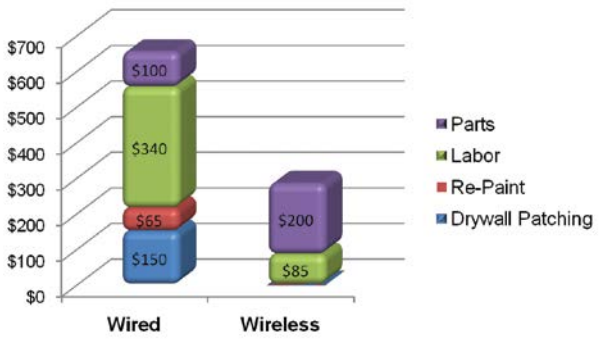
LevNet RF™ Sensor or Switch

Transmitting

Tip *A good way to visualize your wireless system is to imagine that the "wires" connecting each device are invisible wires or "unique addresses."*

Wired vs. Wireless Cost

*Installation time per device: 45-50 minutes for hardwired vs. 10-15 minutes for wireless devices



LevNet RF™ Transmitters

Sensors				
	Ceiling Mount Occupancy Sensors			Wall Mount Occupancy Sensors
Cat. No.	**WSC04-IRW**	**WSC15-IRW**	**WSC04-I0W**	**WSWDR-I0W**
Coverage	450SF	1500SF	450SF	80 ft
Power Consumption	Zero			Zero
Photocell	—			—
Transmission	60 seconds (+/- 10 sec)			30 minutes @ 0.5FC (5 LUX); 15 minutes @ 1.0FC (10 LUX); 30 seconds @ 20FC (200 LUX)
Minimum Light Required	4FC (40 LUX)			1.5FC (15 LUX)
Minimum Charge Time to Begin Operation	1 minute @ 20FC (200 LUX)			1 minute @ 1.5FC (15 LUX); 5 seconds @ 20FC (200 LUX)
Maintain Charge Time	3 hours per 24 hours @ 20FC (200 LUX)			3 hours per 24 hours @ 20FC (200 LUX)
Operating Life at Full Charge	48 hours			48 hours
Additional Listings	CA Title 24 Compliant			—

	Window/Door Contact Sensors
Cat. No.	**WSR00-030**
Coverage	75 ft (typical)
Power Consumption	Zero
Photocell	—
Transmission	60 seconds (+/- 10 sec)
Minimum Light Required	4FC (40 LUX)
Minimum Charge Time to Begin Operation	<2.5 min @ 40FC (400 LUX), 77° F (25° C)
Maintain Charge Time	3 hours per 24 hours @ 20FC (200 LUX)
Operating Life at Full Charge	6 days if energy storage is fully charged


WSC04-IRW


WSWDR


WSR00