

Room Control

LevNet RF™ Energy Harvesting Wireless Solutions

LevNet RF™ is Leviton's family of energy harvesting radio frequency products based on EnOcean's technology. EnOcean-based products, including the LevNet RF™ products, have three common features. They are:

- **Energy Harvesting Technology**
- **Wireless (Radio Frequency)**
- **Interoperable within an RF-Based Network**

Energy harvesting technology allows LevNet RF™ transmitters (i.e., occupancy sensors, switches, light sensors and hotel key card switches) to operate indefinitely without external power or batteries. Self-powered transmitters receive power from the motion of a switch actuation, light on a solar cell or temperature differentials in the environment for a true zero-maintenance energy harvesting device. Operating in the 315 MHz band provides minimal competing traffic and greater transmission range than other technologies. With no additional or new wiring required, LevNet RF™ delivers easy-to-install energy harvesting lighting controls with little to no interruption to a customer's operations and without damage to the customer's property.

Product Overview

There are three main types of LevNet RF™ products:

- A TRANSMITTER, such as a switch, generates a wireless RF control signal (e.g., "ACTUATE RELAY"). All transmitters are self-powered products that can be located anywhere and send transmission signals. Transmitters are available in occupancy sensor, light sensor, switch leg, Vizia®-style remote switch, Decora® rocker switch remote, handheld remote, hotel key card and 3 x 3 remote switch (international) varieties.
- A RECEIVER receives a control signal from a transmitter and performs the appropriate action (e.g., activate or deactivate the relay). All receivers are connected to a power source and a load that the receiver operates when the RF signal is received. Receivers are available in basic and advanced wall switch, 3- and 5-wire relay, plug-in and thermostat styles.
- A TRANSCEIVER acts as both a transmitter (when it is generating an RF signal) and as a receiver (when it receives and processes an RF signal generated by a transmitter). The transceiver can also be used as a repeater where it utilizes the receiver and then retransmits the RF signal. Leviton offers room, shade, dimmer and 4- and 8-channel relay controllers.
- Accessories available for LevNet RF™ products include RS-232 serial box, signal strength meter, power packs and industrial wireless relay.

Features and Benefits

- Easy to install for new construction and retrofit applications, requiring minimal labor disruption to operations
- Requires no new wiring and installs in ¼ the time of hardwired sensors, translating into faster turnaround and reduced costs
- With no batteries to replace and no maintenance to perform, plus annual energy savings and rebates that can total up to 80% in reduced costs, LevNet RF™ revolutionizes efficiency and savings
- Lowest power consumption of any RF device with less than one Watt per device used annually, saving approximately 70% over other RF devices
- LevNet RF™ is the only energy harvesting wireless solution that fulfills LEED requirements to earn LEED points for both wireless control and no battery
- Operation at 315 MHz band reduces interference and increases transmission range
- Range: 50 to 150 feet
- FCC Certified for Wireless Communication (U.S.), I.C. Certified (Canada)*
- Backed by a limited 5-year warranty

*Excludes WSD02-020.

NAFTA and Made in USA models available — visit www.leviton.com/NAFTA or www.leviton.com/USA

Visit www.leviton.com/levnetrf 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 TRANSCIVER

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



ROOM CONTROL | LevNet RF™ Transmitters and Thermostats

LevNet RF™ Transmitters

Remote Switches — Controls virtually any on/off device							
	Remote Single Push On/Off Decora™ Switch*	Single/Dual Rocker Decora™ Switch*		Handheld 4-Button Remote	Hotel Key Card Switch	3x3 Single/Dual Rocker Switch**	
Cat. No.	WSS0S-P0x	WSS0S-D0x	WSS0S-D2x	WSS0S-R0W	WSS0S-H0W	WSS0S-E0X	WSS0S-E2X
Buttons	1 Button	2 Buttons (1 Rocker)	4 Buttons (2 Rockers)	4 Buttons (2 Rockers)	—	2 Buttons (1 Rocker)	4 Buttons (2 Rockers)
Card Slot	—				1 (card IN, card OUT)	—	
Output Channels	Only limited by number of Receivers in range						
Addressing	Factory set unique ID (1 of 4 billion)						

*Available in White (-W), Ivory (-I), Light Almond (-T), Gray (-G) and Ebony (-E).
 **Available in White (-E0W, E2W) or Black (-E0B, -E2B)



WSS0S-R0W



WSS0S-H0W

Thermostats		
	24V Thermostat	120-277V Thermostat
Cat. No.	WS0TH -D00	WS0TH -A00
Description	Adjusts temperature based on “occupied” and “unoccupied” signals	
Input Voltage	24V AC/DC	120V AC to 277V AC (102 min to 304 max)
Load Rating	24V (1.5amp/circuit)	120/277 (2.4amp/circuit)
Temperature Monitor Range	32°F to 99.9°F (0°C to 37.7°C)	
Temperature Set Point Range	60°F to 85°F (15.5°C to 29.5°C)	
Sampling Rule	Every 5 seconds	
Fan Control	Selectable: Auto Cycle, Low, Medium, High, Economy, Off	
Memory	Stores up to 30 Switch IDs	
Heat/Cool Control	1 Heat and 1 Cool circuit	



WS0TH

N

Energy Management