



# EcoInsight

Energy Management Thermostat

A revolutionary energy management thermostat with a built-in occupancy sensor and optional ZigBee™ capability.

## Flexible Hardware for Compatibility

The EcoInsight is a programmable controllable thermostat with over 125 configurable settings used to control the efficiency of HVAC systems. The EcoInsight provides unparalleled compatibility across HVAC systems, and is easily installed on packaged terminal air conditioners, fan coils, heat pumps, split systems, and more.

With its software-based relay control and fan speed configuration, programming setup is simple and fast. The ultra-wide power input along with its ability to switch to alternate power sources, and its variable outputs for proportional control systems makes the EcoInsight a fit for the basic to the most complicated installations. Large capacity internal data loggers measuring over 40 various runtime metrics make the EcoInsight the thermostat of choice for measurement, verification, and detailed analytics.

With the EcoInsight you get more than just a thermostat with a generous number of input options. Up to three Current Transducer (CT) inputs can be used to measure and log current. An external temperature input can be used to monitor remote temperature and two dry contact pairs are available for door contacts or integration with third party building controls.

## Standards Based Communication to Grow On

With built-in intelligence, the EcoInsight can communicate as part of a larger EcoSmart network based on the optional ZigBee wireless module or fit seamlessly into existing control networks already based on ZigBee standards. The EcoInsight can also utilize a building's direct digital control or building automation system to communicate with industry standards such as BACnet. An optional Ethernet module also provides an alternative network option via CAT-5 cabling for sites with existing hardwired connectivity.

## Efficient HVAC Operation While Away

The EcoInsight thermostat is designed to provide building operators with efficiency in the performance of their HVAC systems. It achieves efficiency by allowing control over available setpoint ranges, mode selections, setback temperature limits, and data from interconnected systems such as a hotel's property management system or time-of-day utility pricing data. Using the built-in passive infra-red occupancy sensor, optional external sensor (EcoView), or the optional door contact (EcoContact), the EcoInsight will determine when a space is occupied or vacant and react according to its operator's programming. The system can revert to temperature limits set by the operator or implement Telkonet's patented Recovery Time technology.



## Overview

- Onboard PIR occupancy sensor
- 100% ZigBee™ compatible
- Provides access to tools and resources that constantly monitor and control your energy savings
- Two configurable soft buttons

## Key Features

- Highly compatible across many heating and cooling systems
- Easily installed and programmed
- Optional IP network
- Patented Recovery Time Technology
- Networked or stand-alone operations
- Full remote control capability with any web browser via our EcoCentral platform
- Communicates wirelessly with other EcoSmart products to ensure the highest energy savings

## Availability

The EcoInsight is available now

The Recovery Time method will dynamically select the optimum setback temperature for each individual HVAC system based on its past performance and specific room characteristics, such as solar load. The Ecolnsight is designed with networking in mind but is fully functional as a stand-alone thermostat. Large internal memory is standard on the Ecolnsight and data is available for download via laptop connection. When the optional ZigBee network module is installed, the Ecolnsight becomes a ZigBee router; internally logging and sending data on selectable intervals to a centralized database server. By combining the Ecolnsight thermostat with the full EcoSmart network solution, an operator gains remote control capability down to the individual EcoSmart thermostat level.

A setpoint or mode can be changed room-by-room over the secure web based EcoCentral portal. Adjusting setpoint ranges, setback temperature, or even scheduling load shed events is done easily by grouping the settings into new profiles, which will be delivered to a group of thermostats at a time.

### EcoSmart Patented Recovery Time

Ecolnsight constantly calculates how far the 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 and independently evaluated to determine its energy efficient temperature based on environmental characteristics. Through the constant monitoring of the HVAC unit's ability to drive the temperature and real-time adjustment of setback temperature, rooms are never excessively hot or cold when an occupant returns to the room. Recovery Time technology delivers room-by-room, occupant-by-occupant savings while maximizing occupant comfort.

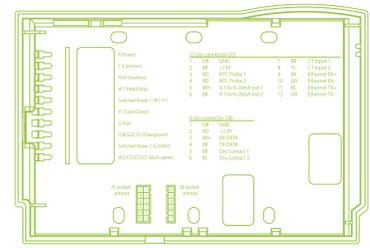
### Design for All Styles

The Ecolnsight thermostat features a modern design with optional backlights in orange and blue. The large, easy-to-read LCD display has options to display both the setpoint and room temperature as well as outdoor temperature. Maintaining the Ecolnsight thermostat is simple with a secured maintenance menu for building staff.

The Ecolnsight comes in two optional enclosures: flush-mount and partially recessed. Both enclosures are available in a multitude of Pantone colors to match specific designer requirements. Optional buttons under the screen can be software customized per site. Common uses include F°/C°, Heat/Cool mode buttons, Night-Light, and Savings Mode.

### Proven Savings

Telkonet's energy efficiency products have been proven in over 250,000 rooms across Hospitality, Education, Military, and Health Care markets. The power and intelligence behind the Ecolnsight make it an ideal fit for a number of applications, including residential and office complex space. New opportunities for efficiency in HVAC are constantly uncovered with the wide array of support the Ecolnsight provides.



Height: 4" (10.2 cm)

Width: 6" (15.2 cm)

Depth: 1.5" (3.8 cm)

### Technical Specifications

ZigBee™ 802.15.4 Wireless

2.4 GHz ISM band

Temperature Range: 35-120 °F (2-49 °C)

Humidity Accuracy: +/-2% (10-90% RH)

Operational Voltage: 12-277AC 12-195DC

Switched: 3-7(3A), 0-2(5A), 0-1(10A)

Maximum Functional Wattage: 2.5W

### Options

Humidity Sensor

Real-Time Clock

Ethernet Port

External CT

External Temperature Probe

### Standards

ZigBee™ Certified

FCC Certified

For more information contact a Telkonet representative today. Visit [www.telkonet.com](http://www.telkonet.com) or call 888.703.9398.