

EC-STAT

**DISTECH
CONTROLS™**

Building Open Control Products

EasyControls™ Application Specific Thermostat

- 2 Digital inputs (software configurable)
- 1 remote room sensor input
- 1 remote outdoor sensor input
- Up to 2 cooling and 2 heating stage outputs (depending on model)
- 1 smart fan output
- 1 auxiliary output



Applications

Designed to meet the requirements of any systems such as roof top and heat pump units.

- Quick and convenient access
- Allows you to change set point configurations and schedule directly on the controller

Features

Interoperability

- Based on LONWORKS® technology for peer-to-peer communication between controllers
- LONMARK® certified according to the Interoperability Guidelines Version 3.3
- LONMARK Functional Profile: Space Comfort Controller #8500

Hardware

- Neuron® 3120® processor
- Can be wall mounted, but also available in flush mount and din rail
- Two-line (8 characters per line) LCD display
- Status indicator
- Robust ABS resin casing
- Easy connection with removable terminals

SCC Object

- Gas/oil or electric system compatibility for all types of applications
- Remote indoor sensing capability for added flexibility
- Temperature averaging with 2, 3, 4, 9 or 16 sensors
- Lockable keypads for tamper proofing. No need for thermostat guards
- Automatic frost protection to prevent costly freeze damage
- Anti short cycle and minimum on/off run time protection. Reduces wear and maximizes life span of mechanical equipment.
- 2 programmable digital inputs for added flexibility
- 7 day programmable models, 2 or 4 events
- Non volatile EEPROM memory prevents loss of parameters during power shortage
- Configurable SPST output relay on programmable models for lighting, exhaust fan or fresh air control (cycles per hours)
- 0 to 10 VDC economizer output for more retrofit opportunities
- 6 hour typical reserve time for clock in case of power loss
- Programmable smart fan operation saves energy during night mode



The EC-STAT thermostat family is specifically designed for single stage and multi-stage control of heating/cooling equipment such as roof top and heat pump units. It is based on the LONWORKS® open system.

Accurate temperature control is achieved using the product's PI time proportional control algorithm, which virtually eliminates the temperature offset, associated with traditional, differential-based thermostats.

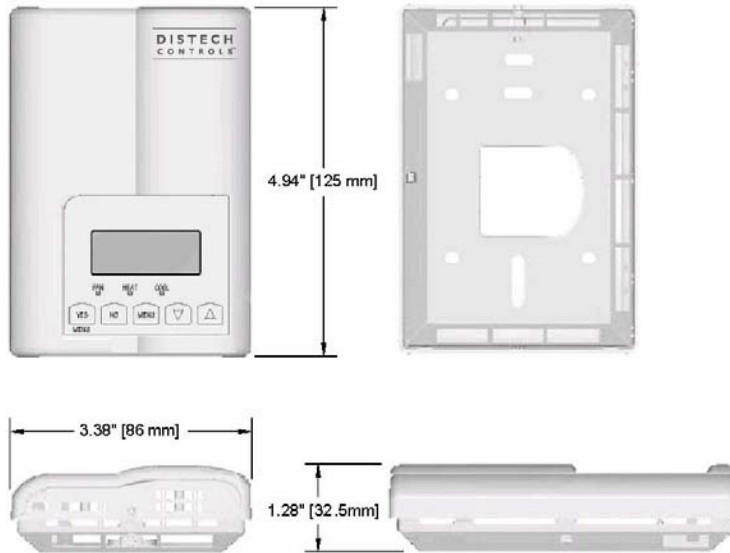
For more advanced applications, an economizer control logic has been integrated onto the thermostat for use with proportional damper economizer actuators. All programmable models contain an SPST auxiliary switch, which can be used to control lighting or disable the economizer function.

The EC-STAT can be configured by using either any LNS® based software, such as Distech Controls' LonWatcher, or by using a multi-protocol platform software supporting LONWORKS devices, such as the EC-Net Pro software powered by the Niagara Framework.

Furthermore, an easy-to-use Distech Controls LNS plug-in, and a Niagara Framework EC-Net wizard, are available to configure the features of the EC-STAT. These configuration interfaces are designed to simplify complex programming and sequencing methods by prompting the user for the necessary configuration data. The controller then automatically selects the operation sequence according to the input and output configurations, and dynamically adapts itself to the network variables that are bound to the controller.

The EasyControls product line is built to meet rigorous quality standards and carries a two-year warranty. The complete line of EasyControls controllers is designed for use with any LNS based and/or any other open and interoperable system – such as EC-Net. This provides both the contractor and the end user with the flexibility of using “best of breed” products in system design.

Product Specifications



Power		Inputs	
Voltage	19-30 VAC, 50/60HZ, Class 2	Digital	Relay dry contact only across C Terminal to DI1 or DI2
Protection	5 Amp Removable Fuse	Outputs	
Typical Consumption	2 VA	Contact rating	Each relay output (Y1, Y2, G, W1, W2 & AU) has: 30 VAC, 1A maximum 30 VAC, 3A in-rush
Maximum Consumption	13 VA	LCD Display	
Environmental		Type	Backlit LCD Display
Operating Temperature	0°C to 50°C, 32°F to 122°F	Display area	2 rows of 8 characters each
Storage Temperature	-30°C to 50°C, -22°F to 122°F	Functionality	
Relative Humidity	0 to 95% Non-Condensing	Resolution	±0.1°C (±0.2°F)
General		Control Accuracy	±0.5°C (±0.9°F) @21°C (70°F) typically calibrated
Processor	Neuron [®] 3120 [®] ; 8 bits; 10MHZ	Sensor Range:	
Memory	EEPROM	- Occ and Unocc Setpoints	
Communication	LonTalk [®] Protocol	<i>Cooling</i>	
Transceiver	TP/FT-10; 78 Kbps	12.0°C to 37.5°C (54°F to 100°F)	
Battery (for clock only)	CR2032 lithium battery	<i>Heating</i>	
Enclosure		4.5°C to 32 °C (40°F to 90°F)	
Material	ABS Resin	- Room air Temp. -40°C to 50°C (-40°F to 122°F)	
Color	Off white	- Outdoor air Temp. -40°C to 50°C (-40°F to 122°F)	
Dimension	4.94" x 3.38" x 1.13" (124 x 85 x 28 mm)	Proportional band for Heating and cooling: 1.1°C (2.0°F)	
Shipping Weight	0.62 lbs (0.28 kg)	room temp. control	
Agency Approvals		Economizer Analog	0to10Vdc into 2KΩ resistance min
CE (Pending)	EN50081-1:1992 EMC Emission (Pending)	Output Rating	
	EN50082-2:1992 EMC Immunity (Pending)	Economizer Analog	±3% typical
FCC Class A	Class A computing device, Subpart J of Part 15	Output Accuracy	
UL Listed	UL873 File E234137 with CCN's XAPX (US) and		
(CDN & US)	XAPX7 (Canada).		

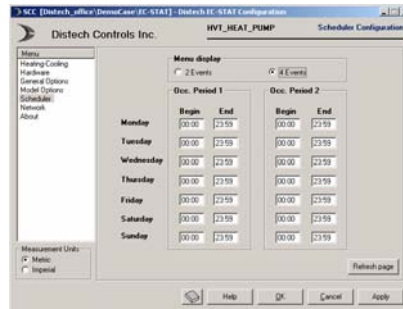
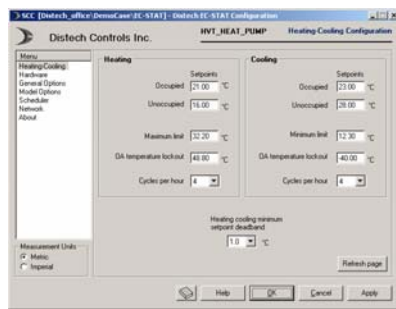
EC-STAT Controller Selection Guide

EC-STAT Model Selection Guide (RT = Roof Top and HP = Heat Pump)

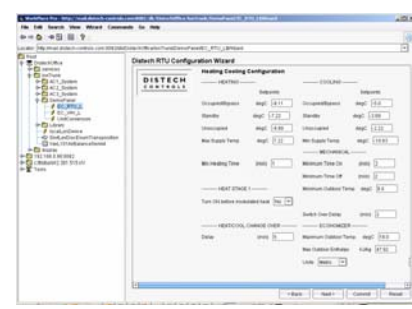
Model name	1 Heating / 1 Cooling stage	2 Heating / 2 Cooling stages	2 Heating / 2 Cooling stages with economizer	Heat Pump (Reversing Valve)	Scheduling
EC-STAT-RT1P	✓				✓
EC-STAT-RT1	✓				
EC-STAT-RT2P		✓			✓
EC-STAT-RT2		✓			
EC-STAT-RT2EP			✓		✓
EC-STAT-RT2E			✓		
EC-STAT-HPP				✓	✓
EC-STAT-HP				✓	

Software Previews

LNS Configuration Plug-in*



EC-Net Wizard for Niagara Framework



Easily configure all of the devices' parameters including inputs, outputs, fan and valve settings, heating and cooling setpoints, and schedules, amongst others. You can also enable and configure additional built-in features specific to the type of EC-STAT used, such as Roof Top Unit or Heat Pump Unit models. These options include reversing valve or compressor options, as well as economizer settings, to name but a few.

Designed for use with the Niagara Framework, the EC-Net wizard offers all the same features accessible within the LNS plug-in. Simply add pre-defined shadow objects into your database and immediately launch the wizard with a couple clicks of your mouse!

* LNS Plug-ins can be used with any LNS based network management and GUI tools, such as Distech Controls' LonWatcher, LonDisplay or Echelon's LonMaker.

Recommended Peripherals

Recommended Optional Accessories

Temperature Sensors



- | | |
|------------------|--|
| EC-SENSOR | Room sensor |
| EC-SENSOR-LO | Room sensor with LED and Override push button |
| EC-SENSOR-SLO-CW | Room sensor with LED, Override push button and setpoint adjustment (cool/warm) |
| EC-SENSOR-SLO-C | Room sensor with LED, Override push button and setpoint adjustment (Degrees C) |
| EC-SENSOR-SLO-F | Room sensor with LED, Override push button and setpoint adjustment (Degrees F) |
| EC-SENSOR-AVG | Averaging room sensor, no setpoint (Up to 3 in parallel) |
| EC-SENSOR-AVG-LO | Averaging room sensor with LED and Override push button |

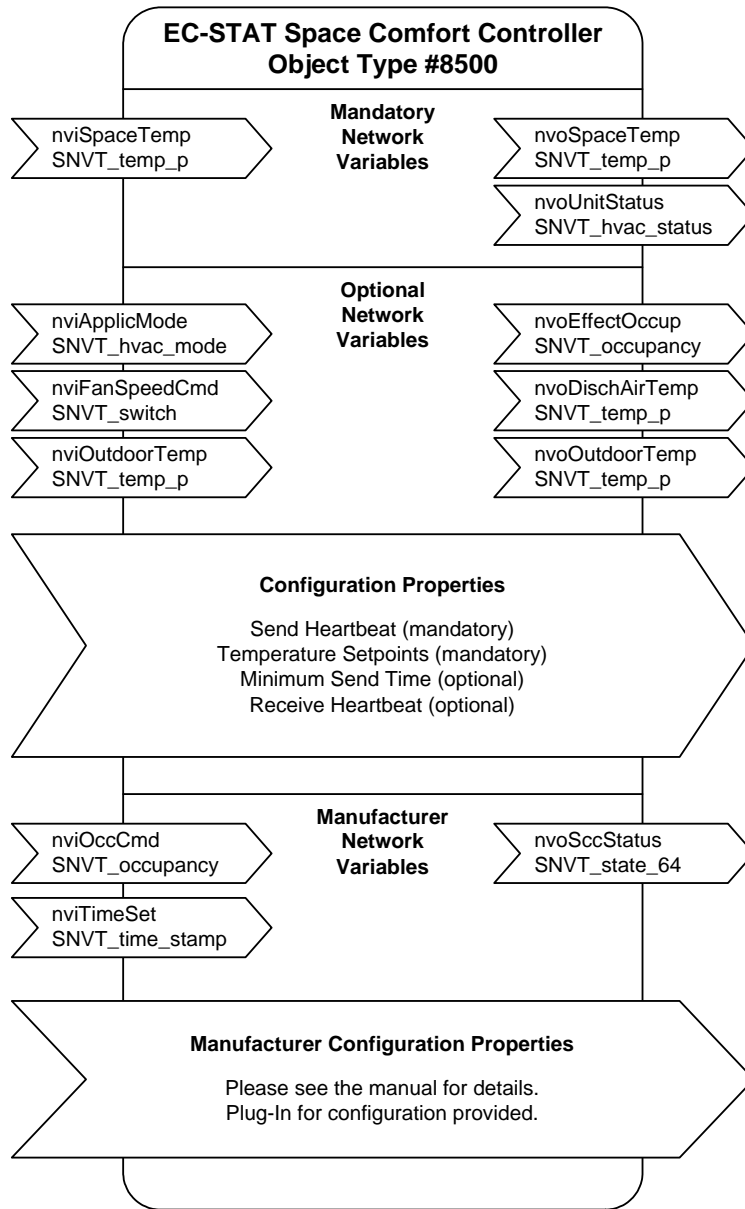
Other Peripherals

In addition to the Distech Controls EasyControls product line, we invite you to take advantage of our wide array of peripheral product offering. We are confident our peripheral product offering can:

- Facilitate your ordering process;
- Simplify your search for equal or better prices on all items;
- Help standardize your purchasing process while providing quality and performance-proven products.

Please contact sales@distech-controls.com for a complete list of available products and peripherals.

LONMARK® Objects & Network Variables



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