

EC-STAT-ZN

**DISTECH
CONTROLS™**

Building Open Control Products

easyCONTROLS™ LONMARK® “3.3” Certified Zoning Thermostat

- 2 Digital inputs (software configurable)
- 1 Analog/Digital input (software configurable) for remote changeover sensor/contact or supply sensor
- 1 Digital auxiliary output (triac)
- 2 Analog or 4 Digital outputs (depending on model)
- 1 Remote room sensor input
- 1 Internal temperature sensor



Applications

Designed to meet the requirements of local zoning applications such as:

- Control of pressure dependent Variable Air Volume (VAV) damper actuator, with options such as local reheat and changeover sensor
- Control of local hydronic reheat valve, with or without changeover sensor

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: Generic Space Comfort Controller #8500

Hardware

- Neuron® 3120® processor
- Two-line (8 characters per line) LCD display, to display all needed information including room temperature, unit status, temperature setpoints as well as changeover or supply temperature for diagnostic purposes
- Status indicator for heating and cooling modes
- Robust and modern looking ABS resin casing
- Easy connections for inputs and outputs, with removable terminals
- Multiple outputs can manage On/Off, floating or analog 0-10 Vdc control, depending on model
- Configurable output triac on all models to control lighting or auxiliary reheat

Space Comfort Controller Object

- Configure the device using the simple Distech Controls LNS® plug-in
- Programmable digital inputs for added flexibility, including remote supply temperature or changeover sensing capability for enhanced control, as well as remote room temperature sensing capability with temperature averaging of multiple remote sensors
- Digital input 1 reserved for occupancy sensor or dry contact, to maximize energy efficiency
- Maximum On/Off device cycles per hour, to reduce wear and maximize life span of mechanical equipment
- Adjustable maximum heating and minimum cooling setpoints, as well as occupancy setpoints (adjustable by hardware and software)
- Non volatile EEPROM memory prevents loss of parameters during power shortage
- Lockable keypads for tamper proofing. No need for thermostat guards



Based on the LONWORKS® open network protocol, the EC-STAT-ZN zoning controller is LONMARK certified and incorporates the Space Comfort Controller Object #8500 as defined by the LONMARK association. The EC-STAT-ZN thermostat product line is specifically designed for simple zoning applications, including:

- Control of a local hydronic reheat valve (for systems with 2 or 4 pipes), with or without changeover sensor
- Control of a variable air volume damper actuator, with or without changeover sensor (single or dual duct applications)
- Control of reheat stage

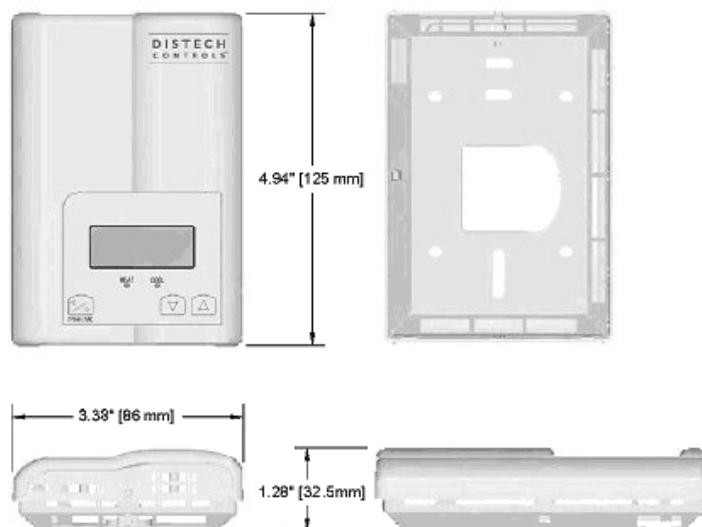
Accurate temperature control is achieved using the product's proportional-integral control algorithm, which virtually eliminates the temperature offset, associated with traditional, differential-based thermostats. For added flexibility, all digital inputs are programmable, to cover applications such as remote supply temperature sensing, changeover sensing, as well as remote room temperature sensing with temperature averaging capabilities for multiple sensors.

The EC-STAT-ZN device can either be configured manually via the buttons on the faceplate of the controller, or by using any LNS® network management tool, such as Distech Controls' Lonwatcher, allowing for the use of this device on projects of all sizes.

Furthermore, an easy-to-use Distech Controls EC-Configure LNS based plug-in is available to configure the features of the EC-STAT-ZN. This configuration interface is designed to simplify all programming and sequencing procedures, by prompting the user for the necessary configuration data. The controller then automatically selects the operation sequence according to the input and output settings, 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 system 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	2 Digital	
Protection	5 Amp Removable Fuse	1 Universal	Analog or digital, according to configuration settings
Typical Consumption	2 VA		
Maximum Consumption	13 VA		
Environmental		Outputs	
Operating Temperature	0°C to 50°C, 32°F to 122°F	1 Auxiliary Output	Isolated Triac
Storage Temperature	-30°C to 50°C, -22°F to 122°F	Valve Triac outputs	30 Vac, 1A Max, 3A in-rush (On/Off and Floating models only)
Relative Humidity	0 to 95% Non-Condensing	Valve Analog outputs	0 to 10 Vdc, 2kΩ resistance min. (Analog models only)
General		LCD Display	
Processor	Neuron [®] 3120 [®] ; 8 bits; 10MHZ	Type	Backlit LCD Display
Memory	EEPROM	Display area	2 rows of 8 characters each
Communication	LonTalk [®] Protocol		
Transceiver	TP/FT-10; 78 Kbps		
Enclosure		Functionality	
Material	ABS Resin	Sensor Resolution	±0.1°C (±0.2°F)
Color	Off white	Control Accuracy	±0.5°C (±0.9°F) @21°C (70°F) typically calibrated
Dimension	4.94" x 3.38" x 1.28" (124 x 85 x 28 mm)	Temp Sensor Range:	
Shipping Weight	0.75 lbs (0.34 kg)	- Occ and Unocc Setpoints	
		Cooling	12.0°C to 37.5°C (54°F to 100°F)
		Heating	4.5°C to 32 °C (40°F to 90°F)
		- Room air Temp.	-40°C to 50°C (-40°F to 122°F)
Agency Approvals		Proportional band for room temp. control	Heating and cooling: 1.1°C (2.0°F)
CE Emissions	Adheres to directive 89/336/EEC including CEI 61000-4-2, CEI 61000-4-3, CEI 61000-4-4, CEI 61000-4-5, CEI 61000-4-6, CEI 61000-4-11, ENV 50204		
Immunity	CISPR 22 class B		
FCC Class B	Class B computing device, Subpart B of Part 15		
UL Listed (CDN & US)	UL873 File E234137 with CCN's XAPX (US) and XAPX7 (Canada).		

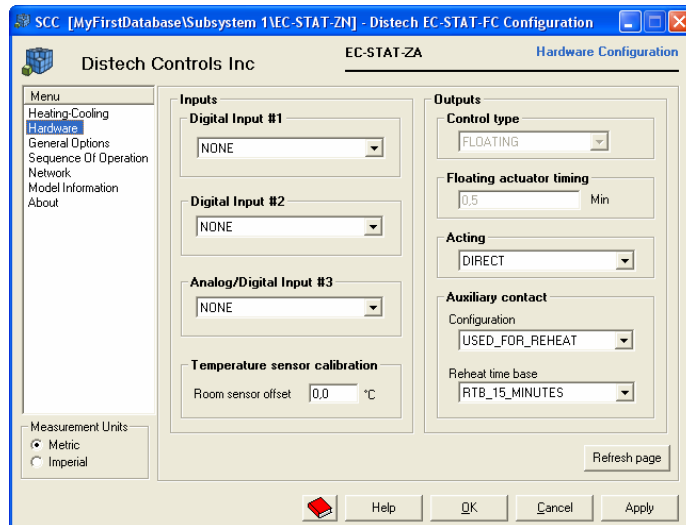
EC-STAT-ZN Thermostat Selection Guide

The EC-STAT-ZN series of controllers is comprised of two types of devices, differentiated only by the type of output each device can control. The following table describes the output type according to the model of the controller.

Model	Description / application	
	2 & 4 Pipe Floating & On/Off	2 & 4 Pipe Analog
EC-STAT-ZF	✓	
EC-STAT-ZA		✓

Software Preview

LNS Configuration Plug-in*



Easily configure all of the devices' parameters including inputs, outputs, sequence of operation as well as heating and cooling setpoints. Fully dynamic, the plug-in automatically adapts itself to the model of the EC-STAT-ZN connected to the network, as it recognizes the device's model and software version without user intervention.

For added functionality, configuration can be done even if devices are not online or physically connected to the network: the plug-in lets the user configure all of the parameters for every available device model, and once the controller is connected to the network, the plug-in automatically downloads the configuration properties into the device upon commissioning.

* LNS Plug-ins can be used with any LNS based network management and GUI tools, such as Distech Controls' Lonwatcher and Londisplay.

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 (°C)
EC-SENSOR-SLO-F	Room sensor with LED, Override push button and setpoint adjustment (°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

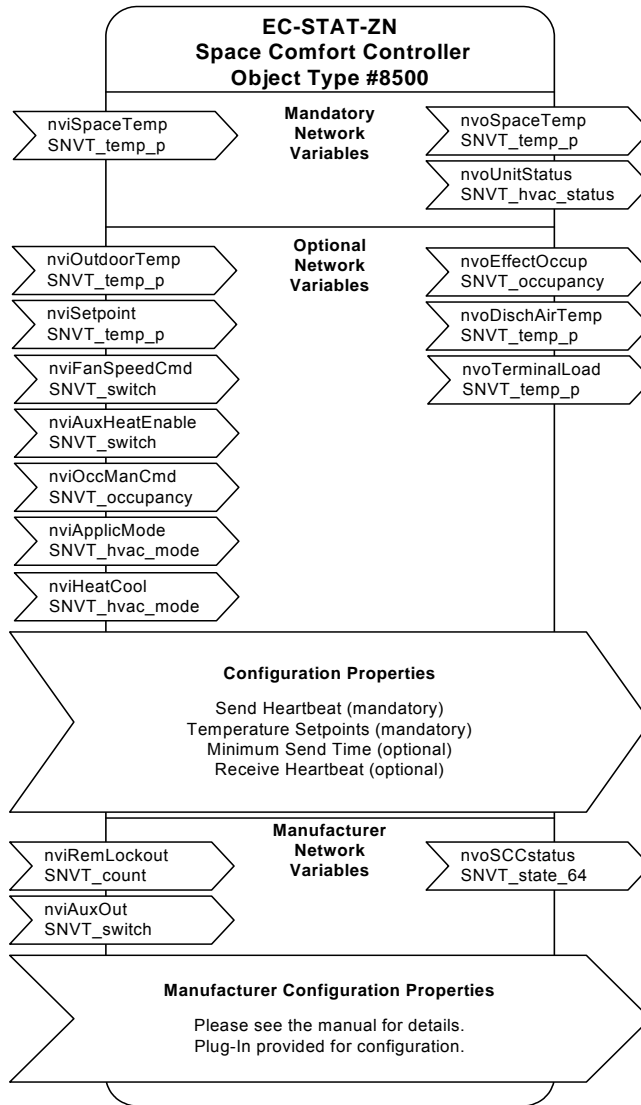
Other Peripherals

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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