

LN Series LN-VSTAT and LN-PSTAT Sensors

Product Bulletin

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The LN Series Sensors, LN-VSTAT and LN-PSTAT, are specifically designed to interface with the Johnson Controls® LN Series LN-VAVLF-2, LN-VAVLN-2, and LN-VVTLF-2 along with the LN-PFCUA-2 and LN-PFCU-2 controllers respectively.

The device provides precision local temperature sensing and a variety of user functions accessible by room occupants as well as password protected functions accessible by technicians.

The LN-VSTAT and LN-PSTAT allow you to monitor room and outside temperature, adjust setpoints, and initiate setpoint override. The Sensor has an air balancing tool for the Variable Air Volume (VAV) controllers. You can install the sensor or use it as a handheld air balancing tool.



Figure 1: LN-VSTAT Sensor

Table 1: Features and Benefits

Features	Benefits
Hardware	Provides power and communication over 2-wire interface, which allows you to use existing sensor wiring. The LN-VSTAT offers two-line (8 characters per line) Liquid Crystal Display (LCD) and an on board LON jack.
Controller Compatibility	Allows you to send data directly to the associated controller's SMRT inputs using a serial communication protocol.
Interface	Allows you to access various user mode functions, including view space temperature, view/adjust setpoint, view occupancy state, view outside air temperature, and display wink state. The sensor also offers a password protected configuration mode for advanced functions.

LN-VSTAT and LN-PSTAT Sensors
Overview

The LN-VSTAT and LN-PSTAT sensors gives occupants the ability to view and adjust environmental settings. Building occupants can also view the occupancy status, space temperature, and outside air temperature.

The LN-VSTAT and LN-PSTAT give maintenance personnel access to a password protected configuration mode that allows them to perform air balancing on a connected VAV controller. They can send service pin messages, toggle temperature units between °C and °F, specify VAV or Variable Air Volume and Temperature (VVT) mode, and view the values of all inputs and outputs to the LN-VAVLF and LN-VVTLF controllers.

You can permanently install the LN-VSTAT or LN-PSTAT on the wall or use it as a handheld air balancing tool that can be wired into a standard wall-mounted room sensor. When using the LN-VSTAT or LN-PSTAT as a portable unit, technicians can directly perform detailed monitoring and configuration (balancing) of the VAV and associated equipment, near the point of control. The lightweight design and quick connect 2-wire interface make the device convenient to use.

Dimensions

Figure 2 shows the LN-VSTAT and LN-PSTAT dimensions.

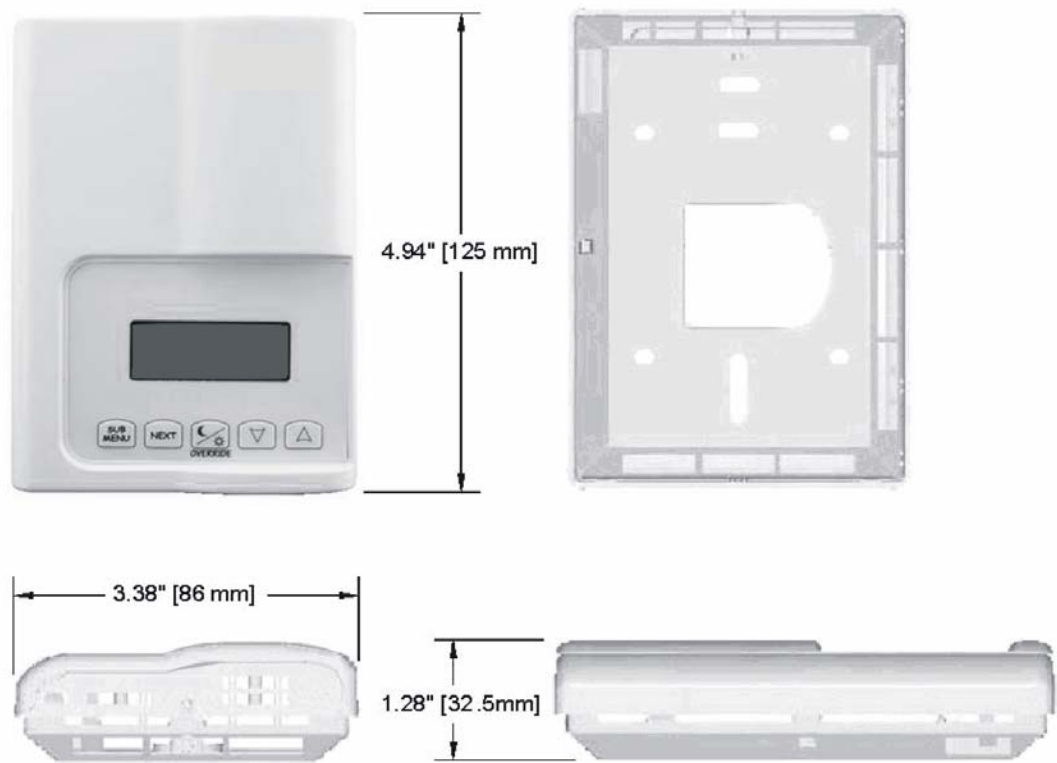


Figure 2: Dimensions, in. (mm)

Selection Chart

Code Number	Description
LN-VAVLN-2	Configurable VAV controller, flow sensor, 10 I/O (4 UIs, 4 triac DOs, 2 UO) and LNS Plug-in. No actuator.
LN-VVTLF-2	Configurable VAV controller, actuator with feedback, 10 I/O (4 UIs, 4 triac DOs, 2 UO) and LNS Plug-in. No flow sensor.
LN-VSTAT-2	Communicating sensor for use with LN-Vxxx-2 controllers, 2 line LCD display, balancing mode.
LN-PSTAT-2	Communicating sensor for use with LN-PFxx-2 controllers. 2 line LCD display

Technical Specifications

LN-VSTAT and LN-PSTAT

Product Codes	LN-VSTAT-2 and LN-PSTAT-2
Environmental	Operating Temperature: 0 to 70°C, (32 to 158°F) Storage Temperature: -20 to 70°C, (-4 to 158°F) Relative Humidity: 0 to 90% Noncondensing
General	Central Processing Unit (CPU): PIC16C622 Power Source: Externally powered 12 VDC LCD Display: 2 Lines, 8 Characters Sensor: 10K NTC Thermistor Range: -40 to 150°C (-40 to 302°F) Accuracy: $\pm 0.5^{\circ}\text{F}$, $\pm 0.36^{\circ}\text{F}$ Resolution: 0.1°C; 0.18°F
Enclosure	Material: ABS Resin Color: Off White Dimensions: 4.94 x 3.38 x 1.28 in. (124 x 85 x 32.5 mm) Shipping Weight: 0.4 lb (0.18 kg)
Compliance	FCC: FCC Part 15, subpart B, Class B UL Listed: UL-873 Temperature Indicating & Regulating Equipment Material: UL94-VO
Agency	UL Listed UL-873 Temperature Indicating & Regulating Equipment FCC: FCC part 15, subpart B, Class B Material: UL94-VO

The performance specifications are nominal and conform to acceptable industry standard. For application at conditions beyond these specifications, consult the local Johnson Controls® office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

Federal Communication Commission (FCC) Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense.

Warning: Changes or modifications to this unit not expressly approved by Johnson Controls, Inc. could void the user authority to operate the equipment.

Canadian Compliance Statement

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le Industrie Canada.



Building Efficiency

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