

EXTENDED RANGE TEMPERATURE AND HUMIDITY SENSOR

Cat. No. 31A00-8 Installation Instructions



DI-021-EM318-00A
(31100-8)

INSTALLATION

ENGLISH

WARNINGS AND CAUTIONS

- Read and understand all instructions. Follow all warnings and instructions marked on the product.
- Do not use this product near water - e.g., near a tub, wash basin, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
- Never push objects of any kind into this product through openings, as they may touch dangerous voltages.
- SAVE THESE INSTRUCTIONS.

WARNINGS AND CAUTIONS

- Never install communications wiring or components during a lightning storm.
- Never install communications components in wet locations unless the components are designed specifically for use in wet locations.
- Never touch uninsulated wires or terminals unless the wiring has been disconnected at the network interface.
- Use caution when installing or modifying communications wiring or components.

SPECIFICATIONS

Dimensions: 2.75W x 2.75H x 1D
 Temperature Range: -40° F - 120° F
 Humidity Range: 0% - 100% relative humidity
 Current Consumption: 15mA maximum

DESCRIPTION

The Model 31A00-8 Extended Range Temperature and Humidity Sensor is used for sensing temperatures from -40° F - 120° F when connected to an Leviton Home Control System with Firmware Version 2.8 or higher. It can also be used for reporting the relative humidity from 0 to 100 percent. The Model 31A00-8 features a new, high accuracy temperature sensor.

The temperature can be used to activate programs for controlling temperatures in attics, garages, greenhouses, basements, wine cellars, coolers, and freezers. The temperature can be displayed on the console or touchscreen, or spoken over the telephone. It can also report, log, alert, or generate an alarm if the temperature reaches freeze conditions or if the temperature goes above the high setpoint or drops below the low setpoint programmed in the system.

High and low humidity limits can be set for taking action (i.e. turning on the bathroom vent fan, running a/c in de-humidification mode, turning on humidifier in heating mode, etc.) or reporting high or low humidity conditions in homes, greenhouses, wine cellars, coolers, humidors, etc. Controlling humidity is particularly helpful in combating the growth of mold in vulnerable areas of the home, such as bathrooms, basements, attics, etc.

When used outdoors, the Model 31A00-8 should be mounted under an overhang to protect it from direct sunlight and rain. It is coated with a sealant to withstand outdoor moisture. The outdoor temperature and/or humidity can be displayed on the console or touchscreen, or spoken over the telephone. Furthermore, the outdoor temperature can be displayed on a Leviton communicating thermostat. Automation programs, macros, and indoor appliances can be controlled based on the outdoor temperature and/or humidity.

INSTALLATION

1. Each Model 31A00-8 requires one zone input on the Leviton controller or Expander Module for temperature. The Model 31A00-8 can not be connected to a zone on an Expansion Enclosure (i.e. Model 17A00) for temperature. It also requires one zone input for humidity. Run a 4-conductor wire from the controller location to each Model 31A00-8. The humidity sensor can be used without using the temperature sensor.
2. Mount the Model 31A00-8 using the supplied wall anchors, screws, and mounting bracket (if desired). For optimal temperature and humidity readings, mount it vertically so that the white arrow (silk-screened onto the board) points upward as shown in **FIGURE 1**. The plastic enclosure must be mounted so that the airflow slots are at the top and bottom. Connect to controller as shown in **FIGURE 1**.
3. Program the zone type for the temperature output (T) as an "Extended Range" device: ER Outdoor Temperature (Type 85), ER Temperature (Type 86), or Temperature Alarm (Type 87) based on the application.
4. Program the zone type for the humidity output (H) as Humidity (Type 84).

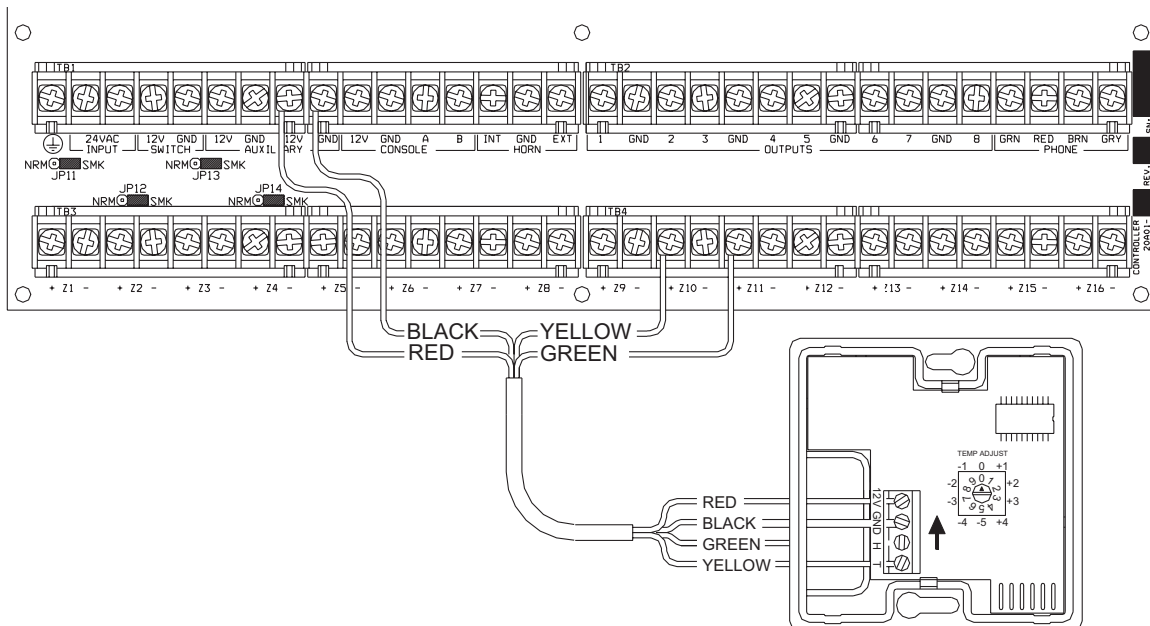
CALIBRATION

The temperature sensor in the Model 31A00-8 is shipped from the factory adjusted to its optimal setting. If however, the temperature reading seems to differ from the ambient temperature, you may adjust the output of the Model 31A00-8 to compensate for the difference. The current temperature output may be raised between 1° F and 4° F or lowered between 1° F and 5° F.

To make an adjustment, use the rotary switch labeled "Temp Adjust". Place a small screwdriver in the slot on the rotary switch and turn it to the appropriate setting 0-9.

By default, the rotary switch is set to "0" which means no change. A setting from 1-4 will adjust the current temperature by +1° F through +4° F, respectively. A setting from 5-9 will adjust the current temperature by -5° F through -1° F, respectively.

FIGURE 1 – MODEL 31A00-8 CONNECTIONS



WEB VERSION

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at **Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9** or by telephone at **1 800 405-5320**.

LEVITON LIMITED WARRANTY

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that products manufactured by Leviton under the Leviton brand name ("Product") will be free from defects in material and workmanship for the time periods indicated below, whichever is shorter: • **OmniPro II and Lumina Pro**: three (3) years from installation or 42 months from manufacture date. • **OmniLT, Omni Ite, and Lumina**: two (2) years from installation or 30 months from manufacture date. • **Thermostats, Accessories**: two (2) years from installation or 30 months from manufacture date. • **Batteries**: Rechargeable batteries in products are warranted for ninety (90) days from date of purchase. **Note**: Primary (non-rechargeable) batteries shipped in products are not warranted. **Products with Windows® Operating Systems**: During the warranty period, Leviton will restore corrupted operating systems to factory default at no charge, provided that the product has been used as originally intended. Installation of non-Leviton software or modification of the operating system voids this warranty. Leviton's obligation under this Limited Warranty is limited to the repair or replacement, at Leviton's option, of Product that fails due to defect in material or workmanship. Leviton reserves the right to replace product under this Limited Warranty with new or remanufactured product. **Leviton will not be responsible for labor costs of removal or reinstallation of Product.** The repaired or replaced product is then warranted under the terms of this Limited Warranty for the remainder of the Limited Warranty time period or ninety (90) days, whichever is longer. This Limited Warranty does not cover PC-based software products. **Leviton is not responsible for conditions or applications beyond Leviton's control. Leviton is not responsible for issues related to improper installation, including failure to follow written installation and operation instructions, normal wear and tear, catastrophe, fault or negligence of the user or other problems external to the Product.** To view complete warranty and instructions for returning product, please visit us at www.leviton.com.

COPYRIGHT AND TRADEMARK INFORMATION

This document and all its contents herein are subject to and protected by international copyright and other intellectual property rights and are the property of Leviton Manufacturing Co., Inc, its subsidiaries, affiliates and/or licensors. © 2013 Leviton Manufacturing Co., Inc. All rights reserved.

Use herein of third party trademarks, service marks, trade names, brand names and/or product names are for informational purposes only, are/may be the trademarks of their respective owners; such use is not meant to imply affiliation, sponsorship, or endorsement.

No part of this document may be reproduced, transmitted or transcribed without the express written permission of Leviton Manufacturing Co., Inc.