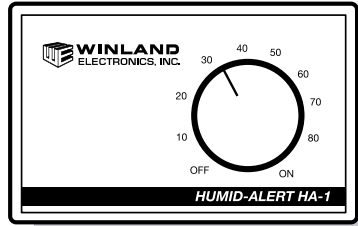




**WINLAND
ELECTRONICS, INC.**

HUMID-ALERT®

Economical Humidity Monitoring



HA-1

CONTENTS

This package contains:

- 1 HA-1
- 2 Wire nuts
- 2 Lead wires
- 1 Owner's Manual
- 1 Rubber mounting gasket (duct mounting only)
- 1 Adhesive mounting template/instructions (duct mounting only)
- 2 Mounting screws (for use with single-gang wall box)

SPECIFICATIONS

Power Requirement	None
Sensing Range	20-80% R.H. \pm 10% R.H.
Sensing Element	Nylon band
Response Time	TC = 12 min.
Output Contact Ratings	1A @ 24VAC/VDC, resistive
Operating Temperature	60 to 90° F (15 to 32° C); non-condensing environment Indoor use only.
Optimum Operating Temperature	70° F (21.1° C)
Accuracy:	\pm 10% R.H. @ 20-80% R.H., 77° F (25° C)
Weight	8 oz (0.23 kg)
Dimensions	5 x 3.18 x 2.43" (12.7 x 8.1 x 6.2 cm)
Case Material	ABS
Mounting	Wall, wall box, or duct surface

Tech Support 8:00am - 5:00pm Central Time

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GENERAL INFORMATION

The Humid-Alert® humidity sensor provides reliable monitoring of an area where a single high or low humidity limit is critical. The HA-1 monitors relative humidity from 20% to 80% R.H., activating an internal switch output when the critical limit is exceeded. This output can be used to activate alarm systems, telephone dialers, or other warning devices. This is a single set-point device; it can monitor for either a high or a low level, but not both. If additional monitoring (high and low) is required, Winland's EnviroAlert® line of products with humidity monitoring accessories is recommended.

THEORY OF OPERATION

The HA-1 senses the ambient room humidity using a nylon-banded sensing element. The HA-1 requires no power to operate and provides a SPDT contact output when the single set-point is met. Humidity should be expected to vary from room to room and from one area of a room to another. Ventilation and airflow will greatly affect relative humidity. The single set-point is established by using the adjustment knob on the face of the unit.

LOCATION

Choose a location for the Humid-Alert about five feet above the floor on an inside wall with average room temperature and relative humidity conditions.

NOTE: Temperatures above 90° F (32.2° C) will adversely affect the accuracy of the HA-1.

INSTALLATION

The HA-1 has three mounting options: horizontally positioned single-gang wall box, direct wall mount, and duct mount.

NOTE: Only use the rubber mounting gasket when mounting the HA-1 to a duct; use in any other application will limit natural airflow reducing the accuracy of the unit.

To install onto a single-gang wall box:

- 1) Run low voltage wiring from alarm panel, dialer, etc. to chosen location through the wall into the single-gang wall box. Plug openings in the sides and back of the box to prevent drafts from affecting the HA-1's operation.
- 2) Remove the HA-1 cover by prying with a screwdriver in the notch on the bottom of the case (Figure 1).
- 3) Mount the base of the unit onto the single gang wall box using the screws provided.
- 4) Make the wiring connections to the HA-1 assembly using lead wires and wire nuts supplied (Figure 2). Tuck wires into the bottom of the base, and then snap the cover assembly onto base (Figure 2).

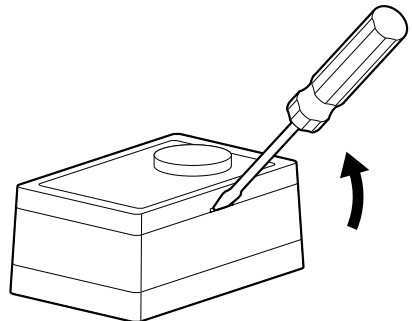


Figure 1

To install directly onto a wall:

NOTE: If installing on sheetrock, use sheetrock anchors and screws.

- 1) Drill a small hole in the wall and run low voltage wiring from alarm panel, dialer, etc. to the location chosen. Pull about six inches of wire through the hole. Plug the opening to prevent drafts from affecting the HA-1's operation.
- 2) Remove the HA-1 cover by prying with a screwdriver in the notch on the bottom of the case (Figure 1).
- 3) Mount the base of the unit onto the wall using the hardware provided.

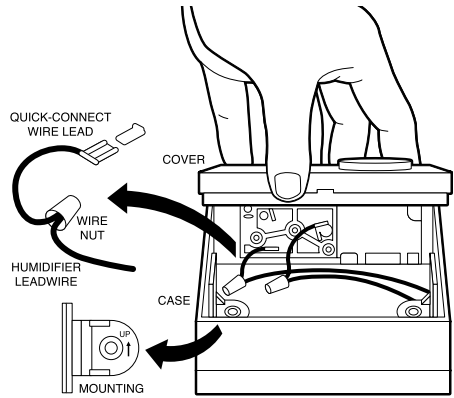


Figure 2

- 4) Make the wiring connections to the HA-1 assembly using lead wires and wire nuts supplied (Figure 2) Tuck wires into the bottom of the base, and then snap the cover assembly onto base (Figure 2).

To install onto a duct: Follow instructions printed on the adhesive mounting template.

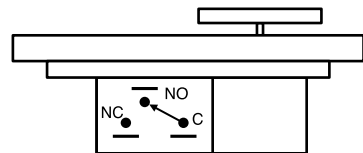
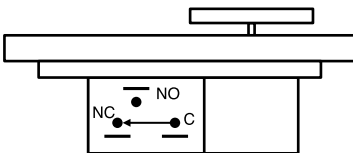
Setting the Humidity Limit

Select an acceptable high or low humidity limit by turning the adjustment knob on the face of the unit. For all installation options it is recommended that once the unit is installed the current ambient R.H. level is determined prior to setting the HA-1 high or low limit. To determine the current R.H. level, turn the adjustment knob on the face of the unit until you hear a "click". The point at which you hear the output contact change is the current relative humidity level. Always allow enough time for the sensor to acclimate to current room conditions before considering the reading to be accurate.

NOTE: The HA-1 has a built-in 2-3% hysteresis (delay). Therefore, the unit will not set and reset at exactly the same point. This spread will amount to approximately 2-3% R.H. of the alarm set point.

If protecting against low humidity, assume continuity between C and N.C. under non-alarm conditions. When the actual humidity drops below the set point, C to N.C. will then be open. To test this configuration with the limit set below the current reading, rotate the knob clockwise until the output contact changes.

If protecting against high humidity, assume continuity between C and N.O. under non-alarm conditions. When the actual humidity rises above the set point, C to N.O. will then be open. To test this configuration with the limit set above the current reading, rotate the knob counterclockwise until the output contact changes.



To insure proper operation, test weekly.

FREQUENTLY ASKED QUESTIONS

Does this require power to operate?

No. The HA-1 does not require power to operate.

What is the contact rating output?

The contact rating output for the HA-1 is 1A @ 24VAC/VDC, resistive.

How can I monitor for both high and low humidity levels?

The HA-1 will monitor only one limit, either high or low. The Winland EnviroAlert® products are designed to monitor for both high and low limits. Several configuration options are available:

1. Use the EnviroAlert® EA800-ip with the wireless humidity sensor (EA-WHS).
2. Use the EnviroAlert® EA800 with the wireless humidity sensor (EA-WHS).
3. Use the EnviroAlert® EA800-ip with the wired HA-III+.
4. Use the EnviroAlert® EA800 with the wired HA-III+.
5. Use the EnviroAlert® EA400-12 with the wired HA-III+.
6. Use the EnviroAlert® EA200-12 with the wired HA-III+.

For more information visit www.winland.com.

ONE YEAR LIMITED WARRANTY

Winland Electronics, Inc. ("Winland") warrants to the end user/purchaser that each product of its manufacture shall be free from defects in material and factory workmanship for a period of one year from the date of purchase, when properly installed and operated under normal conditions according to Winland's instruction.

Winland's obligation under this warranty is limited to correcting, without charge, at its factory any part or parts thereof which shall be returned to the factory, by the original purchaser, transportation charges prepaid, within one year of the date of purchase and which upon examination, shall disclose to Winland's satisfaction to have been originally defective. Correction of such defects by repair to, or supplying replacements for, defective parts shall constitute fulfillment of all Winland's obligations to purchaser under this limited warranty. Repair service performed by Winland after one year from date of purchase will be for a reasonable service charge.

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