



# HUMID•ALERT

Relative Humidity Sensor



**This Package Contains:**

- 1 HA-4
- 1 Mounting Kit (2 screws and 2 anchors)
- 1 Product Guide

**Features:**

- Monitors for the ambient room humidity from 5 to 95% RH with  $\pm 3\%$  accuracy between 25 to 75% RH
- May be used in cooler/freezer environments
- Maximum cable run of 1,000' (304.8m) [18-22 AWG twisted pair]

**Note:**

- To clean the outside of the HA-4, use a soft dry cloth. Do NOT use liquid cleaners, solvents, abrasive cleaners, or compressed air.
- Do NOT open product enclosure, it will void warranty.
- For Winland environmental compliance please visit: <http://environmental-compliance.winland.com/>
- Test device weekly to ensure proper operation.

**Environmental Conditions:**

- Overvoltage category OVC I
- Pollution degree 2
- Ingress Protection IP21

**Specifications:**

Power Requirements	12V DC or 24V DC, 0.21W Max
Sensing Element	Capacitive / IC
Sensing Range	5 to 95% RH at 77 °F (25 °C)
Accuracy	$\pm 3\%$ accuracy between 25 to 75% RH at 77 °F (25 °C)
Response Time	TC < 12 minutes
Operating Temperature	-40 to +140 °F (-40 to +60 °C) Indoor use only
Weight	5.3oz (150.0g)
Dimensions	3.9" x 2.9" x 1.7" (9.9cm x 7.4cm x 4.3cm)
Mounting	Surface mount
Case Material	ABS



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[product.guide.ha-4.winland.com](http://product.guide.ha-4.winland.com)  
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## General Information:

The Winland HA-4 is a sensor used for monitoring remote locations for rising or falling rates of humidity. The HA-4 is designed and approved to be used with the EnviroAlert® and the EnviroAlert Professional® product lines of monitoring devices including the EA200-12/24, EA400-12/24, EA800-ip, and the EAPro-GTWY.

## Theory of Operation:

The HA-4 senses the ambient room humidity electronically using a capacitive sensing element. 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.

When programming the HA-4 sensor on the monitoring device, the initial reading you receive should be considered a base reading. Allow at least 30 minutes of operation for the sensor to stabilize prior to setting the high and low limits. It is necessary for the temperature of the sensor to stabilize before the readings are considered accurate. The outputs of Winland's electronic monitoring devices react within seconds of a limit being exceeded. A sudden burst of humid air from a door opening or a ventilation system starting, could cause a brief change in the humidity reading. To avoid false alarms, a time delay should be programmed into the EA200-12/24, EA400-12/24, EA800-ip, and the EAPro-GTWY. It is strongly recommended to utilize a time delay unless your application requires instant notification.

## Installation:

The HA-4 sensor should be flush mounted directly to a flat surface like a wall. The sensor should be located in an area free from drafts, heat sources, and direct sunlight. It is recommended that the sensor is mounted at a height of 4' to 5' (1.2m to 1.5m) from the floor.

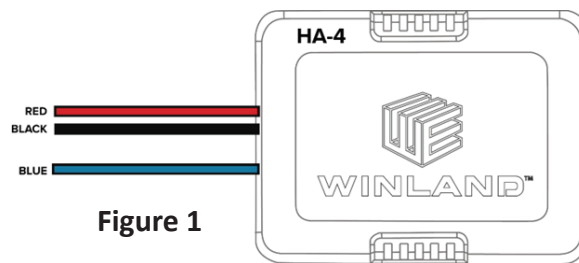


Figure 1

Wire the HA-4 to your EA200-12/24, EA400-12/24, EA800-ip or EAPro-GTWY monitoring device using the following wiring scheme (See Figures 2 and 3). Extend the length of the probe wiring up to 1,000' (304.8m) using 18-22 AWG twisted pair.

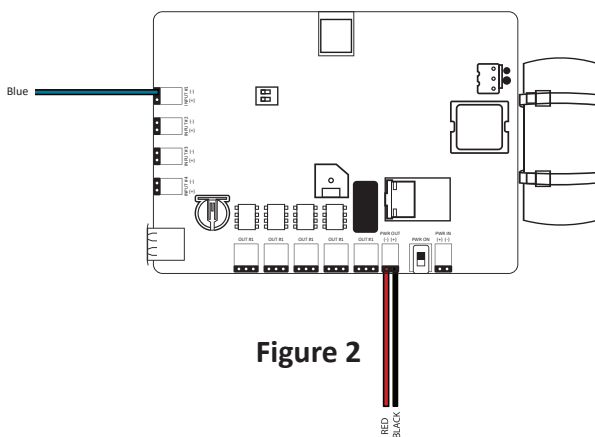


Figure 2

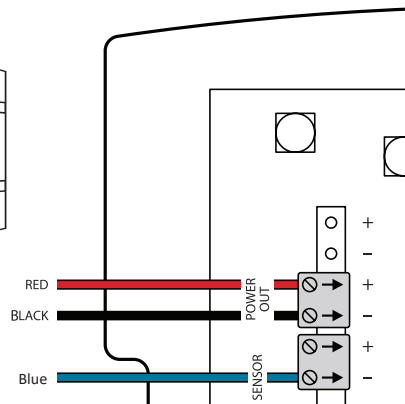


Figure 3

(Shows typical use with an EA200-12/24 and EA400-12/24 device)

- Red Wire = POSITIVE
- Black Wire = NEGATIVE
- Blue Wire = Wire to NEGATIVE (-) terminal on sensor input of desired device:
  - EA200-12/24, EA400-12/24, EA800-ip, or EAPro-GTWY (see figure 2 & 3)
  - Sensor Input POSITIVE (+) is not used.



Radio Frequency Interference Requirements: 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 received, including interference that may cause undesired operation.

### **WARRANTY AND SERVICE INFORMATION**

Winland Electronics, Inc. ("Winland") warrants to the original purchaser from Winland that each product of Winland's that it manufactures shall be free from defects in material and factory workmanship for a period of one (1) year from the date of purchase, when properly installed and operated under normal conditions according to Winland's instruction.

Winland's obligation under this limited warranty is limited to correcting the product without charge, at its factory any part or parts thereof which are returned, transportation charges prepaid, to the factory within one year of the date of purchase subject to Winland's examination showing to Winland's satisfaction to be covered by this warranty.

Product returns will not be accepted unless a Return Material Authorization has been issued by Winland, which is subject to purchaser's identification of the purchase order number and product serial number. UNAUTHORIZED RETURN SHIPMENT OR SHIPMENT CONTRARY TO WINLAND'S WRITTEN INSTRUCTIONS WILL VOID THIS LIMITED WARRANTY. Correction of such defects by repair, replacement, or refund of the amount paid for the product, at Winland's option, shall constitute fulfillment of all Winland's obligations under this limited warranty. Repaired and replacement parts will be warranted for the remainder of the original product warranty. Repairs not covered by this limited warranty may be offered by Winland for a charge.

This limited warranty shall not apply to any of Winland's products which have been subject to misuse, negligence, accident, or which have been repaired or altered outside of Winland's factory.

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