



HEW

HEW Series

Economy Wall Mount Humidity Sensors

Product Overview

HEW Economy Series wall mount humidity transmitters offer high performance in an easy-to-install housing at an affordable price. The thin-film capacitive sensor element provides high accuracy and performance, great long-term stability, and full recovery from saturation. Temperature sensing options are also available.

The wall housing uses sophisticated thermal analysis techniques for optimum airflow. It is ideal for schools and other applications requiring exceptional durability and a discrete appearance. All Economy models come with a standard one-year warranty.

Product Identification

	Accuracy	Output		Temp.	Sensor Type	Temp. Cert.
HEW	<input type="checkbox"/>	<input type="checkbox"/>	S	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 = 2%	M = 4-20mA		T = Temp	A = Temp. Transmitter	Blank = None
	3 = 3%	V = 0-5 Vdc/0-10 Vdc		X = No Temp	B = 100R Platinum, RTD	1 = 1 pt cal*
	5 = 5%			(Stop here)	C = 1k Platinum, RTD	2 = 2 pt cal*

**Not available with W and Y high-accuracy thermistors.*

Examples:

With Temp:

HEW ☐ ☐ M ☐ S ☐ T ☐ C

Without Temp:

HEW ☐ ☐ V ☐ S ☐ X Stop Here

A = Temp. Transmitter
B = 100R Platinum, RTD
C = 1k Platinum, RTD
D = 10k T2, Thermistor
E = 2.2k, Thermistor
F = 3k, Thermistor
G = 10k CPC Thermistor
H = 10k T3, Thermistor
J = 10k Dale, Thermistor
K = 10k with 11k shunt, Thermistor
M = 20k NTC, Thermistor
N = 1800 ohm TAC, Thermistor
R = 10k US, Thermistor
S = 10k 3A 221 Thermistor
T = 100k, Thermistor
U = 20k "D", Thermistor
W = 10k T2 high accuracy, Thermistor
Y = 10k T3 high accuracy, Thermistor

Specifications

INPUT POWER	
Voltage Model	Class 2; 12 to 24 Vdc or 24 Vac
mA Model	Class 2; 12 to 24 Vdc
AC Voltage Tolerance	±10%
AC Frequency	50/60 Hz
Max. Inrush Current after 1 msec (mA version)	25 mA
OUTPUT POWER	
mA Output	4 to 20mA, 2-wire, not polarity sensitive
mA Max. Loop Resistance	500 Ω at 24 Vdc input voltage; 250 Ω at 12 Vdc input voltage



WARNING



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E or CSA Z462.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.

Failure to follow these instructions can result in death, serious injury or equipment damage.

This product is intended for use in HVAC and building environmental control applications.

It is not intended for direct medical monitoring of patients. Read and understand these instructions before installing this product.

The installer is responsible for all applicable codes.

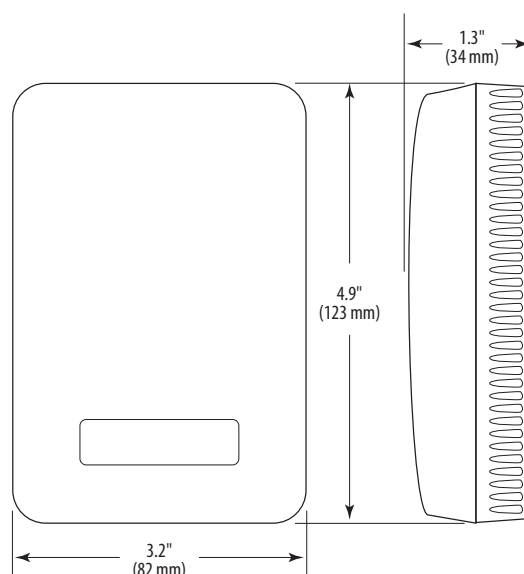
If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired. No responsibility is assumed by the manufacturer for any consequences arising out of the use of this material.

Specifications (cont.)

Voltage Output	0 to 5 V or 0 to 10 V (jumper selectable)
Voltage Min. Load Resistance	5 k Ω
Voltage Min. Sinking Current	0.2 mA
RH TRANSMITTER	
RH Element	Digitally profiled thin-film capacitive, non-removable
Accuracy*	$\pm 2\%$, 3%, or 5% (10 to 90% RH, 20 to 30 °C)
Temperature Effect (Outside 20° to 30°C)	$\leq 0.1\%$ RH per °C
Response Time (to 90% change at 20°C)	110 sec
Annual Drift	$\leq 1\%$
Output Scaling	0 to 100% RH
TEMPERATURE TRANSMITTER OPTION	
Active Output Accuracy	$\pm 0.5^\circ\text{C}$ ($\pm .9^\circ\text{F}$)
Active Output Temp Scaling	10 to 35 °C (50 to 95 °F)
Self-Heating Error (Resistive Temperature Only)	$\leq \pm 0.5^\circ\text{C}$ at 20 to 30 °C (68 to 86 °F); $\leq \pm 0.75^\circ\text{C}$ outside of 20 to 30 °C (68 to 86 °F)
OPERATING ENVIRONMENT	
Operating Temperature	0 to 50 °C (32 to 122 °F)
Operating Humidity	0 to 100% RH non-condensing (Unit will recover from saturation)
HOUSING	
Material	ABS plastic with UL V-0 5VB Flame Class
Mounting Holes	US and European junction box
Mounting Location	For indoor use only. Not suitable for wet locations.
WARRANTY	
Limited Warranty	1 year
COMPLIANCE INFORMATION	
Agency Approvals	EMC Conformance: Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU

* Humidity sensor measurement uncertainty should include: accuracy, hysteresis, temperature coefficient and stability.

Dimensions

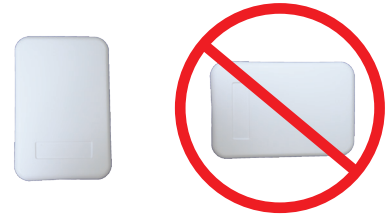
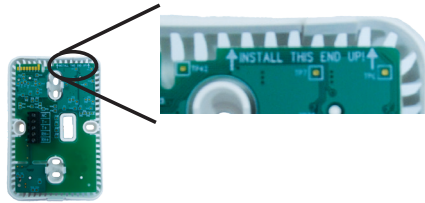


Installation

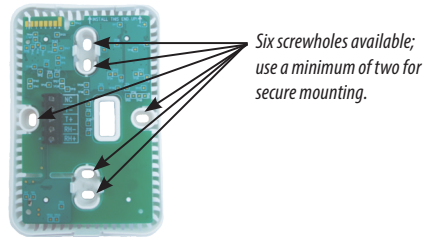
1. Remove the cover by pressing the tab on the bottom of the sensor while pulling outward on the bottom edge of the cover.



2. Position the sensor vertically on the wall, 4 ½ feet (1.5 m) above the floor. Place so that the “Install This End Up” statement on the board is in the upper right corner.

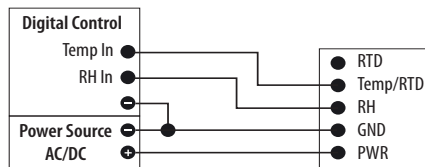


3. Mount the backplate onto the wall using the screws provided.

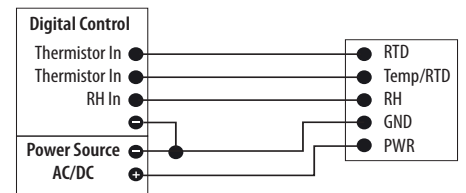


4. Wire the backplate.

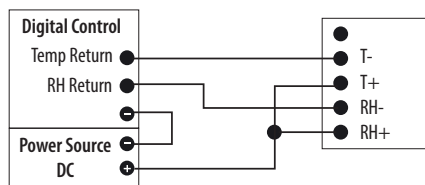
0–5V/0–10V Versions, No Thermistor



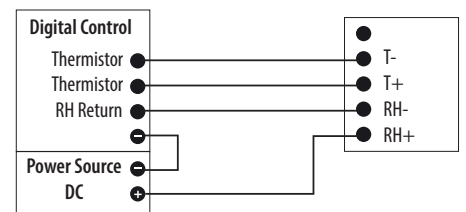
0–5V/0–10V Versions, Thermistor



4–20mA Versions, No Thermistor



4–20mA Versions, Thermistor



5. Install the cover and snap into place.

