

# Standard Wall Humidity Sensors

# **HEW Series**





HEW

# 2%, 3%, and 5% Accuracies

# **FEATURES**

- Monitor humidity and temperature with a single device...reduces installation costs
- Semiconductor temperature transmitter, or popular thermistor/RTD sensors available
- Housing is low-profile...perfect for schools and museums

# **DESCRIPTION**

**HEW Standard 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 was created using sophisticated thermal analysis techniques for optimum airflow. It is ideal for schools and other applications requiring exceptional durability and a discrete appearance. All Standard models come with a standard one-year warranty.

# **APPLICATIONS**

- HVAC economizer control
- Managing energy systems
- Facilitating ASHRAE standards for environmental control

### **SPECIFICATIONS**

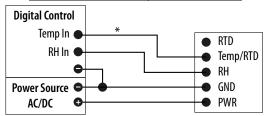


INPUT POWER	
Voltage Model	Class 2; 12-24VDC or 24VAC
mA Model	Class 2; 12-24VDC
AC Voltage Tolerance	±10%
AC Frequency	50-60 Hz
Max. Inrush Current after 1 msec (mA version)	25mA
ОИТРИТ	
mA Output	4-20mA, 2-wire, not polarity sensitive
mA Max. Loop Resistance	$500\Omega$ at 24VDC input voltage; $250\Omega$ at 12VDC input voltage
Voltage Output	0-5V or 0-10V (jumper selectable)
Voltage Min. Load Resistance	5kΩ
Voltage Min. Sinking Current	0.2mA
HUMIDITY	
RH Element	Digitally profiled thin-film capacitive, non-removable
Accuracy	±2%, 3%, or 5% (10-90% RH, 20° to 30°C)
Temperature Effect (Outside 20° to 30°C)	≤0.1% RH per °C
Response Time (to 90% change at 20°C)	110 sec
Annual Drift	≤1%
Output Scaling	0-100% RH
TEMPERATURE OPTION	
Active Output Accuracy	±0.5°C (±.9°F)
Active Output Temp Scaling	10° to 35°C (50° to 95°F)
Self-Heating Error (Resistive temperature only)	≤±0.5°C at 20° to 30°C (68° to 86°F); ≤±0.75°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	0-100% RH noncondensing (Unit will recover from saturation)
HOUSING	
Material	ABS plastic with UL V-0 5VB Flame Class
Mounting Holes	US and European junction box

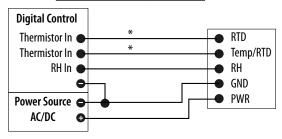
EMC Conformance: Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

# **WIRING DIAGRAMS**

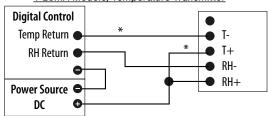
#### 0-5V/0-10V Models, Temperature Transmitter



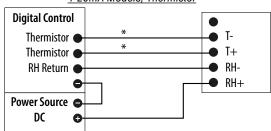
#### 0-5V/0-10V Models, Thermistor



#### 4-20mA Models, Temperature Transmitter



# 4-20mA Models, Thermistor



US or EU

s

Accuracy

HEW

# ORDERING INFORMATION

4-20mA

<u>Output</u>

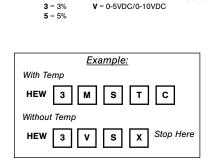


Temp.

X = No Temp

(Stop here)





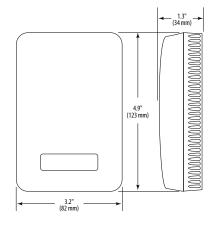
# Sensor Type



- 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, ThermistorJ = 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", ThermistorW = 10k T2 high accuracy, Thermistor
- Y = 10k T3 high accuracy, Thermistor
- Z = 10k E1, Thermistor

# **DIMENSIONAL DRAWING**



<sup>\*</sup>Temperature models