Standard Duct Humidity Sensors

2%, 3%, and 5% Accuracies

IDEAL FOR BID SPEC!

DESCRIPTION

HED Standard Series duct 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 duct-mounted HED includes a rugged all plastic housing with a tool-less gasketed entry lid, large cage clamp terminal blocks, and sturdy ABS material. All Standard models come with a standard one-year warranty.

FEATURES

- Monitor humidity and temperature with a single device...reduce installation costs
- Semiconductor, temperature transmitter, or popular thermistor/RTD sensors available
- Tool-less gasketed entry lid...no more lost screws
- Large cage clamp terminal blocks...easy hoop-up with no wire nuts
- Circuitry is embedded in the probe for durability and protection

APPLICATIONS

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

HUMIDITY

SPECIFICATIONS

1 Year Warranty

Input Power:

Input Power, Voltage Version	12-24VDC or 24VAC
Input Power, mA Version	12-24VDC
AC Voltage Tolerance	±10%
AC Frequency	50-60 Hz
Max. Inrush Current after 1 msec (mA version)	25mA

Output Power:

mA Output	4-20mA, 2-wire, not polarity sensitive
mA Max. Loop Resistance	500Ω at 24VDC input voltage; 250Ω 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:

Active Output Accuracy	±0.5°C
Active Output Temperature Scaling	Type 1: -40° to 50°C (-40° to 122°F); Type 2: 0° to 50°C (32° to 122°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	-40° to 50°C (-40° to 122°F)
Operating Humidity	0-100% RH noncondensing (Unit will recover from saturation)

Housing:

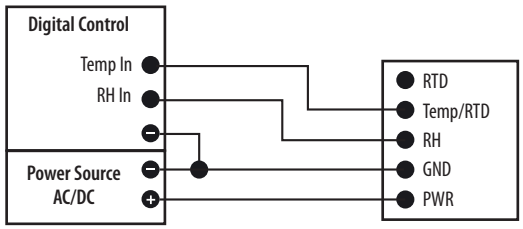
Material	ABS plastic with UL V-0 5VA Flame Class

EMC Conformance: EN61000-6-3:2007+A1:2011 Class B; EN61326-1:2006 Class B; EN61000-6-1:2007
Meets UL requirements for plenum rating.

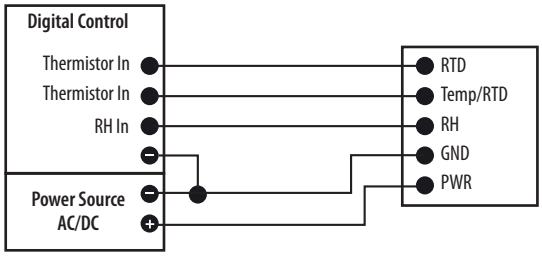
VERIS INDUSTRIES

APPLICATION/WIRING DIAGRAMS

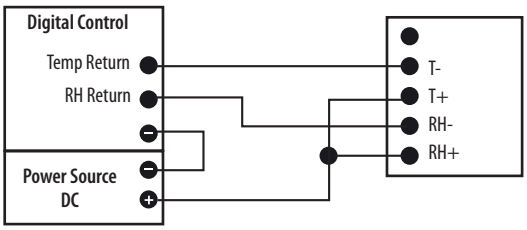
0–5V/0–10V Models, No Thermistor



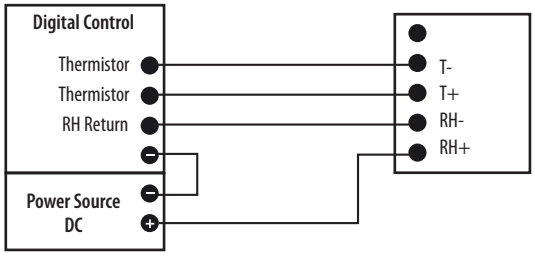
0–5V/0–10V Models, Thermistor



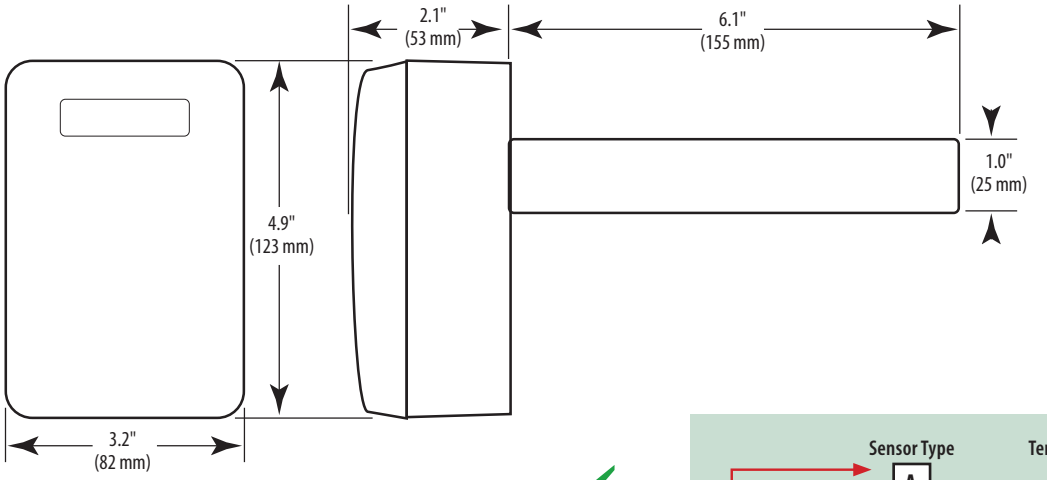
4-20mA Models, No Thermistor



4-20mA Models, Thermistor



DIMENSIONAL DRAWING



ORDERING INFORMATION

HED [Accuracy] [Output] [US or EU] [Temp.]

Accuracy
- **2** = 2%
- **3** = 3%
- **5** = 5%

Output
- **M** = 4-20mA
- **V** = 0-5VDC/0-10VDC

US or EU
- **S** = Standard

Temp.
- **T** = Temp
- **X** = No Temp (Stop here)

Sensor Type [A]
- = Temp. transmitter

Temp Range
- **1** = -40° to 50°C (-40° to 122°F)
- **2** = 0° to 50°C (32° to 122°F)

Temp Cert
- **Blank** = None
- **1** = 1 pt cal
- **2** = 2 pt cal

Sensor Type
- **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
- **Z** = 10k E1, Thermistor

Temp Cert
- **Blank** = None
- **1** = 1 pt cal
- **2** = 2 pt cal

Example:

With Temp

HED | 3 | M | S | T | C

Without Temp

HED | 3 | V | S | X | *Stop Here*

HUMIDITY