HED SERIES

2%, 3%, and 5% Accuracies

HED

RH & temperature

Monitor humidity and temperature with a single device… reduces installation costs

Easy hook-up

Large cage clamp terminal blocks…easy hook-up with no wire nuts

Sensor options

Semiconductor temperature transmitter, or popular thermistor/RTD sensors available

Embedded circuitry

Circuitry is embedded in the probe for durability and protection

No lost screws

Tool-less gasketed entry lid

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.

APPLICATIONS

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

SPECIFICATIONS

INPUT POWER	
Voltage Version	Class 2; 12 to 24 Vdc or 24 Vac
mA Version	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	
mA Output	4 to 20 mA, 2-wire, not polarity sensitive
mA Max. Loop Resistance	500 Ω at 24 Vdc input voltage; 250 Ω at 12 Vdc input voltage
Voltage Output	0 to 5 V or 0 to 10 V (jumper selectable), observe polarity
Voltage Min. Load Resistance	5 kΩ
Voltage Min. Sinking Current	0.2 mA
HUMIDITY	
RH Element	Digitally profiled thin-film capacitive, non-removable
Accuracy	±2%, 3%, or 5% (10 to 90% RH, 20 to 30 °C)
Temp 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 to 100% RH
TEMPERATURE OPTION	
Active Output Accuracy	±0.5 °C (±.9 °F)
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 to 100% RH non-condensing (unit will recover from saturation)
HOUSING	
Material	ABS plastic with UL V-0 5 VA Flame Class
WARRANTY	
Limited Warranty	1 year

AGENCY APPROVALS

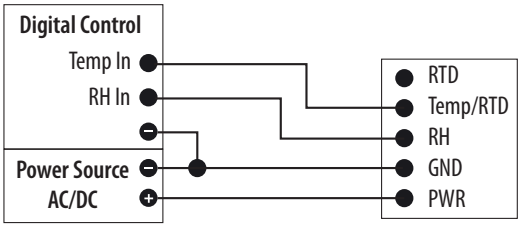
CE*

*The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

EMC Conformance: Low Voltage Directive 2014/35/EU and EMC Directive 2014/30/EU. Meets UL requirements for plenum rating.

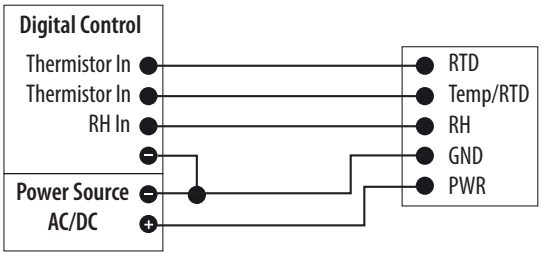
0-5V/0-10V MODELS, TEMPERATURE TRANSMITTER

Wiring Diagram



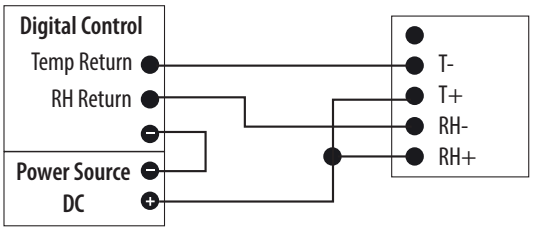
0-5V/0-10V MODELS, THERMISTOR

Wiring Diagram

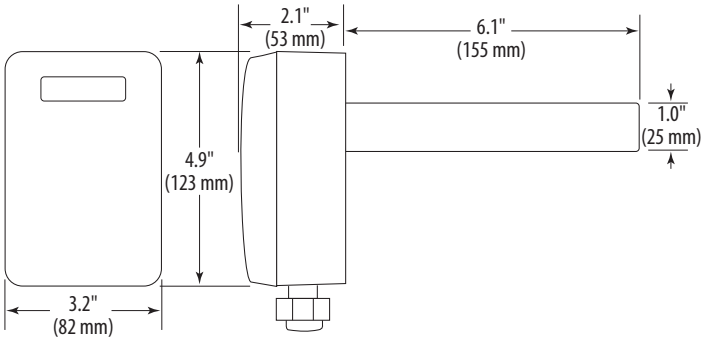


4-20 mA MODELS, TEMPERATURE TRANSMITTER

Wiring Diagram

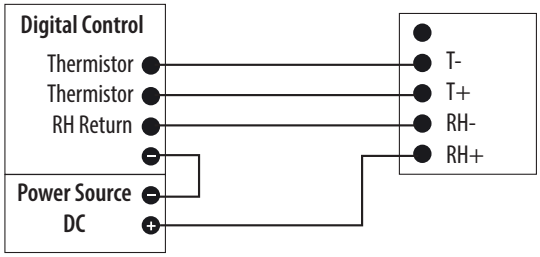


DIMENSIONAL DRAWING



4-20 mA MODELS, THERMISTOR

Wiring Diagram



ORDERING INFORMATION

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

Accuracy
2 = 2%
3 = 3%
5 = 5%

Output
M = 4 to 20 mA
V = 0-5/0-10 Vdc

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

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

Examples:

HED	3	M	S	T	C
HED	3	V	S	X	

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