HED Series

2%, 3%, AND 5% ACCURACIES

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 hook-up with no wire nuts
- Circuitry is embedded in the probe for durability and protection

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 toolless 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

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>INPUT POWER</th>
<th>OUTPUT</th>
<th>HUMIDITY</th>
<th>TEMPERATURE OPTION</th>
<th>OPERATING ENVIRONMENT</th>
<th>HOUSING</th>
<th>WARRANTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Version</td>
<td>Class 2; 12 to 24 Vdc or 24 Vac</td>
<td>mA Output</td>
<td>4 to 20 mA, 2-wire, not polarity sensitive</td>
<td>RH Element</td>
<td>Active Output Accuracy</td>
<td>Limited Warranty</td>
<td></td>
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<tr>
<td>mA Version</td>
<td>Class 2; 12 to 24 Vdc</td>
<td>mA Max. Loop Resistance</td>
<td>500 Ω at 24 Vdc input voltage; 250 Ω at 12 Vdc input voltage</td>
<td>Digitally profiled thin-film capacitive, non-removable</td>
<td>±0.5 °C (±0.9 °F)</td>
<td>1 year</td>
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<tr>
<td>AC Voltage Tolerance</td>
<td>±10%</td>
<td>Voltage Output</td>
<td>0 to 5 V or 0 to 10 V ( jumper selectable, observe polarity</td>
<td>Accuracy</td>
<td>Active Output Temperature Scaling</td>
<td></td>
<td></td>
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<tr>
<td>AC Frequency</td>
<td>50/60 Hz</td>
<td>Voltage Min. Load Resistance</td>
<td>5 kΩ</td>
<td>±2%, 3%, or 5% (10 to 90% RH, 20 to 30 °C)</td>
<td>Type 1: -40 to 50 °C (-40 to 122 °F);</td>
<td></td>
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<tr>
<td>Max. Inrush Current after</td>
<td>25 mA</td>
<td>Voltage Min. Sinking Current</td>
<td>0.2 mA</td>
<td>Temp Effect (Outside 20° to 30°C)</td>
<td>Type 2: 0 to 50 °C (32 to 122 °F)</td>
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<tr>
<td>1 msec (mA version)</td>
<td></td>
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<td></td>
<td>≤±0.1% RH per °C</td>
<td>Self-Heating Error (Resistive Temperature Only)</td>
<td>≤±0.75 °C outside of 20 to 30 °C (68 to 86 °F)</td>
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<td></td>
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<td>Response Time (to 90% change at 20°C)</td>
<td>110 sec</td>
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<td></td>
<td></td>
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<td>Annual Drift</td>
<td>≤1%</td>
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<td></td>
<td>Output Scaling</td>
<td>0 to 100% RH</td>
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For more information on how Veris products can help optimize your systems:
Call: Toll-free 800.354.8556 | Intl. +1 503. 598.4564 Email: sales@veris.com | intl@veris.com

TM

HED Series
Standard Duct Humidity Sensors

HQ0001719.H   0116
**WIRING DIAGRAMS**

0 to 5V/0 to 10V Models, Temperature Transmitter

- Digital Control
- Temp In
- RH In
- Power Source
- AC/DC
- RTD
- Temp/RTD
- RH
- GND
- PWR

0 to 5V/0 to 10V Models, Thermistor

- Digital Control
- Thermistor In
- Thermistor In
- RH In
- Power Source
- AC/DC
- RTD
- Temp/RTD
- RH
- GND
- PWR

4 to 20 mA Models, Temperature Transmitter

- Digital Control
- Temp Return
- RH Return
- Power Source
- DC
- T-
- T+
- RH-
- RH+

4-20mA Models, Thermistor

- Digital Control
- Thermistor
- Thermistor
- RH Return
- Power Source
- DC
- T-
- T+
- RH-
- RH+

*Temperature models.

**DIMENSIONAL DRAWING**

- 2.1" (53 mm)
- 6.1" (155 mm)
- 4.9" (123 mm)
- 3.2" (82 mm)
- 1.0" (25 mm)

**ORDERING INFORMATION**

- Sensor Type
- Temp. Range
- Temp Cert

- **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

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

- **Output**
  - US or EU
  - Standard

- **Temp.**
  - M = 4 to 20 mA
  - V = 0-5/0-10 Vdc
  - T = Temp
  - X = No Temp

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

- **HED**
  - 01 to 09

- **Ordering Information**
  - 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 = 10k, Thermistor
  - U = 20k “D”, Thermistor
  - W = 10k T2 high accuracy, Thermistor
  - Y = 10k T3 high accuracy, Thermistor
  - Z = 10k E1, Thermistor