HUMIDITY/Temperature Transmitter

Series RHP

Humidity/temperature Transmitter combine the voltage or current humidity transmitter output with a passive temperature thermometer or RTD output. Featuring polymer capacitance humidity sensors, models are available with 2%, 3% or 5% accuracies. Duct mounted transmitters are available with an optional output. Featuring polymer capacitance humidity sensors, models are available with current humidity transmitter output with a passive temperature thermistor or RTD.

Features/Benefits
- 2%, 3%, or 5% accuracy models
- Optional LCD display on duct mount models
- 2%, 3%, or 5% accuracy models
- LCD Display
- Passive Temperature Outputs, Sintered Filter Options

Applications
- Air economizers
- Outdoor temperature and relative humidity reference
- Pool room humidity monitoring
- Air economizers
- Outdoor temperature and relative humidity reference
- Pool room humidity monitoring

Model Chart

<table>
<thead>
<tr>
<th>Example</th>
<th>RHP</th>
<th>2D</th>
<th>1ALCD</th>
<th>RHP-2D1A-LCD</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>RHP</td>
<td>2D</td>
<td>1A-LCD</td>
<td>RHP-2D1A-LCD</td>
<td>Price</td>
</tr>
<tr>
<td>Accuracy</td>
<td>2%</td>
<td>3%</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing Type</td>
<td>D</td>
<td>M</td>
<td>O</td>
<td>S</td>
<td>R</td>
</tr>
<tr>
<td>RH Output</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature Sensor</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Options</td>
<td>LCD</td>
<td>NIST</td>
<td>NIST Traceable Calibration Certificate</td>
<td>Price</td>
<td></td>
</tr>
</tbody>
</table>

*Use OSA with sintered filter models when purchasing Series RHRS radiation shield separately.

Specifications

Relative Humidity Range: 0 to 100% RH.
Temperature Range: -40 to 140°F (-20 to 60°C).
Accuracy, RH: RHP-XX ±3% 10-90% RH @ 25°C; RHP-3XXX ±3% 20-80% RH @ 25°C; RHP-5XXX ±5% 20-80% RH @ 25°C.
Accuracy, Thermistor Temp Sensor: ±0.2°C @ 25°C (±0.36°F @ 77°F).
Accuracy, RTD Temp Sensor: DIN Class B: ±0.3°C @ 0°C (±0.54°F @ 32°F).
Accuracy, Solid State Band Gap: ±0.9°F @ 77°F (±0.3°C @ 25°C).
Hysteresis: ±1%.
Repeatability: ±0.1% typical.
Temperature Limits: -20 to 140°F (-28.9 to 60°C); 0 to 100°F (-17.8 to 37.8°C); 40 to 90°F (4.4 to 32.3°C).
Compensated Temperature Range: -4 to 140°F (-20 to 60°C).

4 to 20 mA Loop Powered Models: Power requirements: 15 to 35 VDC or 15 to 29 VAC; Output signal: 4 to 20 mA.

0-5/10V Output Models: Power requirements: 15 to 35 VDC or 15 to 29 VAC; Output signal: 0 to 10 V @ 5 mA max.

Solid State Band Gap Temperature Sensor Output Ranges: Switch selectable, -20 to 140°F (-28.9 to 60°C); 0 to 100°F (-17.8 to 37.8°C); 40 to 90°F (4.4 to 32.3°C); -4 to 140°F (-20 to 60°C).

Response Time: 15 s.

Electrical Connections: Removable screw terminal block.

Conduit Connection: Duct mount: 1/2” NPS; OSA: 1/2” (22.3 mm).

Drift: <1% RH/year.

RH Sensor: Capacitance polymer.


Enclosure: Duct mount: PBT; OSA: Polycarbonate.

Enclosure Rating: Duct mount: NEMA 4X (IP66) for housing only; OSA: NEMA 4X (IP66).

Display: Duct mount only, optional 2-line alpha numeric, 8 characters/line.

Display Resolution: RH: 0.1%; 0.1°F (0.1°C).

Weight: Duct mount: 0.16 lb (.73 kg); OSA: 1 lb (.45 kg).

Agency Approvals: CE.