**HUMIDITY/TEMPERATURE TRANSMITTERS**

Passive Temperature Outputs, Sintered Filter Options

**SERIES RHP**

**CALIBRATION SERVICES AVAILABLE**

The Series RHP Humidity/Temperature Transmitters combine the voltage or current humidity transmitter output with a passive temperature thermistor 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 two-line alpha numeric LCD display.

**FEATURES/BENEFITS**

- 2%, 3%, or 5% accuracy models
- Optional LCD display on duct mount models
- Radiation shield option for outdoor installation in direct sunlight

**APPLICATIONS**

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

**MODEL CHART**

<table>
<thead>
<tr>
<th>Series</th>
<th>RHP</th>
<th>D</th>
<th>A-LCD</th>
<th>RHP-2D1A-LCD</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>2%</td>
<td>3%</td>
<td>5%</td>
<td>2% accuracy</td>
<td>5% accuracy</td>
</tr>
<tr>
<td>Housing Type</td>
<td>D</td>
<td>O</td>
<td>S</td>
<td>R</td>
<td>Duct mount with plastic hydrophobic filter</td>
</tr>
<tr>
<td>RH Output</td>
<td>4-20 mA</td>
<td>0-10 V</td>
<td>0-5 VDC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Sensor</td>
<td>0°C</td>
<td>-20°C to 140°F</td>
<td>-28.9 to 60°C</td>
<td>0 to 100°F</td>
<td>-17.8 to 37.8°C</td>
</tr>
<tr>
<td>Options</td>
<td>LCD</td>
<td>LCD display</td>
<td>-</td>
<td>-</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 (-40 to 60°C).
- **Accuracy, RH:** RHP-2XXX ±2% 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:** -40 to 176°F (-40 to 80°C).
- **Compensated Temperature Range:** -4 to 140°F (-20 to 60°C).
- **4-20 mA Loop Powered Models:** Power requirements: 10-35 VDC; Output signal: 4-20 mA.
- **0-5/10 V Output Models:** Power requirements: 15-35 VDC or 15-29 VAC; Output signal: 0-10 V @ 5 mA max.
- **Solid State Band Gap Temperature Sensor Output Ranges:** Switch selectable, -40 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.
- **Temperature Sensor:** Types 1, 2, 3: Solid state band gap; Curves A, B, C: Thermistor. Curves D, E: Platinum RTD DIN 385.
- **Enclosure:** Duct mount: PBT; OSA: Polycarbonate.
- **Enclosure Rating:** Duct mount: NEMA 4P (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: 6.16 lb (.3 kg); OSA: 1 lb (.45 kg).
- **Agency Approvals:** CE.

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-RHP-FC</td>
<td>Replacement plastic hydrophobic filter</td>
<td>$5.00*</td>
</tr>
<tr>
<td>A-RHP-RT</td>
<td>Retrofit tool for fitting O-ring on RHP-D/M models for new filter</td>
<td>$20.00*</td>
</tr>
</tbody>
</table>

* Items are net priced and are not subject to any discount.