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

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**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Relative Humidity Range:</th>
<th>0 to 100% RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range:</td>
<td>-40 to 140°F (-40 to 60°C)</td>
</tr>
<tr>
<td>Accuracy, RH:</td>
<td>RHP-2XXX ±2% 10-90% RH @ 25°C; RHP-3XXX ±3% 20-80% RH @ 25°C; RHP-5XXX ±5% 20-80% RH @ 25°C.</td>
</tr>
<tr>
<td>Accuracy, Thermistor Temp Sensor:</td>
<td>±0.2°C @ 25°C (±0.36°F @ 77°F)</td>
</tr>
<tr>
<td>Accuracy, RTD Temp Sensor:</td>
<td>DIN Class B; ±0.3°C at 0°C (±0.54°F @ 32°F).</td>
</tr>
<tr>
<td>Accuracy, Solid State Band Gap:</td>
<td>±0.9°F @ 77°F (±0.3°C @ 25°C).</td>
</tr>
<tr>
<td>Hysteresis:</td>
<td>±1%, Repeatability: ±0.1% typical</td>
</tr>
<tr>
<td>Temperature Limits:</td>
<td>-40 to 140°F (-40 to 60°C)</td>
</tr>
<tr>
<td>Storage Temperature:</td>
<td>-40 to 176°F (-40 to 80°C)</td>
</tr>
</tbody>
</table>

**Compensated Temperature Range:**
- 4 to 140°F (-20 to 60°C)
- 20 mA Loop Powered Models: Power requirements: 10-35 VDC; Output signal: 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:**
- Types 1, 2, 3: Solid state band gap; Curves A, B, C: ±1°C @ 25°C (±1.8°F @ 77°F). Curves D, E: Platinum RTD DIN 385.
- Curves F: Tungsten RTD DIN 385.
- 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 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: .61 lb (.28 kg); OSA: 1 lb (.45 kg)
- Agency Approvals: CE

**ACCESSORIES**

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

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