Kahn manufactures a full line of precision hygrometers using the most advanced, proven technologies:

- Ceramic sensors yield the fastest response time and greatest corrosion resistance
- Extremely accurate chilled mirror optical systems provide a fundamental method of dewpoint measurement

In addition, you get the flexibility of local, remotely installed, or portable hygrometers rugged enough for any industrial environment. Kahn also offers the latest in dewpoint transmitters with both analog and digital outputs to your computer or PLC.

Kahn features intrinsically safe designs for hazardous locations. All Kahn hygrometers offer traceability to national and international standards. Kahn offers a wide variety of sampling systems for use with many gases, including natural gas, and at pressures from vacuum to 5000 PSIG. Our off-the-shelf and custom-designed calibration equipment will allow you to easily verify sensor performance or even outfit an entire metrology laboratory.

We invite you to compare our technical advantages. You will find that, feature for feature, Kahn Instruments sets the standard in moisture measurement.

NOTE: The information included herein was correct at the time of publication and supersedes all previous data. It is our policy to continually improve our products to insure even better performance. Consequently current Kahn products may incorporate modifications not shown on these pages.
Kahn offers two optical (chilled mirror) hygrometer products, Optidew and Series 4000, to meet the requirements of a broad range of dewpoint measurement applications. Each product is available in a variety of models to suit the user's specific needs. Kahn's 20 years of experience in chilled mirror technology has produced extremely sensitive (parts per billion), accurate and drift-free instrumentation for measurement of gas dewpoint. All Kahn hygrometers offer measurement traceability to national and international standards.

The Optidew Dewpoint and RH Hygrometer is a compact, sturdy and economical instrument that provides continuous dewpoint measurement, display and output. Key features include:

Models
- Optidew-Wall
  - Wall mount transmitter with integral sensors
- Optidew-Remote
  - Transmitter with remote sensors and 6 foot cables
- Optidew-Probe
  - Transmitter with probe type sensors
- Optidew-Bench
  - Bench mount hygrometer with monitor, carry handle, remote sensors and 6 foot sensor cables

Series 4000
- Dewpoint measurements from -100°C to +85°C
- Accuracy of ±0.1°C
- Resolution ±0.1°C
- 3-Stage Peltier cooling
- Automatic contamination compensation
- Remote sensor in a compact housing
- Climatic version: dewpoints to +85°C
- Temperature-controlled sensor body for dewpoint measurements to -85°C (230 ppb)
- Temperature-controlled sensor body for dewpoint measurements to -100°C (13 ppb)

*The S4000RS and S4000TRS also feature our unique "speed pipe" technology that improves the response speed at trace moisture levels. The "speed pipe" concentrates the formation of ice crystals on the mirror surface and can reduce response time at trace moisture levels by a factor of four times.

The calibrations of Kahn hygrometers are traceable to the National Institute of Standards and Technology. Sensors are calibrated through a master optical hygrometer which has been calibrated at the NIST and is periodically re-calibrated. A certificate of traceability is provided with all of these instruments.

Some Satisfied Customers
- Air Products
- Amgen
- Cargill
- Duke Energy
- DuPont
- ExxonMobil
- General Electric
- General Motors
- Harvard University
- Hewlett Packard
- Honeywell
- IBM
- Intel
- Lockheed Martin
- Merck
- NASA
- National Weather Service
- Pratt & Whitney Aircraft
- Tennessee Valley Authority
- Texas Instruments
- Transwestern Pipeline
- U.S. Navy

The calibrations of Kahn hygrometers are traceable to the National Institute of Standards and Technology. Sensors are calibrated through a master optical hygrometer which has been calibrated at the NIST and is periodically re-calibrated. A certificate of traceability is provided with any of these instruments.
## Hygrometer Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PORTABLE</th>
<th>CERAMIC</th>
<th>TRANSMITTER</th>
<th>ON-LINE</th>
<th>OPTICAL</th>
<th>S4000 INTEGRALE/ REMOTE</th>
<th>S4000 RS/TRS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EASIDEW</td>
<td>CERMAX*</td>
<td>EASIDEW*</td>
<td>PURA*</td>
<td>CERMET II*</td>
<td>OPTIDEW</td>
<td>S4000</td>
</tr>
<tr>
<td>RANGE</td>
<td>-100°C to +20°C</td>
<td>-120°C to +30°C</td>
<td>-100°C to +20°C</td>
<td>-120°C to +40°C</td>
<td>-100°C to +20°C</td>
<td>-50°C to +90°C (Single Stage)</td>
<td>-45°C to +20°C (RS)</td>
</tr>
<tr>
<td>&amp; ACCURACY</td>
<td>±2°C</td>
<td>±2°C</td>
<td>±1°C (40°C to -60°C)</td>
<td>±2°C</td>
<td>±1°C</td>
<td>±0.1°C</td>
<td>±0.1°C</td>
</tr>
<tr>
<td>SENSOR</td>
<td>Thin film Ceramic Interchangeable</td>
<td>Thin film Ceramic Interchangeable</td>
<td>Thin film Ceramic Interchangeable</td>
<td>Thin film Ceramic Interchangeable</td>
<td>Thin film Ceramic Interchangeable</td>
<td>1 or 2 Stage Optical (Chilled Mirror)</td>
<td>3 Stage Optical (Chilled Mirror)</td>
</tr>
<tr>
<td>LOCATION</td>
<td>Built-In</td>
<td>Remote (optional)</td>
<td>Remote</td>
<td>Built-in</td>
<td>Remote</td>
<td>Built-In (INT)</td>
<td>Remote (REM)</td>
</tr>
<tr>
<td>CONFIG.</td>
<td>Portable</td>
<td>Portable</td>
<td>Transmitter</td>
<td>Sensor block with 1/4” VCR</td>
<td>Bench or panel</td>
<td>Wall mount, remote, probe or bench type</td>
<td>Bench or 19” rack</td>
</tr>
<tr>
<td>OPERATING PRESSURE</td>
<td>Vacuum to 5000 PSIG</td>
<td>Vacuum to 6000 PSIG</td>
<td>Vacuum to 5000 PSIG</td>
<td>Vacuum to 3500 PSIG</td>
<td>Vacuum to 5000 PSIG</td>
<td>Vacuum to 3600 PSIG</td>
<td>Vacuum to 150 PSIG</td>
</tr>
<tr>
<td>TEMPERATURE</td>
<td>-20°C to +50°C</td>
<td>-20°C to +50°C</td>
<td>-20°C to +50°C</td>
<td>-40°C to +60°C</td>
<td>-40°C to +60°C</td>
<td>-20°C to +50°C</td>
<td>-20°C to +50°C</td>
</tr>
<tr>
<td>SENSOR</td>
<td>Digital, °C, F</td>
<td>Digital, °C, °F, %RH, ppmv, g/m^3</td>
<td>Digital, °C, °F, %RH, ppmv, g/m^3</td>
<td>Digital, °C, °F</td>
<td>Digital, °C, °F, g/m³</td>
<td>°C, °F, %RH, ppmv, g/m³</td>
<td>°C, °F, %RH, ppmv, g/m³</td>
</tr>
<tr>
<td>DISPLAY UNITS</td>
<td>4-20mA</td>
<td>4-20mA or RS485</td>
<td>4-20mA or RS485</td>
<td>0-10VDC or 4-20mA</td>
<td>4-20mA, 0-20 mA</td>
<td>4-20mA, mV/°C</td>
<td>4-20mA, mV/°C</td>
</tr>
<tr>
<td>OUTPUT</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Two 10A at 240VAC or 6A at 120 VDC</td>
<td>One 0.5A at 120VAC or 24VDC</td>
<td>None</td>
</tr>
<tr>
<td>ALARM RELAY</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Wall Mount: 7 lbs.</td>
<td>Remote Sensor: 8 lbs</td>
<td>None</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>Carrying case</td>
<td>External transducer</td>
<td>Sampling system</td>
<td>Digital display</td>
<td>Power supply</td>
<td>Sampling system</td>
<td>Membrane guard</td>
</tr>
<tr>
<td>POWER</td>
<td>Battery or 115VAC</td>
<td>Battery or 115V/220VAC</td>
<td>12-28VDC</td>
<td>115/220VAC</td>
<td>50/60 Hz</td>
<td>90-264 VAC</td>
<td>90-264 VAC</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>10.8” x 4.9” x 9.9”</td>
<td>6” x 9.9” x 11.9”</td>
<td>—</td>
<td>6.06” x 3.38” x 7.0” (L.S.)</td>
<td>2.0” x 3.8” x 5.7”</td>
<td>Wall Mount: 14.5” x 9” x 4”</td>
<td>16” x 19” x 20” (RS)</td>
</tr>
</tbody>
</table>

**Standard and Custom Calibration Equipment Also Available**

*Intrinsically Safe Versions Available; Specifications May Differ*