The MAC125 Moisture Analyzer is a major advancement in the measurement of absolute humidity.

The measurement process is solid state. No chemicals, compressed air, wet bulb techniques, optics or mirrors are used. The probe is protected from particulates by a 10 micron ceramic filter element, that is cleanable and replaceable.

The measurement process uses a proprietary sensor which responds to the partial pressure of water vapor. The total pressure is also measured, and the moisture level is calculated from the ratio of the pressures.

The MAC125 is the latest generation of Absolute Humidity Transmitter from MAC Instruments. The MAC125 and its predecessors are providing accurate, reliable, high temperature humidity measurement in many difficult industrial applications throughout the world, since 1990.

- **Measure Absolute Humidity to Virtually Any Temperature**
  Measure moisture in a flame

- **Jumper Selectable Scales**
  % moisture by volume or
  Humidity ratio (mixing ratio)
  (lb water vapor / lb dry air)
  (g water vapor / g dry air)

- **NEMA 4X / IP53 Waterproof Design**
  Suitable for outdoor installation

- **Severe Duty Industrial Construction**
  Stainless Steel Barrel
  Cast Aluminum Enclosure

- **In-situ Measurement**
  mounts directly to stacks, ducts, flues, ovens, furnaces, calciners, kilns, dryers, fuel cells, etc

- **Standard Signal Outputs**
  jumper selectable
  0-20MA (0 to 5V with 250Ω Load)
  4-20MA (1 to 5V with 250Ω Load)

- **Automatic Altitude/Pressure Compensation**

- **Digital Display Option**
  (Built into MAC 125)

- **Filter Blow Back Option**

- **Case Heater Option**
  Extend ambient temperature rating to -40°F/-40°C

- **Case Cool Option**
  Extends maximum allowable ambient temperature

*requires 10psi/69kp clean dry air
### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>% Moisture By Volume</th>
<th>Humidity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC125-100-*</td>
<td>0 to 100% (760 g/m³)</td>
<td>0 to 10</td>
</tr>
<tr>
<td>MAC125-60-*</td>
<td>0 to 60% (456 g/m³)</td>
<td>0 to 1.0</td>
</tr>
<tr>
<td>MAC125-30-*</td>
<td>0 to 30% (228 g/m³)</td>
<td>0 to 0.25</td>
</tr>
<tr>
<td>MAC125-20-*</td>
<td>0 to 20% (152 g/m³)</td>
<td>0 to 0.15</td>
</tr>
<tr>
<td>MAC125-10-*</td>
<td>0 to 10% (76 g/m³)</td>
<td>0 to 0.07</td>
</tr>
</tbody>
</table>

*Specify 120V or 230V

- **Media Temperature Range**: 40°F/4°C to 1200°F/650°C
  - Above 1200°F Requires special Mounting Tube
- **Ambient Temperature Range**: 32°F/0°C to 130°F/55°C
- **Pressure Range**: 1 Atmosphere ±5 PSI/35kP
- **Accuracy**: ±1% of %Mv Full Scale
- **Linearity**: ±1% of %Mv Full Scale
- **Hysteresis**: ±1% of %Mv Full Scale
- **Response Time**: 120 Seconds or less reach 90% of final value
- **Analog Output**: 4-20mA, 0-20mA (User Selectable)
- **Power Requirements** -Model-120V: 100V-132V 50/60 Hz @ 3A Max.
  - Model-230V: 200V-250V 50/60 Hz @ 1.5A Max.
MAC 125 Moisture Analyzer  Special Configurations

MAC125-HT  For installations in high ambient temperatures

The MAC125-HT is a two piece solution for installations were the ambient temperature at the sample point exceeds 130°F / 55°C. The system consists of a probe that is inserted into the process and a remote electronics cabinet that can be mounted up to 100ft/30m away from the probe in an area where the ambient temperature is lower than at the sampling point. The MAC125-HT is not CE certified.

MAC125-ES  For installations that require extractive sampling

The MAC125-ES is designed for installations where extractive sampling is desired. A heated sample line is connected to a compression fitting on the MAC125-ES. Various connection styles are available. Please consult factory for configurations specific to your application.

MAC Instruments may be able to customize the MAC125 to meet the needs of your application. Please consult factory for details.