



for

**HIGH TEMPERATURE**

**ABSOLUTE HUMIDITY MEASUREMENT**



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.

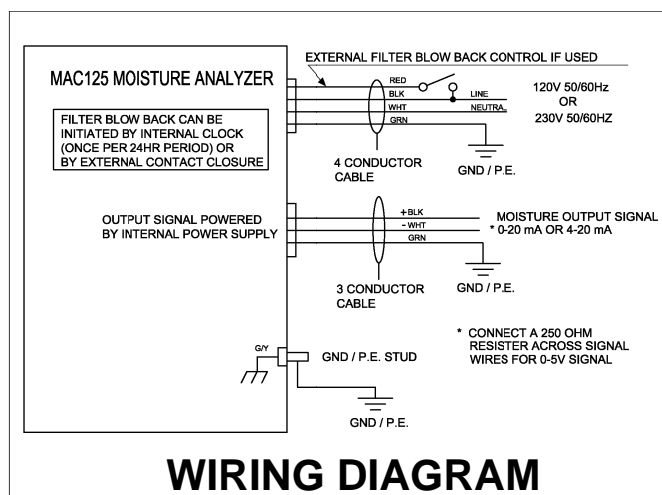
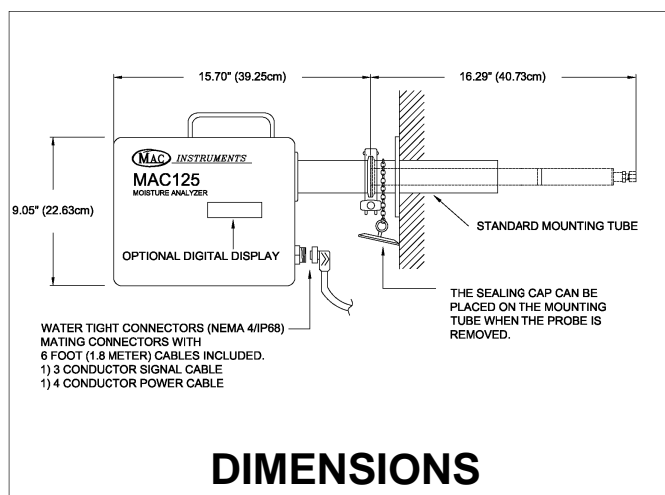
The MAC125 is the latest generation of Absolute Humidity Transmitter from MAC Instruments. The MAC125 and its predecessors are providing accurate, reliable, high temperature humidity measurement in many difficult industrial applications throughout the world, since 1990.

- **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

**THE STANDARD FOR HIGH TEMPERATURE ABSOLUTE HUMIDITY MEASUREMENT**

# MAC 125 Moisture Analyzer



## SPECIFICATIONS

| <u>Model</u> | <u>% Moisture By Volume</u> | <u>Humidity Ratio</u> |
|--------------|-----------------------------|-----------------------|
| MAC125-100-* | 0 to 100%                   | 0 to 10               |
| MAC125-60-*  | 0 to 60%                    | 0 to 1.0              |
| MAC125-30-*  | 0 to 30%                    | 0 to 0.25             |
| MAC125-20-*  | 0 to 20%                    | 0 to 0.15             |
| MAC125-10-*  | 0 to 10%                    | Not Available         |

\*Specify 120V or 230V

|                                      |  |
|--------------------------------------|--|
| Temperature Range .....              | 40°F/4°C to 1200°F/650°C                     |
|                                      | Above 1200°F Requires special Mounting Tube  |
| Pressure Range .....                 | 1 Atmosphere $\pm 5$ PSI/35kP                |
| Accuracy .....                       | $\pm 1\%$ of %Mv Full Scale                  |
| Linearity .....                      | $\pm 1\%$ of %Mv Full Scale                  |
| Hysteresis .....                     | $\pm 1\%$ 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.               |



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