



A DIVISION OF

Machine Applications Corporation

3410 Tiffin Avenue Sandusky, OH 44870

Phone: 419-621-2322 Fax: 419-621-2321

www.macinstruments.com

MAC 125 Moisture Analyzer



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.

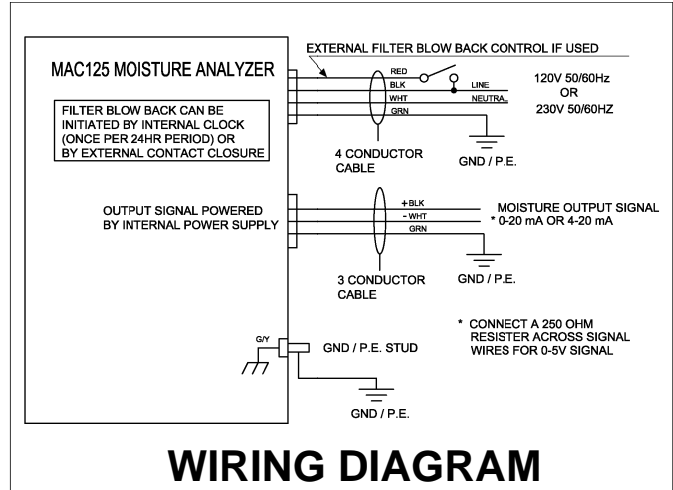
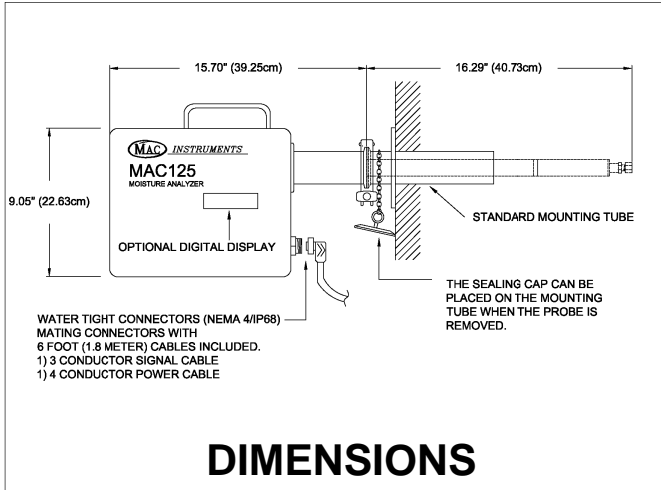
The MAC125 is the latest generation of Absolute Humidity Transmitter from MAC Instruments. The MAC125 and its predecessors are providing accurate, reliable, high temperature humidity measurement in many difficult industrial applications throughout the world, since 1990.

- **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

Model	% Moisture By Volume	Humidity Ratio
MAC125-100-*	0 to 100% (760 g/m ³)	0 to 10
MAC125-60-*	0 to 60% (456 g/m ³)	0 to 1.0
MAC125-30-*	0 to 30% (228 g/m ³)	0 to 0.25
MAC125-20-*	0 to 20% (152 g/m ³)	0 to 0.15
MAC125-10-*	0 to 10% (76 g/m ³)	0 to 0.07

*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.



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MAC 125 Moisture Analyzer Special Configurations

MAC125-HT For installations in high ambient temperatures



The MAC125-HT is a two piece solution for installations where 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

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