



## **HYGROMATIC LEGACY**

**PRODUCT OVERVIEW** 

## **SPECIFICATIONS**

Accuracy over RH Operating Range @ 23°C	±0.6%RH <sup>1</sup>
Accuracy over RH Operating Range	±0.8%RH (10°C to 40°C)
Accuracy over RH Operating Temperature (10-50°C)	±1.0%RH <sup>2</sup>
Temperature Accuracy @ 23°C	±0.10°C
Humidity Range @ 23°C	-20 °C to 50 °C
Temperature, High	50°C
Temperature, Low	<7°C (Typically 12°C below ambient)
Chamber Humidity Stability @ 23°C	±0.2%RH
Chamber Temperature Stability @ 23°C	±0.1°C
Chamber Humidity Uniformity @ 23°C	±0.2%RH @ 50%
Chamber Temperature Uniformity @ 23°C	±0.1°C @ 50%RH
Chamber Temperature Uniformity @ 23°C	0.30 % RH @ 18 °C to 28 °C Or Better Typically $\pm$ 0.25 %
Chamber Size	0.05 °C
Response Time After Temp Stability @ 23°C	0.15 % RH @ 18 °C to 28 °C

## CALIBRATION INSTRUMENTATION INFORMATION

System Performance Verification RH <sup>3</sup>	A2LA Calibrated Transfer Standard
Uncertainty of Transfer Standard	A2LA Calibrated 0.3%RH, 0.036°C
Accuracy of A2LA Calibration System <sup>4</sup>	0.3%RH and 0.036°C, T59000
Chamber Probe Temp Compensated	-40 to 60°C for Full Range Accuracy
Calibration Certification of Trans. Std. <sup>5</sup>	A2LA Accredited Laboratory

## PHYSICAL CHARACTERISTICS

Weight	14kg
Controller Type	PID
Controller Resolution	0.1 %RH, 0.1 °C
Power Requirements	110/220 VAC, 50/60 Cycle

<sup>&</sup>lt;sup>1</sup> Based on calibration, adjustment and comparison of system values against A2LA calibrated transfer standard

A Certificate of Conformance is for the Transfer standard is provided by Thunder Scientific Laboratory.

Note: Software is not included with this system. Consult factory if required.

The HygroMatic Legacy is completely portable with no special preparation required for field use or on-site, in plant maintenance.

<sup>&</sup>lt;sup>2</sup> Accuracy is based on readings of system when compared to readings of calibrated transfer standard. Calibration of the transfer standard is performed by Thunder Scientific using the Model 9000 high accuracy system. The Model 9000 has a specified Uncertainty of 0.30%RH and 0.036°C. The transfer standard is adjusted to read the same as the Model 9000 system. In order to assure linearity the transfer standard is adjusted at 10%, 35%, 50%, 80% and 95%RH @ 23C.

<sup>&</sup>lt;sup>3</sup> System is verified with a final comparison check of the controller set point values and transfer standard chamber readings at 10, 35, 50, 80 and 95%RH @23°C. Readings must be within ±0.3%RH and ±0.1 °C. A Certificate of Conformance with "As Lelt" comparison values between system readings and transfer standard readings is provided by GEO Calibration.

<sup>&</sup>lt;sup>4</sup> Accuracy of A2LA system used for the calibration of transfer standard.

<sup>&</sup>lt;sup>5</sup> A2LA Accredited Certificate of Calibration for transfer standard.

<sup>\*\*</sup>Information subject to change, please visit our website for updates at www.geocalibration.com.



Proudly Made in the USA

**Email:** Sales@GeoCalibration.com **Website:** www.GeoCalibration.com