

# Precision Humidity and Temperature Calibrator

## Model 2000

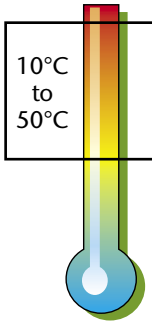
The Model 2000 is a low cost, high-accuracy alternative to RH calibrations that use chilled mirror or 2-pressure systems, and is faster than procedures using saturated salts. The system incorporates advanced electronics and innovative approaches resulting in an overall improvement in performance and reliability.

The system design provides a capability to perform calibrations of chart recorders with remote probes or perform simultaneous linearity tests of multiple data loggers. The Model 2000 can also be used for a fast assessment of dew point instruments.

Unlike larger systems, the Model 2000 reaches equilibrium within minutes, thus enabling a full range calibration in a much shorter time. The flexibility of the system gives laboratories a means for continuous calibration while larger systems are being used for other tasks requiring extended calibration times.

The Model 2000 measures and controls RH directly. This eliminates the need for any conversions or computations that often lead to additional errors.

In general, the Model 2000 Humidity Calibrator will generate chamber conditions for accurate and repeatable calibration of instruments, probes, recorders and data loggers.



### Features

- Equilibrium of chamber temperature and RH less than 10 minutes
- Chamber control probe maintains accurate calibration for 12 months
- Accurate system calibration includes controllers and probe characteristics
- Direct control readout of RH and temperature eliminates conversions or calculations
- Precise control of RH and temperature using direct input from the internal probe
- Lightweight and transportable for immediate in-plant and laboratory RH calibrations
- Temperature compensated control probe means high accuracy over wide RH range
- RS-485 output (optional) for computer control of automatic ramp and soak cycles

### SPECIFICATIONS

Humidity Range	8% to 95%RH (controlled range)
Temperature Range	10°C to 50°C (controlled range)
Accuracy of RH Control Probe	±1.0%RH (10% to 90%RH) <i>Includes calibration accuracy (0.5%), hysteresis (0.2%) and sensor linearity (0.3%)</i>
Overall System Accuracy	±1.25% to ±1.5%RH <i>Overall system accuracy when controller electronics and temperature stability are included</i>
Temperature Accuracy	(15°C to 30°C) ±0.2C or better
Humidity Stability	±0.2%RH
Temperature Stability	±0.1°C
Humidity Uniformity	±0.3%RH (10% to 90%RH) ±0.4%RH (>90%RH)
Temperature Uniformity	±0.1C
Response Time	5 to 7 minutes for 30%RH change
Temperature Rate of Change	1.0°C/minute (decrease) 3.0°C/minute (increase)
Sampling Ports for External Flow	Customer Controlled Flow Rate
Power Requirements	110/220VAC, 50/60 cycle
Output Signals	Analog 0-5V, RH and Temp RS-485 (optional add-on)
Calibration Door (basic standard)	4-Port for Uniformity and Stability (custom entrants available)
Reference Probe Calibration	2-pressure Calibrated Probe
Chamber Calibration Adjustment	2-pressure Calibrated Probe
Weight	26lbs. (13kg)
Dimensions	45cm x 36cm x 21cm (WxDxH)
All specifications based on ambient environment of 23°C	



### HOW TO ORDER

Model 2000	Humidity Calibrator
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