Humidity Calibration

KAYMONT™

Precision Humidity & Temperature Calibration System

MODEL 2000SPA-X SPECIFICATIONS*

Humidity Range		5-95%RH
Humidity Accuracy @ 23°C, 5-95%RH		±0.80%RH (NVLAP Adjusted)
Temperature Accuracy @ 23°C		±0.1°C or better (NVLAP Adjusted)
Temperature Range High		55°C
Temperature Range Low		<5°C (15°C to 18°C below ambient)
Accuracy of NVLAP Calibration System		±0.3%RH and ±0.038°C (Model 9000)
Chamber Humidity Stability@23°C		±0.1%RH
Chamber Temperature Stability@23°C		±0.1°C
Chamber Humidity Uniformity@23°C		±0.1%RH @ 50%RH/23°C
Chamber Temperature Uniformity@23°C		±0.1°C @ 50%RH
Response Time @ 23°C		3-5 minutes (typical over range)**
Temperature Rate of Change (<<< temp)		1.0°C/minute (typical)
Temperature Rate of Change (>>> temp)		5.0°C/minute (typical)
Power Requirements		110/220VAC, 50/60 cycle
Mechanical	Weight	28# (14kg)
	Weight	32# (16kg) (shipping)
	Dimensions	45cm x 36cm x 21cm
System Performance Verification		Comparison with Transfer Standard
Maximum Difference Controller/Chamber		±0.3%RH and ±0.1°C (max allowable)
Chamber Probe Temp Compensated		-40 to 60°C for High Accuracy over Range
Calibration Certification		NVLAP Accredited Laboratory***
CE Conformance Testing		EN55022, EN55024, EN61000-4-2, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

* Typical performance specifications of system when using internal chamber.
** After chamber reaches and maintains temperature equilibrium
*** NVLAP Accredited laboratory Certificates of Calibration for Working Transfer Standard.

FEATURES:

Digital control for better stability of RH and temperature

Chamber stabilization in less than 5 minutes over 50%RH step @ 23°C

Lightweight and transportable for in-plant or laboratory calibration of probes

Sample ports enable use chilled-mirror as a reference

Recommended calibration interval for chamber control probe 12 months

Chamber doors designed to accept probes from all manufacturers

ACCURACY OF SYSTEM WHEN USING EXTERNAL CHAMBERS

The M2000SPA-X system can be offered with a reference which has been calibrated and adjusted using NIST traceable instrumentation and performed by an NVLAP Accredited Laboratory. This high accuracy reference standard can be used to verify chamber conditions at the controller set point values. Controller set point values can be adjusted to provide the desired test environments within the external chambers.

The above performance specifications for the standard system and for operation with the external chambers is based on the use of the Kaymont KPPRHT-A-1 reference provided with the system.

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Order Guide — Effective: June 01, 2012

Humidity Generator System

RH Generator conforming to specifications:	Part Number: 2000SPA-X

Model 2000SPA-X RH Generator conforming to specifications. The Certificate of Conformance is to ISO/IEC 17025 procedures. Report of Calibration for the secondary transfer standards provided by NVLAP Accredited Laboratory with NIST traceability.

System includes:

1 each - Desiccant Tube, Molecular Sieve/Indicating Desiccant
1 each - Chamber Door, 5 Port, (select port sizes) [1]
2 each - Water Syringe
1 set - KayCal Software for automatic Ramp/Soak Operation
1 set - Certificates of Calibration consisting of:

A. NVLAP Certificate of Calibration for Transfer Standard adjusted by NVLAP lab to an Uncertainty
B. Kaymont Certificate of Calibration. "As Left" data for comparison of chamber readings and controller set point values at 10, 35, 80 and 95%RH @23°C using a transfer standard calibrated with NVLAP instruments with an uncertainty of 0.3%RH traceable to NIST*

***The transfer standard used for the adjustment of the controller set point readings versus the reference readings has been calibrated to a higher degree of accuracy than the standard KPPRHT-A-1 or –A-2 units.

Notes:
[1] Port Sizes available in any combination: 12mm, 15mm and 18mm. Additional cost for 25mm

Optional items and spares

Clear Door, No Fittings	**Chamber Door**
4 Port Doors with 4 Fittings. Any combination of 12, 15, 18mm	**Chamber Doors**
External Chamber, Clear Door, 250 x 200 x 100mm	**CHEXT-10084**
External Chamber, 12 ports, 12, 15 and 18mm , 250 x 200 x100m	**CHEXT-10084/12**
External Chamber, Clear Door, 300 x 250 x 150mm	**CHEXT-12106**
NVLAP Calibrated Reference, <±0.6%RH, 10, 35, 80, 95%RH	**KPPRHT-A-1 [2]**
NVLAP Calibrated Reference, <±0.6%RH, 10, 35, 80, 95%RH	**KPPRHT-A-2 [3]**
Hard Carrying Case with Wheels	**HCC2000**
Complete Desiccant Replacement Tube	**DDX2000**
Desiccant Replacement Kit, 1jar Molecular Sieve, 1jar Blue	**DDK2000**

[2] KPPRHT-A-1 is calibrated at 23°C. NVLAP Calibrated with Report of Calibration. ISO/IEC 17025
[3] KPPRHT-A-2 is calibrated at 23°C (10, 35, 80 and 95%RH), at 10°C (10 and 80%RH) and also at 40°C (10 and 80%RH). NVLAP Calibrated with Report of Calibration. ISO/IEC 17025