High Accuracy Portable Relative Humidity/Temperature Calibrator

RHCL-2

Inset shows detail of display.

RHCL-2

2 YEAR WARRANTY NIST Standard

- **RHCL-2 Field Proven Optical Chilled Mirror (OCM) Technology**
- **Completely Self-Sufficient and Portable Humidity Calibration System**
- **Highest Accuracy Available for Both RH and Temperature (AT): RH Range: 5 to 95%**
- **10 to 50°C Air Temperature Range**
- **Temperature and RH Controlled Independently**
- **Automatic Correction for Mirror Contaminants**
- **Certified Measurements Against NIST Traceable Standards**

The OMEGA® RHCL-2 is a microprocessor based, programmable humidity calibration system that is at home in the metrology lab or out in the field performing on site NIST traceable humidity calibrations. The RHCL-2 is entirely self-sufficient and does not need compressed air or a water connection to operate, which allows this system to be truly portable. The system offers the highest accuracy available for both relative humidity and ambient temperature. Temperature and relative humidity are controlled independently; therefore, you are not limited to performing calibrations at the surrounding ambient temperature.

The RHCL-2 uses an Optical Chilled Mirror (OCM) primary measurement technique for traceability and feedback control. Contributing to ease of use are features such as maintenance reducing Automatic Balance Cycle (ABC), an integral ambient temperature probe, and D2 chilled mirror sensor which are located in the sample chamber providing not only superior accuracy but the fastest response.

The RHCL-2 employs a unique control scheme for maintaining precise RH control. The system incorporates volumetric proportional control valves. By independently modulating the “dry” and “wet” valves from full-open to full-close, and all points between, any desired humidity can be quickly generated. Additionally, because the RHCL-2 is continuously monitoring the sample chamber conditions via its integral chilled mirror, it is able to instantaneously react to changes in humidity and maintain control stability.

Specifications

Range:
RH: 5 to 95% RH @ 10 to 50°C
Dew/Frost Point: -40 to 60°C (-40 to 140°F)
Accuracy:
RH: ±0.5% RH @ ±0.2°C
Dew/Frost Point: ±0.2°C nominal
Slew Rate: 1.0°C (1.8°F)/sec max, above 0°C
Repeatability: ±0.5%
Outputs: Anaolog (0 to 5 Vdc or 4 to 20 mA) and RS232C
Power Requirements: 100 to 240 Vac, 50 to 60 Hz, 150 W maximum
Sample Flow Rate: 1 liter/min (2.0 SCFH)
Operating Temperature (Control Unit): 0 to 50°C (32 to 122°F)
Weight: 15.4 kg (34 lb)
Dimensions: 52 W x 43.7 D x 21.7 cm H ($20\frac{5}{8}$ x $17\frac{3}{16}$ x $8\frac{9}{16}$")
Enclosure: Ultra high-impact copolymer carrying case

To Order ***Visit omega.com/rhcl-2 for Pricing and Details***

Model No.	Description
RHCL-2	Portable RH/temp calibrator
RHCL-2-SR	Seals for sample chamber, qty 20
RHCL-2-CCB	Chamber covers without holes, qty 3
RHCL-2-DR5	Dessicant 5 lb jar

Comes complete with operator’s manual, power cord, cleaning kit and NIST certificate.
Ordering Example: RHCL-2, *portable calibrator,* ***RHCL-2-SR,*** *seals, and* ***RHCL-2-DR5,*** *5 lb jar of dessicant.*