

CMH-20

Chilled Mirror Hygrometer



Figure 1: CMH-20



Figure 2: Sensor Housing

FEATURES

- Tabletop mount or rack mount chilled mirror hygrometer
- Isolated stainless-steel sensor cavity
- Sapphire mirror for robust applications
- Precision Accuracy
- 2 alarms (SPDT)**
- Two 4-20mA outputs / 2 alarms (configurable)**
- RS232 programmable communication
- LCD 2.4" graphic display, keypad & onboard I/O
- Real time clock function
- Data logging capabilities with SD card
- Flip top lid for easy cleaning
- Dew points to -40C at 25C

APPLICATIONS

- CALIBRATION LABS
- CLEAN ROOMS
- ENVIRONMENTAL CHAMBERS
- PHARMACEUTICAL
- INDUSTRIAL PROCESSES
- GLOVEBOX APPLICATIONS
- SEMICONDUCTOR MFG
- DATA STORAGE

The CMH-20

The CMH-20 (patented technology) is a calibration laboratory grade, precision measuring chilled mirror hygrometer that provides quick and accurate measurements of dew point. The hygrometer is configured for tabletop mounting or rack mounting for flow through applications. It's isolated stainless-steel sensor cavity and its sapphire mirror makes it highly resistance to corrosion. The unit displays Dew Point (DP) with an air temperature option. The CMH-20 has data logging capabilities and a graphic display. The unit offers stable, accurate and repeatable measurements that are traceable to NIST.

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Technical Information

Measurement Range	Dew Point: -40 °C to +25°C at 30°C (ambient temperature); (non-condensing)
Display	Graphical Display, capable to shows three measurements
Accuracy	+/- 0.2°C
Resolution	0.01 %
Output	2 analog outputs (V or I) and a RS-232
Cable length between control and sensor	Typical 10ft length, for special lengths-consult factory
AC Power	85 to 230Vac, 50-60Hz
Pressure	10bar (max)
Technology used	Chilled mirror technology
Operating Temperature	0 °C to +50 °C - control unit -40°C to 100°C
Total Weight including sensor and cable	<8bs.
Data Logging	Storage capabilities: over 1.6M measurements-SMD card
Recommended Flow Rate	1-3 scfh
Sample Connections	¼" compression fitting
Enclosure Dimensions	20.0" (502mm) H * 16.3" (415mm) W * 9.7" (246mm) D
Repeatability	+/- 0.05C
Wetted Parts	Sapphire, stainless steel, glass
Range for remote air temperature probe option	-110°C -100°C
With remote air temperature option	Unit displays dew point, air temperature and RH
Air temperature probe accuracy	+/-0.1°C

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Ordering Table (More configurations available upon request)

CMH-20	A dewpoint chilled mirror hygrometer
CMH-20-AT	A dewpoint chilled mirror hygrometer with an air temperature probe

Note: all Dew Point and Temperature Units can be displayed in degrees C or F.

Units can also display: Absolute Pressure(mB), Parts per Million by Volume (PPMv), by weight (PPMw) Grains/Pound, grams/kilogram, Absolute Humidity (grams/M3).

Also, any request for any other unit: e.g. **Mixing Ratio, enthalpy, etc.** can be easily accommodated.

Below is the CMH-20 with both humidity and temperature sensors



Figure 3: CMH-20 Complete Setup