

Dewtran® II

Chilled Mirror Hygrometer



FEATURES

- Isolated stainless-steel sensor cavity
- Sapphire mirror
- Precision Accuracy
- 2 alarms (SPDT)
- Two 4-20mA outputs (configurable)
- RS232 programmable
- Two-line display
- Tabletop sensor mounting
- Data logging capabilities (optional)
- 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



Figure 1: Dewtran II with temperature and display



Figure 2: Dewtran II Sensor



Figure 3: Dewtran II sensor open

The DewTran® II

The DewTran® II (patented technology) is a precision chilled mirror hygrometer that provides quick and accurate measurements of dew point, air temperature, humidity, or barometric pressure measurements. The hygrometer is configured as a tabletop mount for flow through applications. It's isolated stainless-steel sensor cavity and its sapphire mirror makes it highly resistance to corrosion. User selectable, depending on options, unit displays (3 parameters) Dew Point (DP). Air temperature (T) and Relative Humidity (RH) or Barometric Pressure (BP), other units of measure are selectable. The unit offers stable, accurate and repeatable measurements that are traceable to NIST.

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Technical Information

Measurement Ranges	Dew Point: -40 °C to +25C at 30C; (non-condensing) Relative Humidity: 0-95% (non-condensing) Temperature: -20 °C to +95°C (remote configuration) Temperature: -10 °C to +60° Barometric Pressure: 10mb to 1100mb
Display	2x16 LCD Display, Shows three user selectable parameters.
Repeatability	+/- 0.05°C
Resolution	0.01 %
Output	(2) 4-20mA or RS232
Cable Length	10 feet is standard. Contact factory for custom lengths. (For remote versions only).
Supply Voltage	24Vdc +/-10% @ 1.5A
Pressure	10bar (max)
Analog Output scaled range Dew Point (4-20mA) User Selectable	-40°C to +60 °C (Factory set)
Operating Temperature	-20 °C to +60 °C (Wall mount units)
Weight	< 5lbs.
Data Logging	SD 64GB, 1 sample/2 sec, Output-CSV file (opt)
Sample Flow Rate	1-3 scfh
Enclosure Rating	IP66 with AT option
Communications	RS232 Programmable
Accuracy	Dew point +/-0.2C Air Temperature +/-0.2C RH +/-1.0% (0-80%), +/-2% (>80% to 95%) Barometric Pressure +/-1.5mb
Wetted Parts	Sapphire, stainless steel, glass

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Ordering Table (More configurations available upon request)

DewTran II	Examples:
DewTran®-II	Chilled Mirror Hygrometer tabletop configuration (10ft cable)
DewTran®-II-T	Chilled Mirror Hygrometer with remote temperature probe
DewTran®-II-B	Chilled Mirror Hygrometer with barometric pressure
DewTran-II-DL	Chilled Mirror Hygrometer with data logging

Note: Custom cable lengths and configurations are available. Contact factory with any questions.

Additional Options:

<u>Part Number</u>	<u>Description</u>
DT-T	A remote temperature probe (10ft length)
DT-B	Barometric sensor
DT-DL	Datalogging option
SVS	Sampling vacuum system, for atmospheric or vacuum applications.

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.