

Serving the market for more than 25 years as EG&G Moisture and Humidity Systems.

Model 2003 Hygrometer: DP, psia, PPMv

Install Reliability

Install EdgeTech Dew Point/Absolute Pressure/ PPMv Measurements

Benefits

- Capable of measuring Dew Point, absolute pressure, PPMv and other psychrometric variables
- Primary chilled mirror measurement of water vapor content of gas
- Field proven sensing technology from EdgeTech
 - Wide measuring range (-50 to 100°C)
 - Automatic correction for mirror contaminants
- Certified measurements against NIST traceable standards
 - Standard features, where others charge extra
 - Annealing Furnaces

Process Dryers

Plant Air .



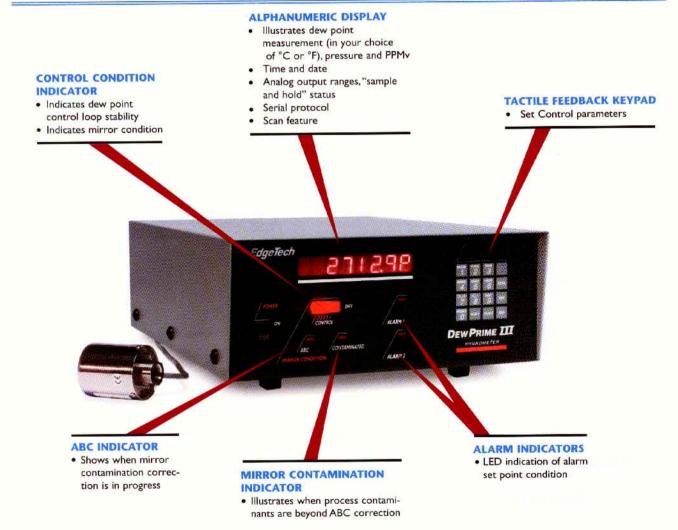
- Clean Rooms
 - Curing Ovens

Metrology

- Environmental Chambers
- Emission Testing

- Lab Calibration Standards
- Continuous Industrial Processes

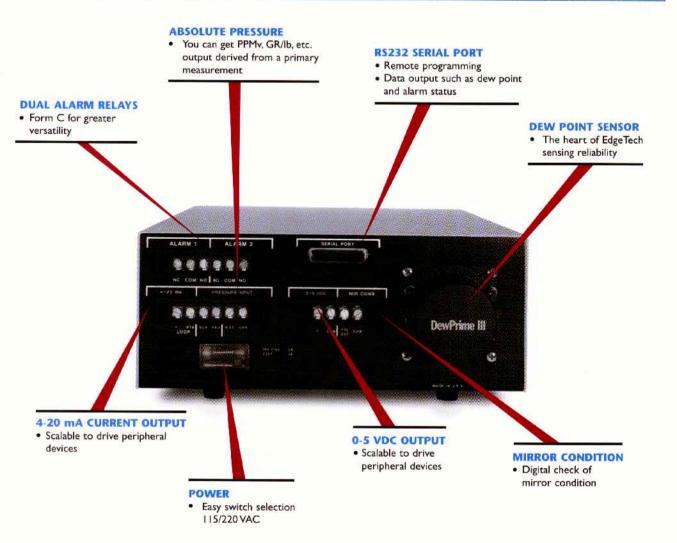




Features

- Primary Dew Point, absolute pressure, and PPMv
- Other psychrometric variables available (i.e. grains per pound, etc.)
- · Programmable menu, via front panel
- Depression range choice of either 45 or 60°C (one- or two-stage cooling)
- Standard features that others charge extra:
 - two alarms (Form C), Automatic Balance Control, Scalable Analog Outputs, etc.
- Automatic Balance Cycle (ABC)
 - automatically corrects for most mirror contaminants
 - automatically restandardizes the instrument
 - you choose time and interval of restandardization, for best convenience
 - increase the length of unattended operation
- Scan feature; view multiple parameters in 3 second intervals





Features

EdgeTech field-proven, chilled mirror technology

- one- or two-stage sensors available
- NIST certified calibration (certificate provided) integral or remote from controller

Dual alarm capability

- can be set for latching or auto-reset modes, your choice

Serial and analog outputs

- RS232 communication, with terminal, printer, or computer
- 0-5 VDC and 4-20 mA
 - available simultaneously, one output per measurement parameter
 - scalable throughout the entire operating range of Dew Point, Pressure or PPMv
 - program via front panel or remote serial port, your choice
 - isolated 4-20 mA option available

Pressure transducer input for psychrometric variable calculation

Specifications, Model 2003

Measurement Performance

Dew/Frost Point and RH Ranges

-40 to +60°C (-40 to 140°F), S1 -50 to +100°C (-58 to +212°F), S2 0 to 100 psia 0 to 999, 999, PPMy

Accuracy

±0.2°C (0.36°F) Dew/Frost Point ±0.5% of Full Scale Pressure

Dew/Frost Point Temperature Sensor

3-wire Platinum Resistance Thermometer (PRT), 100 ohms at 0°C

Depression

45°C (81°F), S1 65°C (117°F), S2

Depression Slew Rate

1.7°C (3°F)/second maximum, above 0°C

Remote Sensors

Up to 75 meters (250 feet)

Resolution

0.1°C or °F 0.01 psia 0.1 PPMv < 1000 PPMv 1 PPMv ≥ 1000 PPMv

Functional

Power Requirements

100/115/230 VAC ±10%, 50-60 Hz,

Operating Temperature

Control Unit: 0 to +50°C (+32 to +122°F) DP Sensors: -40 to +100°C (-40 to +212°F)

Auxiliary Coolant

Water (or other)—2 liters/minute (0.5 gallon/minute) at 100 psig maximum, to augment depression capability of sensor when necessary

Sample Pressure

0 to 14 kg/cm2 (0 to 200 psia), S1/S2

Sample Flow Rate

0.25 to 2.4 liters/minute (0.5/5.0 SCFH)

Outputs

4-20 mA, 0-5 VDC, RS232

Track and Hold

Outputs, analog, digital, alarms can be set to Track or Hold while in Auto Balance or Programming mode

Packaging

Alarms

Two form C, SPDT alarm relays rate for 3 amps at 24 VDC, 120 VAC Alarm mode (high or low) programmable from keyboard or RS232 Alarm set points programmable from -99.99 to + 99.99 °C (-148 to +212 °F) from keyboard or RS232 Alarm can be latched or unlatched

Display

8-digit LED data display 0.6in. high digits

Weight

7.0 kg (15.5 pounds), bench-top

Dimensions

28.2 (w) \times 13.0 (H) \times 45.7 (D) cm, (11.1 (W) \times 5.2 (H) \times 18 (D) in.), bench-top with S2 mounted

Mounting

Bench-top (standard)

Sensor Materials

Rhodium mirror, glass, epoxy, and anodized aluminum

Sensor Selections

\$1, \$2 are one and two-stage flow through dew point (DP) sensors, respectively

Specifications are nominal and subject to change without notice.

Accessories

REMOTE MOUNTING KIT

- For remoting the sensor 10 feet from the control unit
- Extension cable is available for up to 250 feet
- · System is NIST-certified with selected cable length

PANEL/RACK MOUNTING KIT

SAMPLING MODULE

 Consists of a vacuum pump, 0.75-1.35 kg/cm (10.7-19.2 psia) variable area flowmeter.
 Assembled in a weathertight enclosure, with bulkhead fittings. Specify 115 V or 230 VAC, 50 or 60 Hz

MIRROR MICROSCOPE

- For examination of dew or frost layer (consult factory for pressure specifications)
- EXPLOSION-PROOF SENSOR HOUSING
- NEMA-4 WALL MOUNT ENCLOSURE
 - For industrial applications
- IN-LINE PARTICULATE/COALESCING FILTER

INSTALL RELIABILITY—INSTALL EDGETECH

For a **Quotation** or to **Order**, contact your Local Representative. For a list of Local Representatives, please call, fax, or write:



MILFORD, MA 01757
TEL: (508) 478-9500
TOLL FREE: USA(800)276-3729
FAX:(508)634-3010
WEB SITE: www.edgetech.com
E-MAIL: h2o@edgetech.com

