




Serving the market for more than 30 years,
as EG&G Moisture and Humidity Systems.

Model 2001 Dew Point Hygrometer

Install Reliability
Install EdgeTech Dew Point Measurement

Benefits

- **Primary** chilled mirror measurement of water vapor content of gases
 - **Field proven** sensing technology from EdgeTech
 - **Wide** measurement range (-50 to 100°C)
 - **Automatic** correction for mirror contaminants
- **Certified** measurement against NIST traceable standards
 - **Standard features**, where others charge extra



The image shows a Dew Prime I Dew Point Monitor, a rectangular device with a black front panel and a white top. The front panel features a digital display at the top, a keypad on the right, and several control buttons and indicators on the left. The text "EDGE MOISTURE AND HUMIDITY SYSTEMS" is visible at the top of the front panel, and "DEW PRIME I DEW POINT MONITOR" is printed at the bottom right. The device is surrounded by a list of applications:

- Annealing Furnaces
- Process Dryers
- Clean Rooms
- Curing Ovens
- Environmental Chambers
- Emission Testing
- Continuous Industrial Processes
- Lab Calibration Standards
- Plant Air
- Paint Booths

CONTROL CONDITION INDICATOR

- Indicates dew point control loop stability
- Indicates mirror condition

ALPHANUMERIC DISPLAY

- Illustrates dew point measurement (in your choice of °C or °F)
- Time and date
- Analog output ranges, "sample and hold" status
- Serial protocol
- Dual alarm set points

TACTILE FEEDBACK KEYPAD

- Set control parameters



ABC INDICATOR

- Shows when mirror contamination correction is in progress

MIRROR CONTAMINATION INDICATOR

- Illustrates when process contaminants are beyond ABC correction

ALARM INDICATORS

- LED indication of alarm set point condition

Features

- Primary dew point measurement
- 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
 - increases the length of unattended operation

RS232 SERIAL PORT

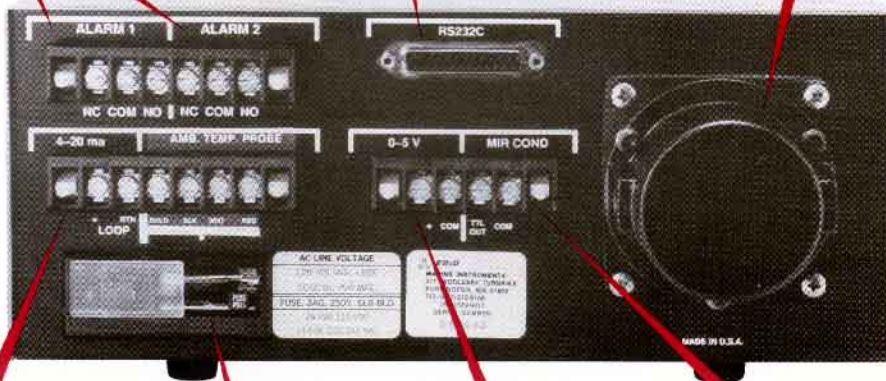
- Remote programming
- Data output such as dew point and alarm status

DUAL ALARM RELAYS

- Form C for greater versatility

DEW POINT SENSOR

- The heart of EdgeTech sensing reliability



4-20 mA CURRENT OUTPUT

- Scalable to drive peripheral devices

POWER

- Easy switch selection 115/220 VAC

0-5 VDC OUTPUT

- Scalable to drive peripheral devices

MIRROR CONDITION

- Digital check of mirror condition

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
 - program via front panel or remote serial port, your choice
 - isolated 4-20 mA option available

Specifications, Model 2001

Measurement Performance

Dew/Frost Point Range

-40 to +60°C (-40 to +140°F)—S1
-50 to +100°C (-58 to +212°F)—S2

Dew/Frost Point Accuracy

±0.2°C (0.3°F)

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

Functional

Power Requirements

100/115/230 VAC ±10%, 50-60 Hz,
75 watts maximum

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)

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 rated 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

4-digit LED data display
0.6 in. high digits
0.1°C/0.1°F resolution, (-)xxx.x C/F

Weight

7.0 kg (15.5 pounds), bench-top

Dimensions

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

Mounting

Bench-top (standard)

Sensor Materials

Rhodium mirror, glass, epoxy, and
anodized aluminum

Sensor Selections

S1, S2 are one- and two-stage flow-
through dew point (DP) sensors,
respectively

NOW AVAILABLE

S3

(95°C depression)

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/cm² (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.

■ EXPLOSION-PROOF SENSOR HOUSING

■ NEMA-4 WALL MOUNT ENCLOSURE

- For industrial applications

■ IN-LINE PARTICULATE/COALESCING FILTER

■ GR/LB, PPM_v (FIXED PRESSURE)

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:



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