DEWMASTER

DewMaster Highlights

- EdgeTech field-proven chilled mirror technology. One, two or three stage sensors available - integral or remote from controller. NIST traceable calibration certificate.
- Scrolling menu via front panel & RS232.
- Depression range choice of either 45, 65 or 95°C . (one, two or three-stage cooling)
- Automatic Balance Control (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.
- Dual alarm capability
  - User programmable.
  - Can be set for latching or auto-reset mode.
  - Form C for greater versatility.
- Serial and analog outputs.
- RS232 communication with terminal, printer, or computer
  - Remote programming.
  - Data output such as dew point and alarm status.
- 0-5 VDC, 4-20 mA, 0-10 VDC, or 0-20mA
  - User scalable to drive peripheral devices.
  - Available simultaneously, one output per measurement parameter.
  - Scalable throughout the entire operating range of psychrometric variables.
  - Program via front panel or remote serial port.
- Pressure transducer input for psychrometric variable.

Benefits

- EdgeTech field proven technology
- Capable of measuring dew point, absolute pressure, PPMv and other psychrometric variables
- Primary chilled mirror measurement of water vapor content in gas
- Wide measuring range (-75 to 100°C)
- Automatic correction for mirror contaminants
- Certified measurements against NIST traceable standards
- Standard features, where others charge extra
- Analog & RS232 outputs

Applications

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

Pro-Chem Analytik GmbH & Co.KG
Neuer Bruchweg 1, 46509 Xanten
Tel.: 02801/ 98510-70 Fax: 02801/ 98510-71
e-mail: info@prochem-online.com www.prochem-online.com

Measurement Performance

Dew/Frost Point and RH Ranges

-40 to 60°C (-40 TO 140°F), S1 & DS1
-50 to 100°C (-58 to 212°F), S2 & DS2
-75 to 100°C (-103 to 212°F), S3
0 to 100%RH
0 to 999,999 PPMv

Accuracy

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

Depression

45°C (81°F), S1 & DS1
65°C (117°F), S2 & DS2
95°C (171°F), S3

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

Packaging

Weight

2.75kg (6 pounds), bench-top

Dimensions

27.94 (W) x 13.2 (H) x 43.18 (D) cm,
(11 (W) x 5.2 (H) x 17 (D) in),
bench-top with S3 mounted

Mounting

Bench-top (standard)
Wall-mount NEMA-4 (optional)

Sensor Materials

Chromium, glass, epoxy, and anodized Aluminum

Sensor Selections

S1, S2, S3 are one, two, and three-stage flow through dew point (DP) sensors, respectively.

DS1 and DS2 are 1 and 2-stage insertion probe style (DP) sensors.

Functional

Power Requirements

90-230 VAC ±10%, 50-400Hz

Operating Temperature

Control Unit: -10 to 60°C (15 to 140°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 psia maximum, to augment depression capability of sensor when necessary.

Sample Pressure

0 to 20 bar (0 to 300 psia), S1, S2 and S3.

Sample Flow Rate

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

Outputs (3 outputs available)

4-20 mA, 0-5 VDC, RS232.

Track or Hold

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

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 -99.9 to 99.9°C (-148 to 212°F) from keyboard or RS232
Alarm, can be latched or unlatched.

Display

8 Line LCD.
Graphic data display, Backlight,
3 parameter display simultaneously.

Remote Mounting Kit

Remote sensor cable, standard length
10 ft (3m).
Special lengths up to 250ft (76m) available.

Accessories / Options

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 NEMA-4 enclosure, with bulkhead fittings.
Specify 115V or 230 VAC, 50 or 60 Hz.

Explosion-Proof Sensor Housing

NEMA-4 Wall Mount Enclosure

For industrial applications

In-Line Particulate/Coalescing Filter

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