DewTrak II

Chilled Mirror Dew Point Hygrometer

A Precision Dew Point Hygrometer for Industrial and Process Applications.

The Edgetech Instruments DewTrak II Dew Point/Humidity Transmitter is a compact, cost effective, first principle chilled mirror hygrometer designed to continuously measure the moisture content of gases. Housed in a weatherproof enclosure, its modular design is available in a variety of mechanical configurations to accommodate a wide array of applications.

The DewTrak II provides high accuracy with long term stability and repeatability. It uses the chilled mirror dew point temperature condensation principle to accurately determine the water vapor concentration in gas mixtures. The result is a highly precise yet durable moisture measurement device with a very long life cycle.

The Edgetech Instruments **D-Probe** sensor used with the DewTrak II may be mounted directly to the hygrometer's chassis for ambient air monitoring or it may be mounted remotely for insertion into glove boxes, HVAC ducts, environmental test chambers, circulation pipes, refrigerated storage rooms, engine test chambers and many other environments.

DewTrak II Hygrometer

Features:

- Precision, multi-sensor transmitter of dewpoint/humidity
- Primary standard chilled mirror sensor
- Provides high accuracy
- Long life, easily serviceable sensor
- Rapid response that quickly detects any change of conditions
- No false readings or accuracy drift
- First principle measurement requires no calibration
- Low cost of ownership
- Remote insertion or local wall mount sensor
- Flexible installation options
- Available with or without display
- Configurable analog outputs and alarm relay options plus bi-directional serial interface
- Communications adaptable to user requirements

Multiple display parameters:

- Dew/Frost point temperature °C/°F
- Percent relative humidity
- Parts per million by volume
- Parts per million by weight
- Grams per kilogram
- Grams per cubic meter
- Grains per pound
- Wet bulb temperature

Applications include:

- HVAC duct systems
- Critical purged atmospheres
- Glove box environmental chambers
- Pharmaceutical testing and isolation chambers
- Engine air intake and exhaust testing
- Modified atmosphere packaging
- Semiconductor manufacturing furnace and lithography
- Medical packaging
- Dryer efficiency
- Biologics and cell culture
- Fluidized beds
- Food storage and packaging
- Air make-up for clean rooms and data centers.
- Checking polymer and metal oxide probes

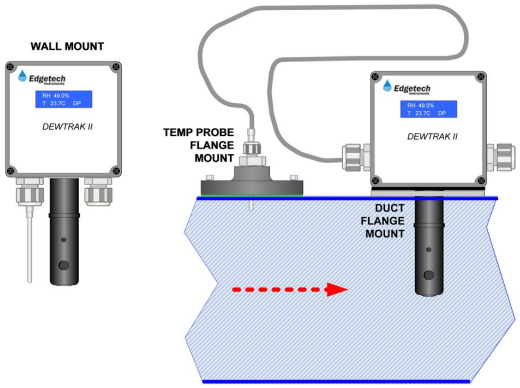
Made in USA

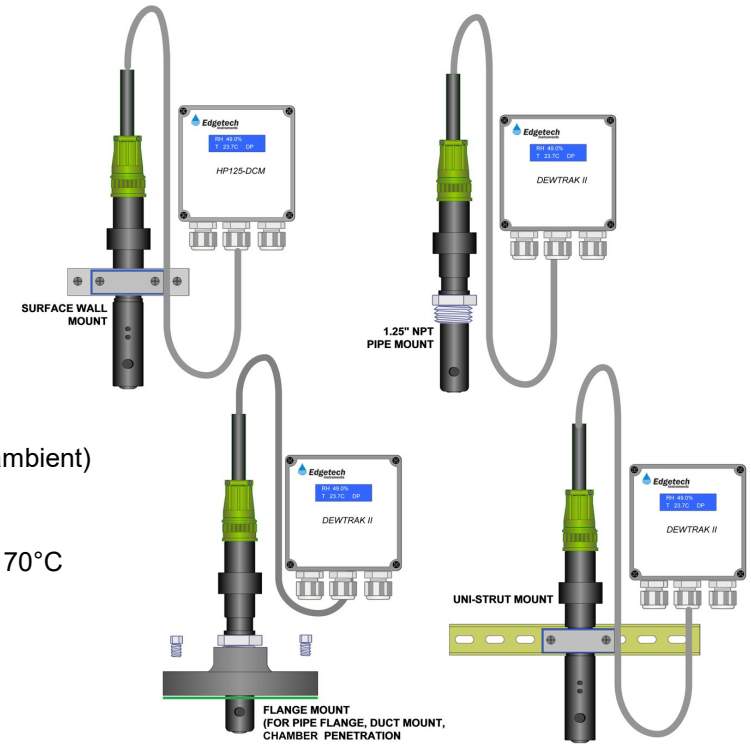
REV 6

Edgetech Instruments

Technical Specifications

DewTrak II





Measurement and Performance:

Measurement Ranges (D-Probe from 25°C ambient)

Dew Point (Standard) -20°C to 65°C
(-4F to 149°F)
Air Temperature Probe (Separate) -40C to 70°C
(-40°F to 158°F)
RH (Optional) 5% to 90%

Accuracy (in range):

Dew/Frost Point: ± 0.2°C (± 0.5gr/lb.)
Temperature (AT-Probe): ± 0.2°C

Hysteresis:

Negligible

Repeatability:

± 0.05°C dew/frost point (±0.1gr/lb.)

Response:

1°C/sec (2.7gr/lb./sec) not including settling time

Flow Rate:

Static to 3,000 linear ft./min

Pressure:

100 psig maximum

Functional:

Outputs:

Analog: 2, (4-20 mA / 0-5 VDC to 0-10 VDC selectable)
Serial: 1, (RS-232)
Mirror RTD (4 wire) resistance values

Load:

4 to 20mA: 0 to 250 ohms
0 to 5/10 VDC: 1 k ohm or higher

Relay Outputs:

2 programmable alarm relays:
K1: clean mirror / alarm 1
K2: servolock / alarm 2

Remote Cable:

Dew point: 10 ft. standard, 50 ft. maximum
Air temperature (Optional): 10 ft. standard, 50 ft. maximum

Mirror:

Standard,:chrome plated
Optional: platinum
TEC cooling, depression of 45°C from 25°C ambient

Power Supply:

24 VDC ± 20%, 1A maximum

EPA Noise Level:

< 0.02K

Weight:

3 lbs. (1.4 kg)

Dimensions:

Controller, 5 in. (130 mm) W x 5 in. (130 mm) H, x 4 in. (99 mm) D
Dew point probe, 9 in. (230 mm) L x 3 in. (80 mm) D
Temperature probe, 10 in. (250 mm) L x 0.4 in. (10mm) D

Toll Free: 800-279-3729 Ph: 508-263-5900 Fax: 508-486-9348
E-mail: h2o@edgetechinstruments.com
Web www.edgetechinstruments.com
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