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
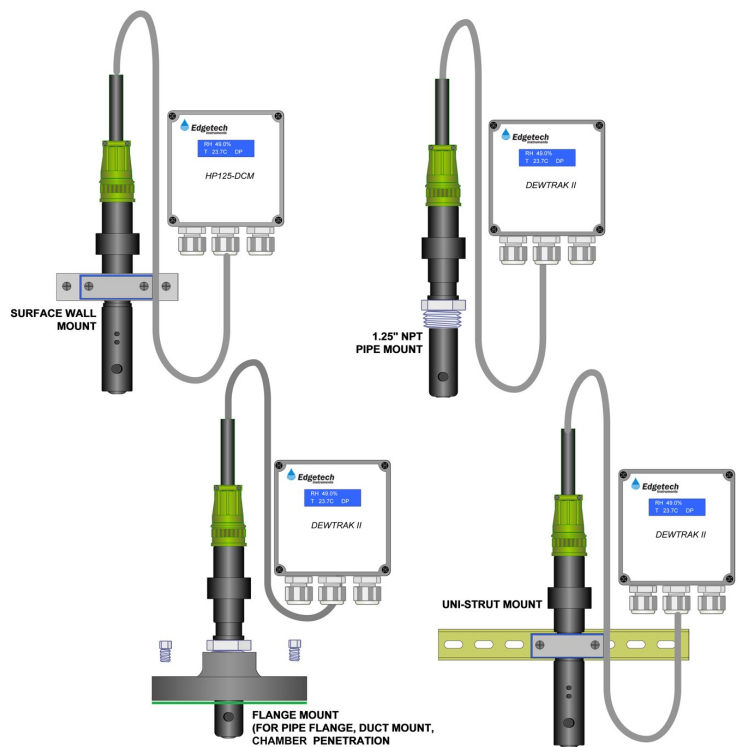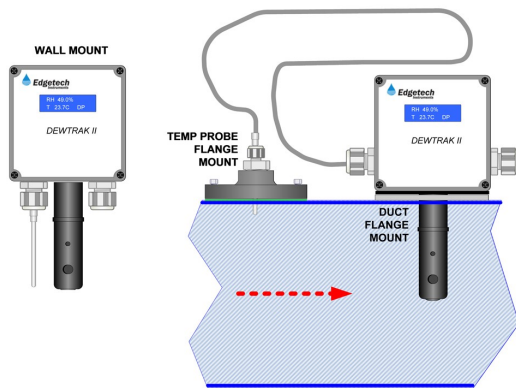
Multiple display parameters:

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

Edgetech Instruments

Technical Specifications

WALL MOUNT

TEMP PROBE FLANGE MOUNT

DUCT FLANGE MOUNT

SURFACE WALL MOUNT

HP125-DCM

1.25" NPT PIPE MOUNT

FLANGE MOUNT (FOR PIPE FLANGE, DUCT MOUNT, CHAMBER PENETRATION)

UNI-STRUT MOUNT

Measurement and Performance:

Ranges (at 25°C ambient)

Dew Point (Standard) -40°C to 60°C (-40°F to 140°F)

Air Temperature (Optional) -40°C to 60°C (-40°F to 140°F)

RH (Optional) 1% to 95%

Accuracy:

Dew/Frost Point: ± 0.2°C (± 0.5gr/lb.)

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 (consult Edgetech for elevated pressure)

Functional:

Outputs:

Analog: 2, (4-20 mA / 0-5 VDC to 0-10 VDC selectable)

Serial: 1, (RS-232)

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

Contact rating: normally open (NO) 3A at 25 VAC, or 30 VDC

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 or stainless steel

2 stages of cooling (TEC) with a depression of 60°C

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