



Using the DewTrak II Dew Point/ Humidity Transmitter

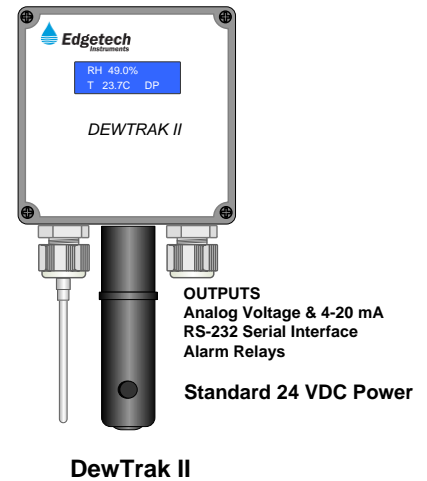
The Model DewTrak II™ Dew Point/Humidity Transmitter is a compact, cost effective, optical chilled mirror hygrometer. It is designed to continuously measure the moisture content in gases.

The DewTrak II uses the chilled mirror dew point temperature condensation principle to determine the water vapor concentration in gas mixtures, and a precision platinum resistance thermometer to measure the mirror temperature. With its modular design, it is available in a variety of mechanical configurations to accommodate a wide array of applications.

The D-Probe allows the sensor to be used in a wide array of applications. It may be mounted directly to the DewTrak II chassis for ambient air monitoring or it can be mounted remotely for direct insertion into glove boxes, HVAC ducts, environmental test chambers, circulation pipes, refrigerated storage rooms, engine test filter rooms, and many other manufacturing environments.

The DewTrak II control module offers many standard features including:

- PRIMARY STANDARD MEASUREMENT: Two Stage Chilled Mirror Sensor Probe
- Two selectable Analog Outputs (4-20 mA or Voltage)
- RS-232 Serial Interface
- Two programmable electrically isolated alarm relays
- 24VDC Power Input



Common Applications of the DewTrak II

HVAC Duct Systems: Primary Standard

Purged Atmosphere: Glove Box

Environmental Chambers

Isolation Chambers: PHARMA

Engine Testing: Air Intake& Exhaust

Modified Atmosphere Packaging

SEMICON: Furnace/ Lithography

Medical Packaging

Dryer Efficiency

Pharmaceutical Testing

Biologics & Cell Culture

Fluidized Beds

Food Storage / Packaging

Air Make-Up Clean Rooms & Data Centers

Edgetech Instruments Inc.

An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348

Using the DewTrak II Local Mount Sensor

The DewTrak II can be fitted with a local mounted chilled mirror sensor and optional Precision Air Temperature Sensor for monitoring ambient environments within buildings, clean rooms, glove boxes, test chambers, and isolation chambers. Very compact and economical, the Dewtrak II provides absolute, NIST Traceable measurements of Dew Point, RH and moisture for a variety of applications.

Using the DewTrak II Remote Probe Sensor

The DewTrak II can be fitted with a remote mounted chilled mirror sensor probe and optional Precision Air Temperature Sensor. Extremely versatile, the probe can be inserted into air circulation ducts, engine exhaust pipes, engine air intake manifolds, process chambers, isolation chambers- the applications are numerous! Simple and convenient, the remote probe comes standard in 3 m length but is available in longer lengths- inquire with your local dealer more information.

Features:

- Primary Standard Chilled Mirror Sensor
- Insertion probe or local wall mount
- Configurable Analog Outputs
- Configurable Relay Alarm Outputs
- Bi-Directional Serial Interface
- With or Without Display
- Standard 24 VDC powered, VAC optional

Benefits:

- Improved accuracy over typical probes
- Reduced foot-print with remote sensor
- Eliminate false readings
- Long Life, serviceable sensor
- Fast response in detecting upset conditions
- Save Money! Economical Solution
- Flexible Sensor Platform Choices

Environmental Configuration Options

- Wall Mount: IP65 Plastic enclosure or Aluminum Enclosure
- Surface Mount for installation within chambers or remote sensor on a wall
- Duct Mount: Sensor probe configured with a flange and gasket to seal in-situ penetration of typical HVAC air duct or sealed enclosure
- Pipe Mount; Sensor is fitted with 1/4" NPT male thread to adapt to a pipe
- Uni-Strut Mount: great for process skids, OEM equipment, upper ceiling mounting
- Remote Type: Tethered Sensor Probe may be installed close to measuring point

Edgetech Instruments Inc.

An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348

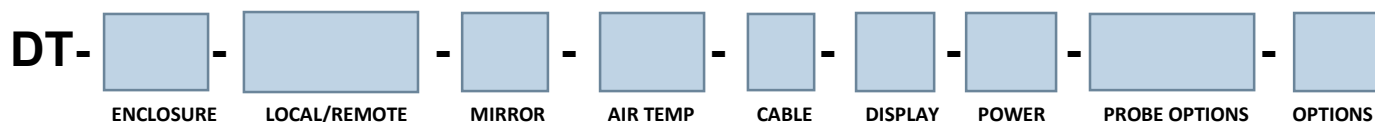
www.edgetechinstruments.com

Sensor/ Sampling Configuration Options

- All versions feature the D-Series probe type, chilled mirror sensor
- The D-probe may be mounted at the transmitter unit (*local*) or mounted (*remote*) tethered on a signal cable. (factory configured).
- The standard D-Probe is configured for direct diffusion sampling.
- To measure an extracted flow of sample gas, the optional Flow Through Cover (SC) or the Sample Chamber (SC1) may be installed onto the D-probe (includes fittings).
- A precision Air Temperature Probe is optional. It is typically installed in the same configuration as the Chilled Mirror probe (local or remote). Temperature measurement is required to calculate RH which is also displayed Relative Humidity.
- Depending on your application, you can choose the *ideal sensor* construction.

TO ORDER:

- Determine type of measurement: DewPoint, Relative Humidity, or Temperature. If you need to measure RH, then you also need to include the temperature probe.
 - Determine local mounted sensor(s) at control unit or remote mount sensor(s)
 - Determine sensor configuration
 - Determine the power input type. 24VDC is standard, 110/220 VAC is optional.
 - Determine if you need a local display
1. [Select type enclosure](#) based on the application
 2. [Select Local or Remote Sensor](#)
 3. [Select sensor mirror configuration based on sample gas constituents](#)
 4. [Select if you need precision air temperature sensor \(needed for RH%\)](#)
 5. [For remote sensor](#) choose standard length or longer remote sensor cables
 6. [Select Display or No Display](#)
 7. [Choose Power Options](#)
 8. [Select Special Sensor Probe Options](#) such as Pipe Mount, Flange Mount, Aspirator,...
 9. [Select Additional Options](#) such as special accuracy
 10. [List as separate line items additional choices such as Accessories, Calibration Packages, and Extended Warranty.](#)



For Example: [DT-PL-R-RD](#) is a Wall Mount IP65 Plastic Enclosure, Remote Sensor w/ local display
ONLY LIST OPTIONS CHOSEN

Edgetech Instruments Inc.

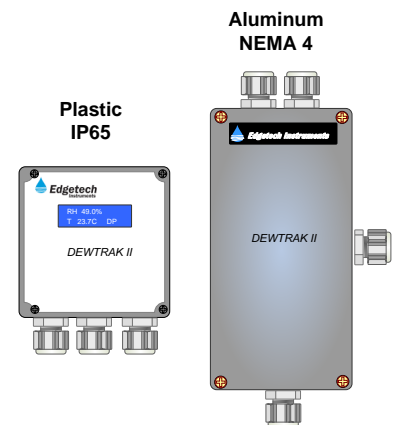
An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348 . www.edgetechinstruments.com

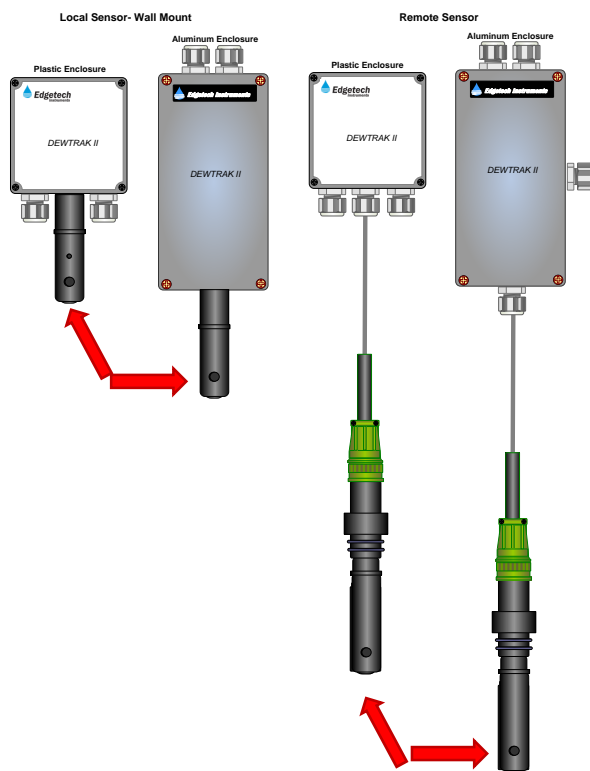
1. CHOOSE ENCLOSURE TYPE

- PL: PLASTIC IP 65 **Standard enclosure**
- AL: ALUMINUM NEMA 4 **for added durability**



2. CHOOSE LOCAL WALL MOUNT or REMOTE MOUNT SENSOR

- W: Wall Mount, Sensor is local at DewTrak Great for measuring ambient air or place the entire unit into chamber
- R: Remote Mount, Sensor is connected to DewTrak w/ 10 ft (3M) cable, place the sensor at the measured point



Edgetech Instruments Inc.

An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 Fax: +1 (508) 486-9348 www.edgetechinstruments.com

3: Choose Sensor Mirror Type for Chemical Compatibility

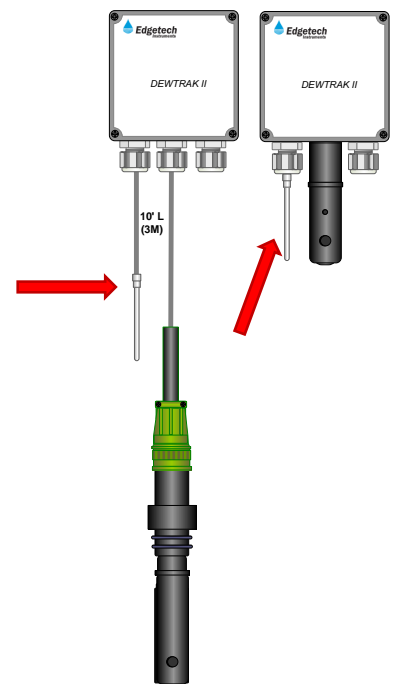
Applications CM Configuration	General Purpose Gases	Acids	Caustics	Salts	Organics	Nuclear Application	High Temperature
Chrome Plated Copper	A	D	D	C	C	D	C
316 Stainless Steel	A	B	B	B	B	C	B
Platinum	A	A	A	A	A	A	A

- A** Excellent
B Very Good
C Good
D Not recommended
NR Not Rated

4. CHOOSE IF YOU DESIRE PRECISION AIR TEMPERATURE SENSOR (REQUIRED FOR RH MEASUREMENT)

- ATDT/W Wall mount temperature probe
- ATDT/R Remote mount temperature probe 10' cable

Platinum Resistive Temperature Sensor



5. Additional Signal Cable Length for Remote Probes

- ECDT Additional cable length, up to 50 feet(15.24m) for both AT and dew point sensor
This increases both the Chilled Mirror Sensor and Air Temp Probe Cables
- ECDT1 Additional cable length, up to 50 feet(15.24m) for AT only
- ECDT2 Additional cable length, up to 50 feet(15.24m) for CM Sensor only

Edgetech Instruments Inc.
An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348 . www.edgetechinstruments.com

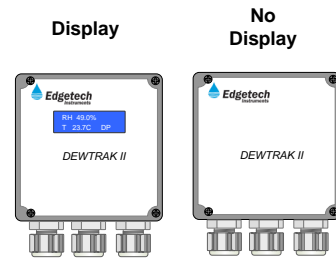
6. CHOOSE DISPLAY OR NO-DISPLAY

No designation = No Display

-RD for plastic enclosure

Not available with the aluminum enclosure

2 Line display of measured parameters and alarm conditions

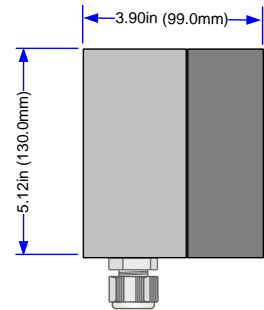


7. Choose Power Options:

No Designator: Standard is 24 VDC. No adder

-ACDT: 85 to 230VAC 50/60Hz power supply

(Enclosure Height Increase, see figure to the right)



8. Choose Special Options for D-Probe:

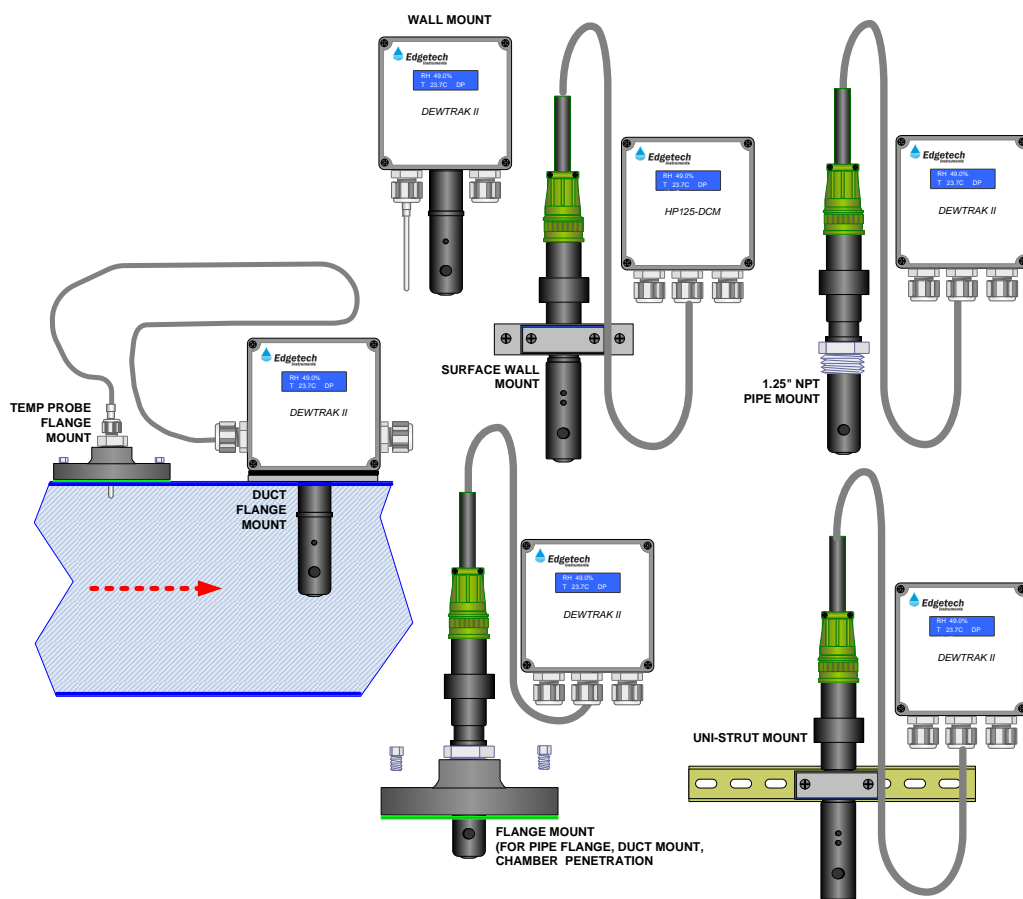
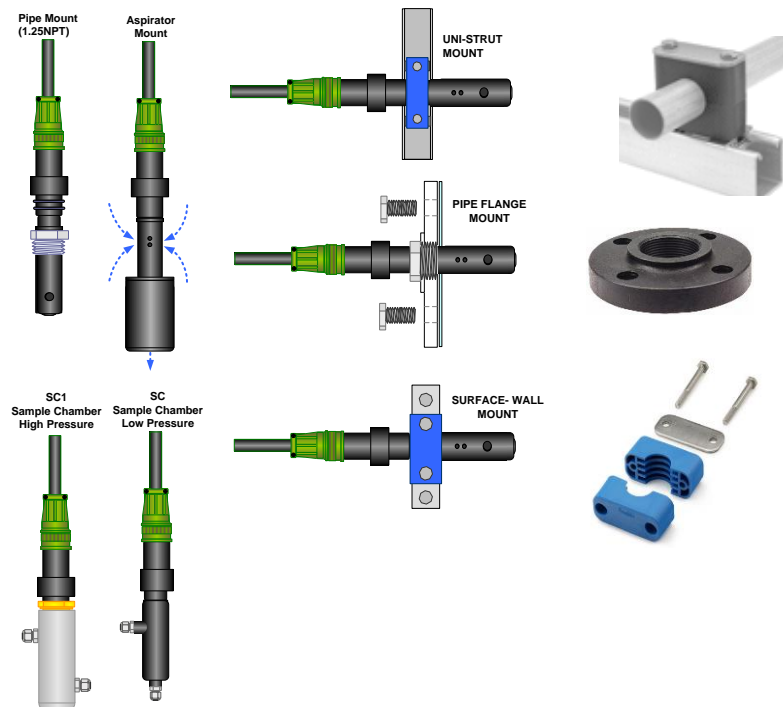
- D Duct Mount Flange w/ Seal. This option only available for Local Wall Mount Sensor Enclosures
- TFM Temperature Probe Flange Mount. 4inch diameter PVC flange w/ gasket assembly for AT
- AR Aspirator Mount, this features a built in aspirator to extract a gas sample from the surrounding area
Great for room air, isolation chamber, test cell, or glove box monitoring
- P Pipe Mount, mounts to the D-Probe and allows 1.25inch Male NPT port on the probe
Connect directly to air headers, process piping, or enclosure penetrations
- F Pipe Flange Mount w/ Gasket, The D-Probe gets installed into a 4inch diameter Grey PVC Flange with Rubber gasket seal, 4 bolt install. For use with Pipe Flanges, isolation chamber, and HVAC DUCT Mounting. **A rubber gasket seals the flange to a matching 4" flange, DUCT, or chamber wall.**
- SM Surface Wall Mount, The D-Probe is retained between two polypropylene blocks w/ bracket
Great for ambient air, isolation chamber, or glove box monitoring by diffusion flow.
- US Uni-Strut Mount, Same as the surface mount except the blocks are mounted on a unistrut clamp.
Connect to standard unit-strut for adjustable location within industrial applications. Great for process skids, dryer, clean rooms, isolation chamber, or glove box. Uni-Strut not provided.
- SC1 Sample Chamber High Pressure (up to 100psig), Permanently connected to probe .
Converts the D-Probe from diffusion sampling to flow through sampling. Provides ¼ inch compression fittings for connection to tubing. Can be used with the SMU vacuum Pump or with positive pressure samples up to 100 psig.
- SC Sample Chamber Low Pressure, same as -SC1, not permanent but is Slip-On. **Converts the D-Probe from diffusion sampling to flow through sampling. Provides ¼ inch compression fittings for connection to tubing. Can be used with the SMU Pump or positive pressure up to 1 psig.**

Edgetech Instruments Inc.

An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348 . www.edgetechinstruments.com



Edgetech Instruments Inc.
An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348 . www.edgetechinstruments.com

9 Additional Options

-RTD Secondary RTD output that directly measures mirror temperature (Resistive). For use in systems where redundant direct measurement of chilled mirror surface is required.

-SA/0.1 Special Accuracy $\pm 0.1^\circ\text{C}$ Dew Point

-SA/0.15 Special Accuracy $\pm 0.15^\circ\text{C}$ Dew Point

ACCESSORIES/ SPARE PARTS/ SERVICES:

- SMU: Sample Pump 115/ 230 VAC powered

Includes On/Off switch, controlled Flow

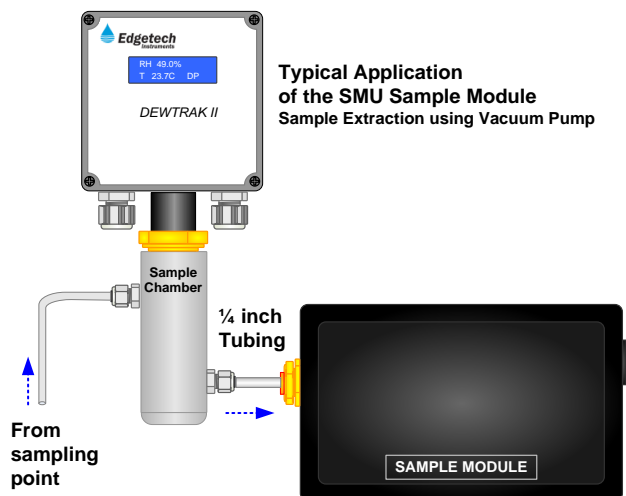
Diagram at right shown with optional sample chamber

-SC/D Spare SC1 Cover

-SC/S Spare SC Cap

-CG Spare Cord Grip for cable entry

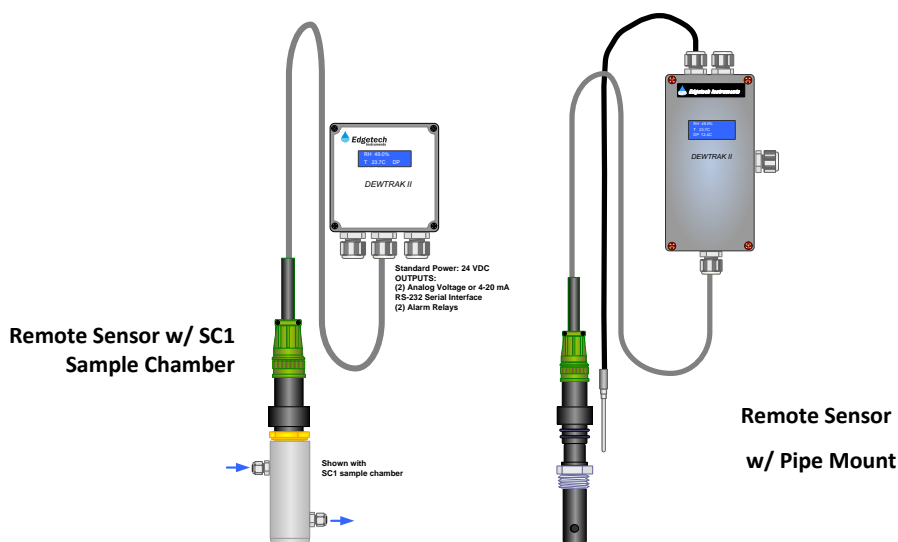
-RG Spare Rubber Gasket for Flange Mount



-3YEW 3 Year Extended Warranty, includes any repairs within the warranty statement

-3YNIST1P 3 CALIBRATIONS FOR THE PRICE OF 2, INCLUDES NIST TRACEABLE CERTIFICATE (DEW POINT)

-3YNIST2P 3 CALIBRATIONS FOR THE PRICE OF 2, INCLUDES NIST TRACEABLE CERT. (2 PARAMETERS)



Edgetech Instruments Inc.

An ISO 9001 Certified Company

399 River Road . Hudson . MA . 01749

Main: +1 (508) 263-5900 . Fax: +1 (508) 486-9348 . www.edgetechinstruments.com