

## ***DewTrak-DE Precision Chilled Mirror Hygrometer for Engine Testing***

**APPLICATION:** The Edgetech Instruments DewTrak-DE is a precision, multi-sensor transmitter that measures dew/frost point, temperature and barometric pressure for combustion engine testing. It is suitable for use on **Diesel, Gasoline, or Natural Gas** fuel powered engines. The DewTrak-DE can measure multiple parameters including air intake dew point, temperature and pressure. The DewTrak-DE meets or exceeds the requirements for measuring multiple parameters of the air intake to combustion engines as given in 40 CFR. The Dx sensor probe features 1.25" threads that can be inserted directly into air intake pipe flanged ports, threaded bosses, or air ducts. For direct testing on vehicles, it can simply be suspended at the engine air intake. For use on all types of combustion engines including Automobiles, Locomotives, Marine, Off Road, Farm Equipment, Generators and Gas Turbines.

**DESCRIPTION:** Fully tailored to the application, the transmitter relies on the primary standard method of measuring dew point with the highly accurate chilled mirror sensor. A unique feature of the DewTrak is the integration of precision temperature and pressure sensors into the Dx chilled mirror probe. This allows the Dewtrak-DE to provide highly accurate DewPoint measurements expressed as °C or °F temperature or in Grains/ Lb or Grains/Kg. Accuracy of the Dew Point measurement is  $\pm 0.2^{\circ}\text{C}$  far exceeding the  $0.5^{\circ}\text{C}$  listed in 40 CFR. Other approaches typically require multiple analyzers, but with the DewTrak-DE, all required environmental parameters are measured with one instrument. The user simply locates dew/frost point and temperature probes at the engine's air intake and records the measured barometric pressure, dew/frost point and temperature. Analog and digital communications are standard. Based on the company's DewTrak II dew/frost point analyzer, the DewTrak-DE assures absolute knowledge of dew/frost point using the primary method, long-life, chilled mirror technique while a platinum resistance thermometer measures the temperature and a MEMS based sensor measures barometric pressure. A NIST traceability certificate is issued for all measured parameters. The unit comes with a two stage chill mirror sensor (insertion probe style,  $65^{\circ}\text{C}$  depression), barometric sensor, 24Vdc input power supply, a manifold adapter kit, two selectable analog outputs, RS232 (bi-directional), two programmable alarm relays, LCD display, reads in grains/lb, barometric pressure & dew point, instruction manual & one year warranty. Standard power is 24 VDC but an optional universal VAC power adapter may be used to allow the system to be powered by connection at any VAC power outlet.



Two models are available: **Dewtrak-DER** remote mounted sensor on a 10' cable (3m) or the **Dewtrak-DEL** local wall mounted system (sensor is mounted directly to the control module chassis at the bottom).

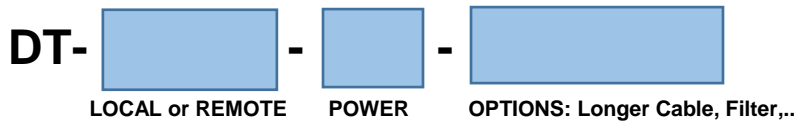
### **Sensor/ Sampling Configuration Options**

- All versions feature the Dx multi-sense chilled mirror probe with integrated pressure and temperature sensors. The aspirator fan is also standard in the DewTrak-DE. The aspirator ensures circulation of air sample into the sensing chamber of the Dx probe.
- The Dx-probe may be mounted at the transmitter (*DEL*) or mounted remote (*DER*) tethered on a signal cable.
- All DewTrak-DE units feature an IP65 Plastic enclosure, local display, and aspirated sample.
- The Sensor is a threaded port (1.25" Male NPT) that can be inserted into pipes or ducts on the air intake.
- For direct testing on a vehicle, the remote sensor probe may be suspended in the air path at engine air intake.

- For Filter Rooms, the DewTrak-DE is wall mounted with the local sensor option. Air diffuses into the sensor.

**TO ORDER:**

- Determine local mounted sensor at control unit (DT-DEL) or remote mount sensor (DT-DER).
  - Determine the power input type. 24VDC is standard, Universal VAC Power 90-260, 50/60 Hz VAC is optional.
  - Choose mirror type. Chrome is standard.
  - Determine accessories or spare parts
1. Select Wall Mount or Remote Sensor
  2. Choose standard 24 VDC power or optional Universal VAC power
  3. Choose Mirror Type: STD=Chrome, ENH=SS, MAX= Platinum
  4. For remote sensor choose standard length (10') or longer remote sensor cables
  5. Choose Options such as longer cable on the remote sensor version, sample filter, Special Accuracies,...
  6. List as separate line items additional choices: Accessories, Calibration Packages, & Ext. Warranty.



For Example: **DT – DEL - DC** is a Wall Mounted unit w/ local mounted sensor, operating on 24 VDC power  
 $\$3232 + \$0 = \$3232$

**DT – DER – AC - FLT** is remote sensor unit operating on VAC power with filter option  
 $\$3812 + \$275 + \$150 = \$4,237$

**STEP 1: Local or Remote Sensor:**

<b>DEL</b>	wall mount with local sensor	<b>\$ 3,232.00</b>
<b>DER</b>	remote mounted sensor on 10' (3m) cable	<b>\$ 3,812.00</b>

**STEP 2: Standard 24 VDC or Universal VAC Power**

<b>DC</b>	24 VDC power	<b>\$ 0.00</b>
<b>VAC</b>	Universal Power 90-260 VAC 50/60 HZ (enclosure is slightly deeper):	<b>\$ 275.00</b>

**STEP 3: Choose Sensor Mirror Type for Chemical Compatibility**

<b>STD</b>	Standard Resistance-Chrome Mirror	<b>No Charge</b>
<b>ENH</b>	Enhanced Resistance Stainless Steel Mirror	<b>\$ 250.00</b>
<b>MAX</b>	Maximum Resistance-Platinum Mirror	<b>\$ 440.00</b>

Applications CM Configuration	General Purpose Gases	Acids	Caustics	Salts	Organics	Nuclear Application	High Temperature
STD: Chrome	A	D	D	C	C	D	C
EHN: Stainless Steel	A	B	B	B	B	C	B
MAX: Platinum	A	A	A	A	A	A	A

<b>A</b>	Excellent
<b>B</b>	Very Good
<b>C</b>	Good
<b>D</b>	Not recommended

**STEP 4: Options**

-FLT	40 micron filter built into the Dx probe cover reduces dust contamination of mirror	\$ 150.00
-EC##	Additional cable length (up to 50 feet) for the dew point sensor (## is the # of feet) <b>(For remote sensor configuration only- only list amount greater than 10')</b>	\$ 4.00/FT

**STEP 5: Choose Accessories**

FNG	Pipe Flange Mount w/ Gasket, The Dx-Probe gets installed into a 4inch dia PVC Flange/ gasket seal, 4 bolt install. For use with Pipe Flanges, isolation chamber, and HVAC DUCT mounting	\$ 150.00
CASE1550	Rugged Portable Foam Padded Carrying case for transporting the DT-DE	\$ 385.00
SCx	Add this option for the Dx sensor to provide ¼ inch compression inlet and outlet ports, Al	\$ 578.00

**Extended Warranty/Calibration Options: Please list as separate line items:**

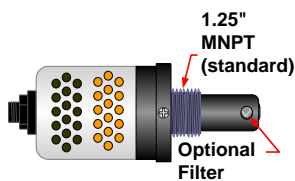
3EXTW	3 Year Extended Warranty includes repairs covered in the warranty statement	10% of TOTAL
3YNIST2P	3 NIST Traceable Calibrations for the price of 2 (2 Parameters)	\$ 1,430.00



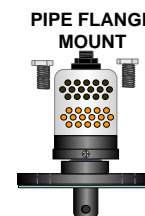
CASE 1550 transportation case



SCx Sample Chamber



FLT Filter: 40u



FLG Flange w/ Gasket