Edgetech Instruments

2018 PRICE LIST

Rev. 2 December 13, 2017

DewTrak II- MO Dew Point / Humidity Transmitter for Octane Testing

APPLICATION: The most accurate way of testing the actual octane value of gasoline is to use a Combustion Fuel Research (CFR) engine (also known as a knock engine). Currently the American Society for Testing and Materials (ASTM) uses the CFR engine method, developed in the 1920s to obtain official octane measurements. The CFR engine measures octane by combusting the fuel and physically measuring the knock that occurs. These tests have a repeatability (same operator/same lab) of 0.2 RON, and a reproducibility (different operators in different labs) of 0.7 RON. Each sample is tested for research octane number (RON) as prescribed by ASTM Method D2699.

DT/MO-PL-D **DT/MO-PL-R**

A humidity control system – either an ice tower and related equipment , or an intake air refrigeration unit – manages the moisture content of the combustion air going into the CFR octane rating unit. The moisture content affects engine performance and thus must be maintained and confirmed to specific level concentrations. Maintaining humidity levels at a constant 25-50 grains of moisture /lb of dry air is prescribed by the ASTM method for producing consistent octane ratings.

The Model DewtrakII-MO dew point/humidity transmitter is a highly accurate, optical chill mirror hygrometer designed to continuously measure the moisture content and Barometric pressure in the motor octane testing process. It is used to monitor and ensure compliance with test standards ASTM D2700, D2699, D2885. It guarantees measurement compliance for allowable Humidity range between 25–50 gr/lb & Pressure 21–30 in Hg (0.1 in Hg).

Using a special duct mount sampling system, the DewtrakII-MO sensor is mounted on the air intake duct to the ”Knock” engine to confirm the moisture content of incoming air to be combusted within the engine.

The Customer base includes motor octane testing laboratories within refineries, private octane testing laboratories, companies that produce known octane test standards and gasoline additives, manufacturers of Knock engines (Waukesha), manufacturers of refrigerated air intake systems, and manufacturers of support equipment and services to the industry.

DESCRIPTION: The DewTrakII MO powered by 24Vdc and can be easily fitted to existing air intake duct feeding Knock engine systems. It is specifically designed to measure conditions required for Motor Octane (MON),& Research Octane (RON) It uses the highly accurate and dependable chilled mirror dew point temperature condensation principle to determine the water vapor concentration of the motor intake air fuel mix. A barometric pressure sensor is also provided to convert the dew point temperature reading to Grains/ Lb or Grains / Kg.

The unit comes with a two stage chill mirror sensor (insertion probe style, 60°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. 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: DewtrakII-MO with remote sensor on a 10’ cable (preferred method) and the DewtrakII-MO wall mount system (sensor is mounted directly to the control module chassis at the bottom).

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Sensor/ Sampling Configuration Options

- All versions feature the D-Series probe type, chilled mirror sensor
- The D-probe may be mounted at the transmitter (*Duct mount*) or mounted (*remote)* tethered on a signal cable.
- All DewTrak/MO units feature an IP65 Plastic enclosure. With the Duct Mount, the control module goes directly onto DUCT and with the Remote sensor version, the control module is wall mounted via (4) mounting holes.
- Base models include the manifold adaptor kit. Spare adapter kits may be ordered if you want to share the Dewtrak MO on several engines. In this case, the manifold plug is inserted on engine ducts that are not currently under analysis.
- The manifold adapter kit is held in place onto the duct via pipe clamps. A set is included with every manifold adapter.
- Although the Duct mount is available, most USERS prefer the remote mount to avoid excess vibration on the instrument and to allow easy viewing of the display.
- The standard model is powered by 24 VDC but an optional VAC power adapter may be added to allow the User to plug the unit into a standard VAC wall outlet.

TO ORDER:

- Determine local mounted sensor at control unit (DT/MO-PL-D) or remote mount sensor (DT/MO-PL-R). Remote mount sensor is the most popular for easy viewing and avoiding excessive vibration on the instrument.
- Determine the power input type. 24VDC is standard,110/220 VAC is optional.
- Determine accessories or spare parts

1. Select Duct Mount or Remote Sensor
2. For remote sensor choose standard length (10') or longer remote sensor cables
3. Choose Options
4. List as separate line items additional choices: Accessories, Calibration Packages, & Ext. Warranty.

DT/MO-PL - [ ] **-** [ ] **-** [ ]

DUCT/REMOTE | OPTIONS: CABLE LENGTH (for remote only) | OPTIONS: POWER ADAPTER

For Example: DT/MO-PL-R-PS is a Wall Mount with Remote Sensor (10' cable) and VAC Power Adapter

$4,235 + 75 = $4,310

-PL-R	Remote mount with an IP65 enclosure, 10' foot cable between sensor and electronics	**$ 4,235.00**
-PL-D	Duct mount with an IP65 enclosure	**$ 3,878.00**

OPTIONS:

-PS	**POWER ADAPTER PLUG-** Universal supply (85 to 230 Vac) 6' long cable	**$ 75.00**
-EC##	Additional cable length (up to 50 feet) for the dew point sensor (## is the # of feet) **(For remote sensor configuration only- only list amount greater than 10')**	**$ 4.00/ft.**

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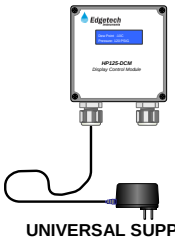
Accessories/ Spare Parts:

-DT/MO-PL-RN	DewTrak II dew point/grains/lb transmitter with remote sensor (no manifold kit)	**$ 3,355.00**
-DT/MO-PL-DN	DewTrak II dew point/grains/lb transmitter with local sensor (no manifold kit)	**$ 2,998.00**
-DT/MO-PC	Adjustable pipe clamps (Qty 2	**$ 77.00**
-DT/MO-MAK	Manifold adapter kit: includes adapter plate, 2 pipe clamps, plug & sample chamber	**$ 935.00**
-DT/MO-PLG	Manifold adapter kit plug	**$ 138.00**
-D2	Two stage chill mirror sensor	**$ 1,925.00**
CASE1550	Rugged Portable Foam Padded Carrying case for transporting the Control Module	**$ 385.00**

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 PRICE**
3YNIST1P	3 NIST Traceable Calibrations for the price of 2 (1 Parameter)	**$ 1,210.00**
3YNIST2P	3 NIST Traceable Calibrations for the price of 2 (2 Parameters)	**$ 1,430.00**


UNIVERSAL SUPPLY


PIPE CLAMPS


MANIFOLD ADAPTER KIT


MANIFOLD PLUG


CASE 1550 transportation case