

# DewTech 390

**Chilled Mirror Hygrometer with  $-90^{\circ}\text{C}$  to  $+20^{\circ}\text{C}$  Dew/Frost Point Range**

The Edgetech Instruments DewTech 390 is a precision hygrometer system that features measurement of an extremely wide range of dew/frost point or trace moisture in a variety of background gases, all at a very attractive price. Based on the primary method chilled mirror sensor technique, it assures highly accurate measurement of dew/frost point temperature to as low as  $-90^{\circ}\text{C}$  frost point and as high as  $+20^{\circ}\text{C}$  dew point.

At the core of the DewTech 390 is a primary method, three stage Peltier cooled chilled mirror sensor. For peak efficiency, the performance of the Peltier is maximized through an integral cryo-cooling refrigeration system giving it very wide rangeability.

The DewTech 390 is ideal for metrology labs, scientific research, low dew/frost point process measurements or any application where high precision measurement of dew/frost point over a wide range with fast response and high stability are required.

The DewTech 390 features a user-friendly display panel, an easy access sensor, plus multiple outputs and alarm capability. Standard configurations include bench top or 19 inch rack mount with front sensor access for easy cleaning and inspection.

All Edgetech Instruments dew/frost point hygrometers are manufactured and supported in the USA in a modern, ISO 9001:2015 registered facility with ISO/IEC 17025:2005 accredited calibration laboratory. The DewTech 390 is delivered with a NIST traceability certificate.

## Features:

- Measures dew/frost point in gases to as low as  $-90^{\circ}\text{C}$  ( $-130^{\circ}\text{F}$ )
- Periodic recalibration is not required
- Displays moisture concentration at atmospheric pressure or compensates for pressure variations with input from a pressure transducer
- Can be configured to display temperature or pressure as well as dew/frost point
- User programmable dual alarm capability can be set for latching or auto-reset mode
- Programmable via front panel or by remote access
- Data outputs include dew/frost point and alarm status
- Analog and serial outputs include RS232 communication with terminal, printer or computer
- Scalable throughout the entire operating range of psychrometric variables



**The Edgetech Instruments DewTech 390**

## Applications:

- Educational institutions
- Furnaces
- Government agencies
- Medical gas
- Metrology
- Pharmaceuticals
- Plastics
- Power and energy
- Semiconductor fab
- R&D test & measurement
- Vacuum systems



**Made in USA**



**Edgetech Instruments**

ISO/IEC 17025:2005 Accredited  
ISO 9001:2015 Registered

## Technical Specifications

### Sensor:

Three stage Peltier cooled chilled mirror with additional refrigeration

### Measurement Range:

Dew/frost point,  $-90^{\circ}\text{C}$  to  $20^{\circ}\text{C}$ , ( $-130$  to  $68^{\circ}\text{F}$ )

### Accuracy:

Dew/frost point,  $\pm 0.2^{\circ}\text{C}$

$\pm 0.1^{\circ}\text{C}$  available on request

### Automatic Balance Control (ABC):

Automatically corrects for most mirror contaminants

Automatically rebalances the optics at start up

Programmable ABC interval for unattended operation

### Display:

Scrolling 8 Line graphic data display with backlight

Dew/frost point temperature in  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$

Relative humidity, ambient temperature,  $\text{ppm}_v$  and pressure

### Inputs:

Pressure transducer input for psychrometric variable calculations

Temperature sensor for relative humidity calculation optional

### Outputs:

0 to 5 Vdc, 4 to 20 mA, 0 to 10 Vdc, or 0 to 20 mA

User scalable, available simultaneously, one output per measurement parameter

### Power:

110 to 230 Vac, 50/60 Hz

### Sample Pressure:

0 to 75 psia (0 to 5 bar)

### Sample Flow Rate:

0.5 to 5.0 SCFH (0.25 to 2.4 liters/minute)

### Dimensions:

23.62 x 20.47 x 17.13 in (600 x 520 x 435 mm)

### Packed Dimensions:

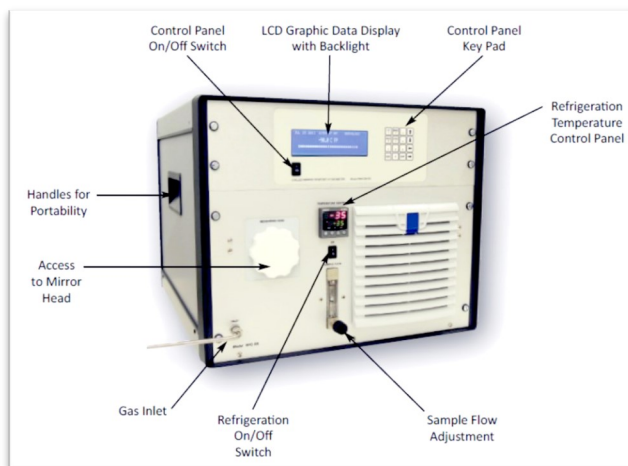
29.13 x 26.77 x 22.23 in (740 x 680 x 590 mm)

### Weight:

103 lb. (47 kg)

### Packed Weight:

154 lb. (70 kg)



The DewTech 390



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