

# Cermax

## Portable Dewpointmeter

A high specification portable hygrometer that gives a wide operating range, extremely fast response and a host of user-definable features such as data logging and multiple display options



### Features

- Simple and user friendly operation
- Fast response speed
- Readings from -120°C to +30°C
- High accuracy ( $\pm 1^\circ\text{C}$ )
- Long battery life for continuous field measurements
- Full self-contained
- Self diagnostics for easy operation
- Integrated data logging
- Dew point measurement pressure compensated

### Applications

- Compressed air
- Medical gases
- Pure gases
- Plastic drying
- Metallurgy / heat treating
- Military / defense
- Power generation
- Pharmaceutical
- Aerospace
- ... and many more

## The Most Complete Portable Hygrometer

Packed full of features and with a performance to match, Cermax sets the standard amongst portable hygrometers. Delivered with a traceable calibration to  $\pm 1^\circ\text{C}$  dew point accuracy, Cermax is ready to use, out of the box. It is extremely easy to operate, yet allows the advanced user to perform more complex functions, like pressure compensation, parameter selections, data logging, etc. No other instrument looks or performs such as Cermax.

## Easy Operation

Cermax is fully self-contained - no external services are required. Simply connect a clean sample gas to the Swagelok® inlet port, turn on the power and within seconds Cermax is ready to display the measured dew point of the sample gas under test. For process gas applications, a range of 'bolt on' sampling systems are available.

## Extremely Fast Response

Our users always rate a fast speed of response as the key feature of a portable hygrometer. Cermax has been designed with this in mind. With an inherently fast Ceramic Moisture Sensor and a minimum volume stainless steel sample housing, Cermax has a head start on the competition. Add to this Cermax's user selectable field operation mode that allows even ppm level measurements to be made in a few minutes and the result is a world-class hygrometer with superior performance.

## Accurate Measurement

The combination of advanced sensor technology and measurement circuitry give Cermax a standard measurement range from  $-100$  to  $+20^\circ\text{C}$  dew point with indication down to  $-120^\circ\text{C}$  and up to  $+30^\circ\text{C}$  dew point. Cermax offers a measurement accuracy of  $\pm 1^\circ\text{C}$  dew point in the range  $+20$  to  $-59.9^\circ\text{C}$  dp and  $\pm 2^\circ\text{C}$  dew point in the range  $-100$  to  $-60^\circ\text{C}$  dp. Resolution is  $0.1^\circ\text{C}$  dew point across the entire calibration range.

## User Friendly Display

Cermax's programmable display interface gives an almost instant display of the measured dew point. Its clear LCD can easily be set, using the intuitive drop-down menu, to show a wide variety primary and secondary measurement data, including dew point in  $^\circ\text{C}$ ,  $^\circ\text{F}$  and  $\text{K}$ ;  $\text{ppm}_v$ ,  $\text{ppm}_w$  for a number of gases,  $\text{gm}^{-3}$ ,  $\text{Lb/mmscf}$  and  $\%$  rh. System pressure or temperature can be input to the instrument to provide active compensation.

[www.michell.com](http://www.michell.com)

# Cermax

## Portable Dewpointmeter

1/8" Swagelok Gas Connections

Clear, easy to read display with multiple engineering units

Robust keypad

Rugged but lightweight housing



## Related Products



Cermax I.S.

Easidew Portable

## Data Logging Facility

Built into the instrument is a logging system that can store up to 10,000 measurement points. The logger will store both dew point and the second process variable (temperature or pressure), along with tag and time information. Logging start time, interval and test duration are all selected from the instrument's drop down menu. Once the log has been taken, data can be downloaded onto a PC using Windows™ Terminal or a similar data transfer program.

## Lightweight Construction

Weighing a total of 3 kg, Cermax is one of the lightest portable instruments available. This is not, however, at the expense of robustness. The strong moulded polyurethane carry case gives the optimum combination of physical strength and low mass and is practical too, giving an IP65 (NEMA 4) protection rating. An optional woven carry bag is ideal for storage of sampling system, pipework etc and for transportation when Cermax is not in use.



Cermax Portable Dewpointmeter

## Long Battery Life

Cermax uses a sealed rechargeable battery pack which gives an average usage time of more than 8 hours between charges, at normal room temperature. The battery pack is easily removable and spare battery packs are available so that the instrument can be permanently operational, if required.

Charging can be achieved either by removal of a battery pack or via the integral charger jack socket.

High accuracy

Display and Keypad cover

Quick operation guide

Carry handle



Easidew TX

Cermet II

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice.



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## Portable Dewpointmeter

### Technical Specifications

Gas wetted parts	316 stainless steel
Gas connections	1/8" Swagelok® inlet and outlet couplings
Display	240 x 64 dot matrix LCD
Range	Calibrated from -100 to +20°C dew point; readings to -120 and +30°C dew point
Accuracy	±1°C from -59.9 to +20°C dew point; ±2°C from -100 to -60°C dew point
Resolution	0.1°C dew point (3 significant figures for all other units)
Units	°C, °F, K dew point; ppm <sub>v</sub> ; ppm <sub>w</sub> for air, N <sub>2</sub> , H <sub>2</sub> , SF <sub>6</sub> , CO <sub>2</sub> , natural gas; gm <sup>-3</sup> (natural gas); Lb/mmscf (natural gas), % rh
Secondary input	0-20 mA or 4-20 mA for temp or pressure
Data storage	Up to 10,000 samples of primary and secondary variable, time and date stamp and ident number
Communications	RS232C
Power	Internal re-chargeable battery pack (removable) charged by external AC powered charger (supplied). 8 hours normal operation between charges.
Case	Custom polyurethane case with integral padded carry handle
Dimensions	250 W x 300 D x 150 H mm approx
Weight	3 kg
Ingress protection	IP65 (NEMA 4)
Operating temperature	-20 to +50°C
Storage temperature	-65 to +65°C
Operating pressure	30 MPa (300 Barg) max.
Flow rate	0.5 to 5 Nlmin <sup>-1</sup>

#### OPTIONS:

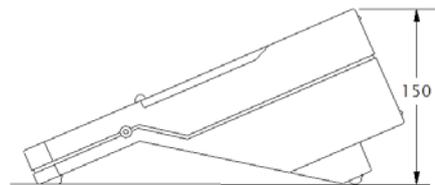
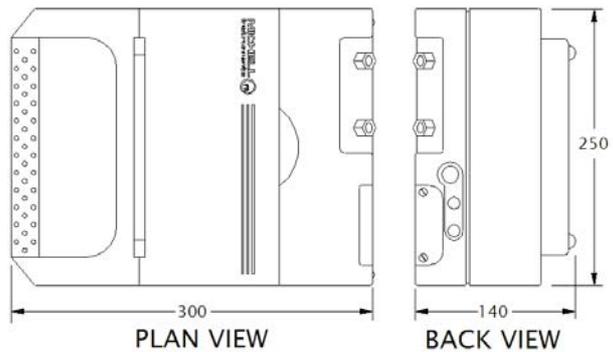
**Carry Bag** - Lightweight, padded carry bag made from woven cotton for Cermax and accessories

**Shoulder Strap** - Shoulder carry strap for Cermax Portable Dewpointmeter.

**Sampling Systems** - (as shown on right) Designed for sample conditioning for specific applications.

### Dimensions

Dimensions mm



SIDE VIEW



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Please note: The accuracy stated represents the typical variation between the instruments under test and a calibrated and corrected reference.

Please contact us for latest version: Cermax: Ref: CMX-STD-0707

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