

PCE-313 A hydrometer
internal memory, RS-232 interface and software (in English)

The PCE-313 A hydrometer is for professional use in taking technical measurements in meteorology. The hydrometer measures both temperature and relative humidity. The device's internal data memory has a capacity to store 16,000 readings, allowing the flexibility to choose storage intervals or to set the device to act as a data logger for longer durations. The hydrometer can be programmed or adjusted via a computer allowing it to be set to take measurements in situ over an extended period of time. After readings have been taken, this data can be transferred from the hydrometer's internal memory to a computer allowing it to be analysed or exported to another software package such as Excel or Access.

Temperature is measured using a Thermistor, a polymer based humidity sensor by capacitance. The sensor connects to the hydrometer by way of a 1.2m long spiral cable.



PCE-313 A hydrometer

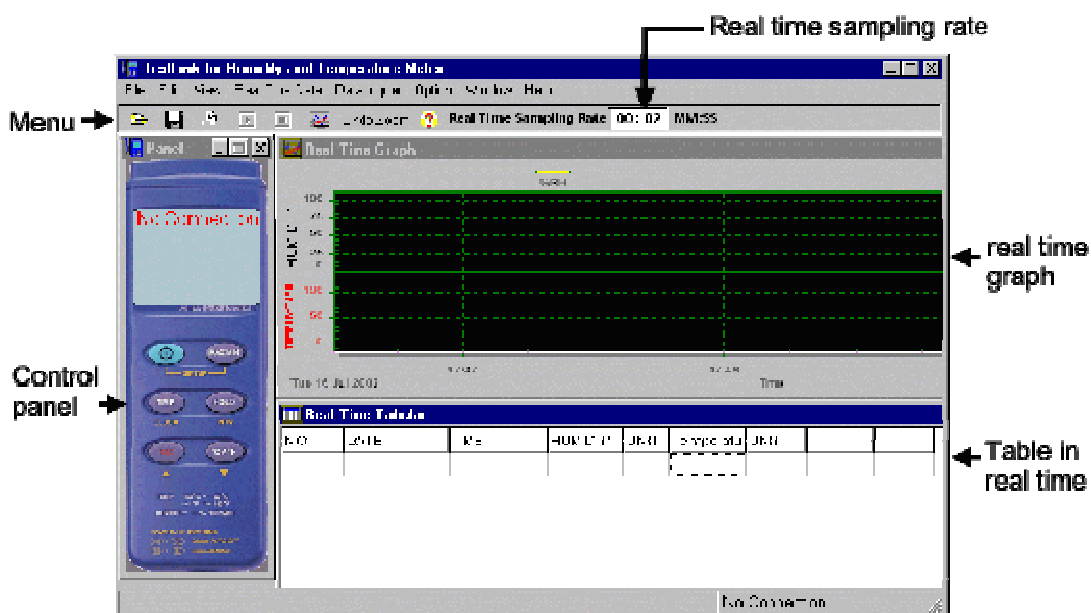
The PCE-313 A hydrometer comes with a sintered hood that can be used in extremely humid conditions. This prevents significant oscillations that might normally occur while taking measurements in such extreme conditions. This hood can be removed when the device needs to be cleaned, tested or recalibrated. The image to the right shows the hydrometer with the optional sintered hood.



There is an optional piece of calibration equipment available for the PCE-313 A hydrometer. Humidity sensors become less accurate over time, and this is true with this model. To ensure that values are always accurate, the hydrometer can be recalibrated using the calibration standards. These humidity standards have a value of 33% and 75% of relative humidity. This calibration can be done by people with limited experience using a hydrometer.

- LCD simultaneously shows temperature and humidity readings
- Auto-diagnostic software
- Error warning in case of faulty measurements
- Programmable high / low alarms for temperature limits, 2 for humidity
- Data Hold
- Large LCD
- Auto shut-off (can be deactivated)
- Memory for minimum and maximum values
- Software with RS-232 cable

Software



The software is compatible with Windows 95®, 98, 2000, XP Professional or NT

Technical specifications

Ranges	0 to 100% r.h. -20 to 60°C
Resolution	0.1% r.h. 0.1°C
Accuracy	±2.5% r.h. ±0.7°C
Memory capacity	16,000 readings
Operating conditions	0 to 40°C; <80% r.h.
Sensor	190mm x 13mm diameter
Battery	9V battery
Dimensions	186 x 64 x 30mm
Weight	320g

Contents

PCE-313 A hydrometer, combined temperature / humidity sensor with 1.2m spiral cable, Windows compatible software, RS-232 interface, carrying case, battery and user's manual