



HR33T

The standard in water potential measurement, Wescor's Dew Point Microvoltmeter, model HR-33T, can determine water potential using both dew point and wet bulb methods. It contains sophisticated sensing and control circuitry that automatically maintains the temperature of the thermocouple junction at the dew point temperature when operating in the dew point mode. The HR-33T can be used in both a laboratory and a field environment. When coupled with our Virtual Strip Chart Recorder (part AC-050) the HR-33T is ideal for teaching students about water potential determination using psychrometric principles

FEATURES

- Functions in either hygrometric (automatic dew point depression) or psychrometric (wet bulb depression) mode
- Low noise, low drift, chopper-stabilized microvoltmeter
- Integral precision panel meter with mirrored scale
- Available with alkaline battery (HR-33T) or rechargeable nickel cadmium battery (HR-33T-R)
- Recorder output
- Convenient sensor connection
- Rugged formed aluminum carrying case
- Optional power supply modules available:
 - Model 5106: 115 VAC 50 to 60 Hz
 - Model 5109: 220/240 VAC 50 to 60 Hz
 - Model 5112: Nickel cadmium rechargeable (specify 115 VAC or 220/240 VAC)

SPECIFICATIONS

- Ranges: 10, 30, 100, and 300 microvolts full scale
- Accuracy:
 - $\pm 1\%$ of full scale (recorder output)
 - $\pm 2\%$ of full scale (panel meter)
- Zero Drift: Less than 0.5 μV per 24 hours, less than 0.1 μV per $^{\circ}\text{C}$
- Noise: 0.1 microvolts peak to peak
- Input Impedance: 1 Megohm
- Maximum Source Impedance: 100 ohm (higher impedances will degrade accuracy)
- Rise Time: 2 seconds
- Zero Suppression: ± 75 microvolts
- Reference Junction: Copper-constantan ($\pm 0.5^{\circ}\text{C}$ from 0°C to 40°C)
- Recorder Output: 10 volts full scale (10 mA)