



## METER



# WP4C

Soil Water Potential Lab Instrument

## THE POTENTIAL FOR ERROR WHEN MEASURING WATER POTENTIAL

Measuring soil water potential is never easy. Traditional methods such as pressure plates or filter paper have always been problematic. Not only are they extremely time consuming, but both methods have issues with accuracy. That's why we developed the WP4C.

### SIMPLY ACCURATE. SIMPLY FAST. SIMPLE TO USE.

As world experts in water potential and soil suction, it wasn't enough to engineer an instrument that delivered consistent accuracy. We also designed it to be easy to use and take only minutes to register measurements, even in dry soils. The WP4C is a complex instrument due to its versatility, but extremely easy to use with sample sizes up to 7 ml. Simply fill half of the cup with soil, leaves or seeds, and then equilibrate the sample.

## FEATURES

- Precise mode
- Chilled mirror dew point technique
- Fast equilibration
- Unparalleled accuracy in the -0.1 MPa to -300 MPa range
- Durable and easy to clean
- Easy to calibrate with saturated salt solutions
- Conforms to ASTM D6836
- Use with HYPROP to create a full soil moisture release curve

## SPECS

Water Potential	<b>Range:</b> 0 – -300 MPa <b>Resolution:</b> NA <b>Accuracy:</b> ±0.05 MPa from 0 to -5 MPa 1% from -5 to -300 MPa <b>NOTE:</b> All vapor pressure instruments (including the WP4C) are limited by accuracy in the wet end of the water potential range. The range of 0 to -5 MPa has an accuracy of ±0.05 MPa. For example, a measurement of -0.1 MPa has an accuracy of ±50% of the measurement and a measurement of -1 MPa has an accuracy of ±5%. The WP4C will not measure water potential accurately near field capacity (-0.033 MPa).
Temperature	<b>Range:</b> 15.00 – 40.00 °C <b>Resolution:</b> 0.10 °C <b>Accuracy:</b> ±0.20 °C
Read Time	<b>Soil Sample:</b> ~10–15 min (precise mode) <5 min (fast mode) <b>Plant Sample:</b> ~20 min <b>NOTE:</b> WP4C will display updated measurements approximately every 5 min until stopped
Case Dimensions	<b>Length:</b> 24.1 cm (9.5 in) <b>Width:</b> 22.9 cm (9.0 in) <b>Height:</b> 8.9 cm (3.5 in)
Case Material	Powder painted aluminum
Universal Power	110.0000 – 220.0000 V AC 50/60 Hz
Sensor Types	Chilled-mirror dew point sensor Infrared temperature sensor
Cable Type	Standard RS-232 to USB cable (included)
Display	20 x 2 alphanumeric LCD with backlighting
Sample Cup Capacity	15 mL (0.5 oz) full 7 mL (0.25 oz) recommended
Operating Temperature Range	<b>Minimum:</b> 5.00 °C <b>Typical:</b> NA <b>Maximum:</b> 40.00 °C
Weight	3.2 kg (7.1 lb)
Data Communications	RS-232A serial 8-data bit ASCII code 9,600 baud, no parity 1 stop bit
Compliance	EM ISO/IEC 17050:2010 (CE Mark) Compatible standard: ASTM D6836-07 <a href="#">Prop 65 warning</a>
GSA	<a href="#">View GSA details</a>

### USA

2365 NE Hopkins Court, Pullman WA 99163

T 509.332.5984 F 509.332.5158

E [sales.environment@metergroup.com](mailto:sales.environment@metergroup.com) W [metergroup.com](http://metergroup.com)

### Europe

Mettlacher Straße 8, 81379 München

T +49 89 1266520

E [info.europe@metergroup.com](mailto:info.europe@metergroup.com) W [metergroup.com](http://metergroup.com)