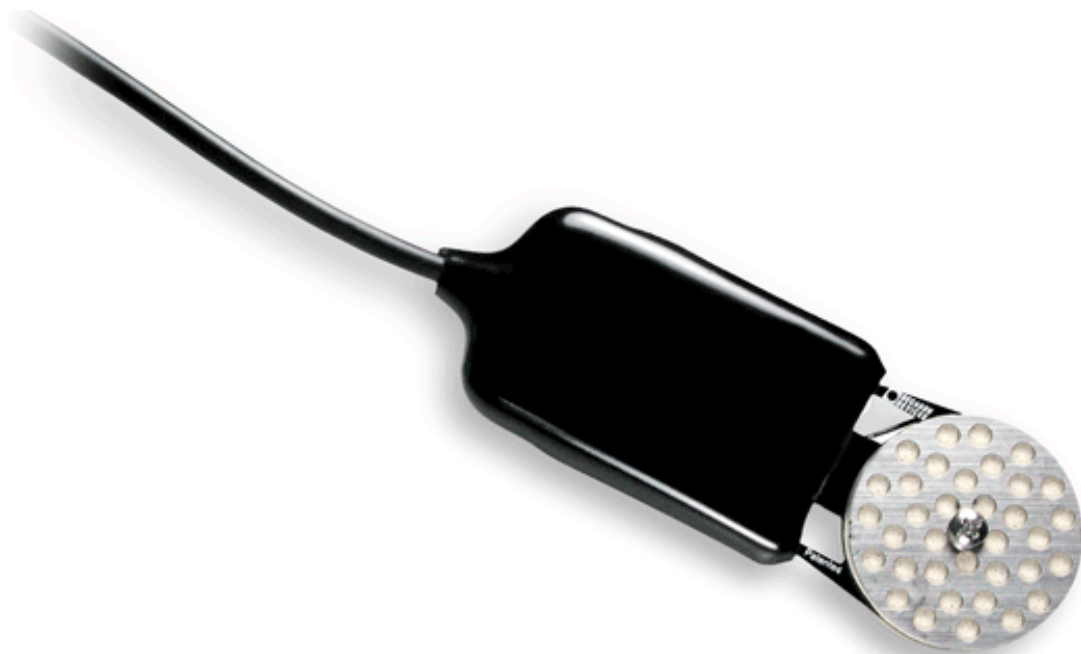


MPS-2 Soil Water Potential Sensor

The MPS-2 measures a wide range of soil water potentials (-10 to -500 kPa (pF 2.01 to pF 3.71) without user maintenance and factory calibration.

Unlike tensiometers, which need a skilled operator, this dielectric water potential sensor needs no care or feeding. Instead, it can simply be packed into a hole, plugged into a data logger, and left to log water potential data. The MPS-2 extended range makes this sensor ideal for measuring the water potential in natural systems or other drier systems where cavitation of tensiometers is a concern. The added temperature measurements can be used to determine approximate soil water potential in partially frozen soils.

Aside from the tensiometer, the **MPS-2** is the only calibrated water potential sensor on the market.



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MPS-2 Specifications

ACCURACY:	Soil Water Potential: $\pm 25\%$ of reading from -10 kPa to -100 kPa, Soil Temperature: $\pm 1^{\circ}\text{C}$
RESOLUTION:	Soil Water Potential: 0.1 kPa Soil Temperature: 0.1°C
RANGE:	Soil Water Potential: -10 to -500 kPa (pF 2.01 to pF 3.71) Soil Temperature: -40°C to 50°C
MEASUREMENT SPEED:	150 ms (milliseconds)
EQUILIBRATION TIME:	10 min to 1 hr depending on soil water potential
SENSOR TYPE:	Frequency domain with calibrated ceramic discs, thermistor
OUTPUT:	RS232 (TTL) with 3.6 volt levels or SDI-12 communication protocol
OPERATING ENVIRONMENT	- 40°C to 50°C
POWER:	3.6 - 15 VDC, 0.03 mA quiescent, 10 mA max during 150 ms measurement
CABLE LENGTH:	5 meters, custom cable lengths available
CABLE CONNECTOR TYPES	3.5 mm "stereo" plug or stripped and tinned lead wires (3)
SENSOR DIMENSIONS:	9.6 cm (l) x 3.5 cm (w) x 1.5 cm (d)
DATA LOGGER COMPATIBILITY:	Em50, Em50R, Em50G, ProCheck
Other:	Any data acquisition system capable of 3.6 - 15 V excitation and serial or SDI-12 communication
WARRANTY:	One year, parts and labor



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