# Four Point Probe 510

## Ceramic Plate Temperature Control Unit Option



### ROBUST Measurements

With 16 bit measurement resolution and high sampling speed the system provides a high-end stable measurements.

### Sample Protection

You can either set limits for your samples or let the system automatically sets the best current range for you. Sensitive measurements can be done easily not only protecting the sample but also lets you to see the highest resolution as possible.

### Controlled Environment

The Temperature Control Unit provides -5 °C to + 80°C controlled environment with the help of ceramic plate and the PID controller the measurements done with ±0.1 °C sensitivity.

### ALL-IN-ONE SOLUTION

Temperature Controlled Four Point Probe System is the only device in the field which combines the probe, the controller and the temperature control in a one portable device. It allows measuring a wide range of materials and sample sizes. It comprises a hard-ceramic base with 4 cm x 4 cm. The four Platinum pins allows maximum efficiency ensuring no contamination and easy cleaning probe structure.

### FAST, STABLE

The vertical slide carries the probe-head, with stable screw mechanism. The probe arm can be easily positioned on the vertical shaft to various heights to allow probing onto either flat materials or large or thick materials.

Microcontroller controlled system and high-end measurement hardware allows the fast, stable, reliable and easy measurements.

The internal calculations allow users to directly see the measurements in **Siemens/cm** with selected option **Ω/□, Ω.cm or Ω.**

### TEMPERATURE CONTROL

With continuously displayed and easily arranged temperature-controlled system allows to control the sample temperature from -5 °C to + 80°C. It also allows further limits when the instrument works in a controlled ambient temperature.

## *Technical Specifications*

- Up / Down moving probe mechanism to allow different sized sample placement on the ceramic plate.
- PTFE Probe Head and 4 point probe pins made by 99.9% Platinum. (Spacing btw. Probes: 1 mm / Probe dia= 0.5mm)
- -5 °C to + 80°C microcontroller controlled temperature control unit (PID controller with ±0.1 °C sensitivity) with 4cm x 4cm ceramic plate and digital display.
- Fully Microcontroller Controlled Measurement System with average result option. (up to 99 samples).
- 16 bit sampling resolution by high end application based Analog to Digital Converters
- Sheet Resistance (Ω/□), Bulk Resistivity (Ω.cm), Standard Resistance (Ω) with both resistance and siemens/cm ( values.
- Software allows user to enter the values for; Sample thickness(d), correction factor(k) and those values is considered in calculations for ( measurements to be displayed.
- Current Range 20 nA to 10 mA
- Resistivity Range 0.1 Ω – 200 MΩ
- LCD displays simultaneously the results and mode selection with integrated keypad that allows users to enter the desired values for experiment results.

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