SUZHOU TONGCHUANG ELECTRONICS CO.,LTD
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M-2 Handhold four point probe tester

Overview

M2 **Handhold four point probe tester** is a comprehensive multi-purpose measuring device, which used the four-probe measurement principles. Which can measure resisitivity and sheet resistance of the flake, massive semiconductor material in radial and axial. After put on a special four point probe test fixture, M2 also can measure the low and medium resistance of the metallic conductor.

M2 is componented by main equipment and test probe (optional testboard). The test results can be displayed directly. The main equipment is componented by Numerical control constant current source, high-resolution ADC, embedded microcontroller system. Can be conversion range automatically . Test probes are made by high wear-resistant tungsten carbide, Which kind of probe positioning accuracy, wavering smaller, long life.

M2 applies to the semiconductor material, semiconductor device factory, research institutes, colleges and universities on the resistance properties of semiconductor materials testing. Especially for applications that require fast measurements of low resistivity of the occasion.

Working atmosphere conditions of this instrument is shown as following:
Temperature: 25°C±2°C
Relative humidity: 60% ~ 70%
There is no strong electric field interference in the working room of this instrument, which is far away from the high frequency equipment.

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Technical parameters

1) measuring range
Resistivity: 10^{-2} ~ $10^{2}\Omega$-cm
Sheet resistance: 10^{-1} ~ $10^{3}\Omega/\square$
Resistance: 10^{-3} ~ 9999Ω

2) Observable semiconducting material size
Diameter： 15mm-130mm
Length(or hight) :≤400mm

3) Measuring method
Axial, the cross section may

4) digital voltmeter
(1) measuring range: 2V
(2) deviation: reading ±0.1%FSB±2LSB
(3) Maximum resolution: 10μA
(4) Accuracy 18ADC (5 1/2 digital display)
(5) Display: 4-digit display, automatic decimal point display

5). Numerical control constant current source
(1) Current output :DC current 2μA~ 2mA, 2μA continuously adjustable. Automatically adjusted.by system
(2) Error: ± 0.1% FSB ± 0.5LSB

6) Four point test probe head:
(1) probe space: 1mm
(2) probe machinery vacillation rate: ±1.0%
(3) probe material: High-speed needle diameter 0.5mm

7) power supply:
DC 4.5V ~8V; Power< 1W
Power adapter: input: 220V±10% 50Hz
Output: DC5V ± 10%

No Power can also be used, Lithium batteries can be installed！

8. Dimensions: 170mm (length) X 130mm (width) X50mm(hight)