



High Resistance Meter

- 1 MΩ to 100 TΩ
- Direct or Substitution Measurements
- Automatic and Manual Operation
- No Temperature Coefficient
- Multiple Modes of Operation
- Volume and Surface Resistivity
- Variable 1V to 1000V DC
- Auto Ranging/Voltage selection
- Upgradeable to Dual Source capability
- 6.5 digits of resolution

MODEL 6650AF



Model 6650AF High Resistance Meter

After Years of development of high resistance bridge measurement systems and resistance standards, Measurements International (MI) is pleased to announce the launch of the 6650AF High Resistance Meter.

The 6650AF offers users flexible operation in a simple, easy to use “meter like” package.

The model 6650AF High Resistance Meter is designed for measuring High resistances in the range of 1 MΩ to 100 TΩ. The simplified the construction and operation offers a more user-friendly approach to high resistance measurements. The 6650AF measurement technique has numerous advantages over other single input devices such as the typical Teraohmmeter.

The 6650AF is enabled with numerous measurement functions that allow users to tailor their measurements for their own particular needs. Utilizing Flexible architecture, the model 6650AF can be upgraded to a Dual Source High Resistance Bridge at any time.

- **Direct Measurement Mode** – In this mode, the 6650AF offers users the ability to quickly establish nominal values, measure Insulation resistance, Volume and Surface resistivity. This mode offers the same functionality that is utilized on a less accurate single input device such as the teraohmmeter. This mode is also useful for determining resistor time constants, as well as voltage and temperature coefficients.
- **Resistor Substitution Measurements** – In this mode, a standard resistor is measured by the 6650AF and its measurement and calibrated value are stored and used in memory to calculate the resistance of the UUT.

Measurements International is the only manufacturer of High Resistance Measurement systems whose measurement capabilities support its product specifications!!

Voltage Range: The 1000V DC sources in the 6650AF offer variable voltage output of 1 to 1000V. The voltage setting is indicated on the front panel display.

Operation: The front panel offers users simple and intuitive measurement options. Features include resistor protection, settle time, number of measurements, statistics, voltage and temperature coefficients and graphing.

Software(Optional): The 6650AF software allows the user to define measurement and test parameters utilizing the same proven software used on the MI 6010 and 6000 series of DC Bridges that customers have become accustomed to. Programs Menu allows users to create and combine several program tasks. Selectable parameters include measurement time delays (wait times), settle time, number of measurement, test voltage, number of runs, standards used, reversal rate, current threshold, and standard resistor uncertainty. Measurement parameters including statistics data are displayed during measurement.





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Specifications: Rev 0

Resistance Range Ω	1 Year Measurement Uncertainty \pm % of reading + digit, where $k=2$	Applied Voltage Range V	Short Term Stability \pm ppm of reading at $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ (3 hour)
1 M	0.125 +1	1 to 100	100
10 M	0.07 +1	1 to 100	50
100 M	0.1 +1	10 to 1000	50
1 G	0.1 +1	10 to 1000	50
10 G	0.1 +1	10 to 1000	50
100 G	0.35 +1	10 to 1000	50
1 T	0.35 +1	10 to 1000	100
10 T	1.025 +1	100 to 1000	500
100 T	1.15 +1	100 to 1000	0.1%

Dimensions (W x D x H):
483 x 565 x 178 (mm)

Weight:
12 kg

Shipping Weight:
17 kg

Main Power:
100 - 240V – 50/60Hz
100 VA Max.

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