



6652A HIGH RESISTANCE METER



Featuring

- ▶ 1 MΩ to 100 TΩ
- ▶ Direct or Substitution Measurements
- ▶ Automatic and Manual Operation
- ▶ No Temperature Coefficient
- ▶ Multiple Modes of Operation
- ▶ Variable 1 V to 1000 V DC
- ▶ 6.5 Digits of Resolution
- ▶ Compatible with Model 4610 and 4620 High Resistance Standards

Overview

The 6652A High Resistance Meter is designed to measure High Resistance in the range of 1 MΩ to 100 TΩ. The simplified construction and operation offer a more user-friendly approach to high resistance measurements, and to improve measurement speed over other single-input devices.

Direct Measurement Mode: In this mode the 6652A offers users the ability to quickly establish nominal value of resistances, measure insulation resistance and volume, and surface resistivity. This mode is also useful for determining resistors time constant, as well as voltage and temperature coefficients.

Resistor Substitution Measurements: (Only available for 6652A Premium) In this mode, high accuracy is obtained. The measurement of a standard of a known resistor is automatically compared to a resistor under test. With this method, any hardware drift and instability are taken into account, consequently are corrected for the unknown resistance measurement.

Voltage Range: The voltage range of the 6652A Basic is variable from 1 V to 1000 V. 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, voltage setting, settle time of the resistor, number of measurements, the number of statistics and graphing.



Model 4620A

The model 4610A (10) and 4620A (20) were developed to allow the 6652A to automate the process of measuring multiple high-value resistors such as the model 9331G.



Model 9331G



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Specifications:

Measurement Range (Ohms)	Applied Voltage	Ratio Uncertainty (1:1 and 10:1 Ratio)	Direct Measurement (12 Month)	Temperature Coefficient (ppm/°C)
100k to 1M	1 to 100V	15	100	<10
1M to 10M	1 to 100V	15	100	<10
10M to 100M	10V to 1000V	15	100	<10
100M to 1G	10V to 1000V	15	100	<10
1G to 10G	10V to 1000V	20	300	<10
10G to 100G	10V to 1000V	20	500	<10
100G to 1T	10V to 1000V	50	800	<10
1T to 10T	100V to 1000V	150	2000	<10
10T to 100T	100V to 1000V	450	3500	<10

1. Uncertainty Confidence Level: 99%
2. Uncertainties relative to Calibration standards used and are independent of reference resistor or UUT uncertainty contributors.
3. Does not include settle time, dielectric or voltage coefficient etc. for the resistor being measured.

	Accuracy ($\times 10^{-6}$)	Stability ³ ($\times 10^{-6}$)	Resolution
Voltage Source	1000	30	6 Digit
Voltage Measurement	50	30	6 Digit
Current Range	10 μ A to 10 pA		
Uncertainty (1 Year)	± 0.015 % of rdg (at 10 μ A) to ± 0.35 % of rdg (10 pA)		

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

Weight:
12 kg

Shipping Weight:
17 kg

Main Power:
100 – 240 V, 50/60 Hz, 100 VA max.

Interface:
IEEE-488

Accessories:
Cables: N to N, N to BPO, N to Alligator, N to Other
Air Bath: 9300 or 9300A

Standard Resistors: 9331 series (1 M Ω and 10 M Ω)
and 9331G Series (100 M Ω to 100 T Ω)

Corporate Headquarters
Measurements International
PO Box 2359, 118 Commerce Drive
Prescott, Ontario, Canada K0E 1T0

Phone: 613-925-5934
Fax: 613-925-1195
Email: sales@mintl.com
Toll Free: 1-800-324-4988

Worldwide Offices
MI-USA
Phone: 407-706-0328
Email: sales@mintl.com

MI-China
Phone: +(86) 10-64459890
Email: sales@mintl.com

MI-Europe
Phone: +(420) 731-440-663
Email: sales@mintl.com

MI-Japan
Phone: +(81) 72 39 64 660
Email: kaz@mijpn.com

MI-India
Phone: +(91) 98 10 134 932
Email: sales@MILLP.co.in

