

Keithley 6517B Electrometer/ High Resistance Meter vs. Keysight B2985A Electrometer/High Resistance Meter

The 6517B's Advantages and the Unique Differentiation of our Sensitive Products

More Measurement Performance

- ✍ Resistance measurement up to $10^{18}\Omega$
- ✍ High resistance measurements using the alternating polarity method eliminates the effects of inherent background currents in materials that can cause measurement errors. Keysight does not use this technique.
- ✍ Measuring voltages from high impedance sources above 20V. The 6517B can measure up to 200V while Keysight can only measure up to 20V.
- ✍ Ability to test a number of samples with one test set-up using 10-channel plug-in switch cards
- ✍ Built-in test sequences which helps simplify making these measurements:

Credibility - Keithley's Long History of Expertise in Sensitive Measurements

- ✍ The 6517B is cited in thousands of research papers (source: Google Scholar, search on 6517)
- ✍ We wrote the book on sensitive measurements. Refer the customer to our website where the customer can get a copy of the 7th edition of the Low Level Measurements Handbook.

The Best Customer Support for Sensitive Measurements



- ✍ The most experienced Applications Engineers
- ✍ No charge, easy access to application engineers via phone, chat, e-mail, or the applications forum

The Most Extensive Line of Sensitive Instruments

If the customer would like to investigate other options, you have a number of alternatives:

- ✍ Sensitive, high performance DMMs
- ✍ Other sensitive measurement products: Picoammeters, Current Sources, and Nanovoltmeters.
- ✍ Sensitive Source Measure Instruments

Note: If a customer wants even more current measurement sensitivity, present the 6430 Sub-Femtoamp Remote SourceMeter[®] SMU Instrument (The 6430 is a higher-priced sale). No one offers current sensitivity like the Model 6430.

	Keysight B2985A Electrometer/High Resistance Meter	Keithley 6517B Electrometer/High Resistance Meter
		
Display Resolution	6½ digits	6½ digits ¹ in high accuracy mode
Current Measurement Range	0.01fA (10aA) - 20 mA*	0.01fA (10aA) - 20 mA
Voltage Measurement Range	1µV to 20V	1µV to 200V
Voltage Source	±1000V	± 1000V
Max Ohms Measurement	$10 \times 10^{15}\Omega$	$1,000 \times 10^{15}\Omega$
Charge Measurement	1fC – 2µC	1fC – 2µC
Alternating Polarity Resistance Measurement	No	Yes
Internal Test Sequences	None	8, device characterization, resistivity, and sweep tests
Display	Graphical with numerical, plotting and histogram display	Numerical only
Memory	100,000 locations	50,000 locations
PC Interface	USB, LAN LXI, GPIB	RS232, GPIB
Battery Option	Yes	No
Triax Cable	Semiconductor layer below inner shield	Graphite-impregnated inner shield
Multi-Channel Measurements	Not Available	Optional plug-in 10-Channel Scanner cards

* This is the range of measurement that Keysight publicizes, but the display resolution is 0.001fA (1aA).

Summary of the of the Tektronix Competitiv Sheet by Robert Green, Sensitive Line Product Manager, robert.green@keithley.com