

614 Electrometer

For most new applications, the Model 6514 (page A-73) offers better performance than the 614, plus IEEE-488 and RS-232 interfaces at a similar cost.

Sensitive Performer

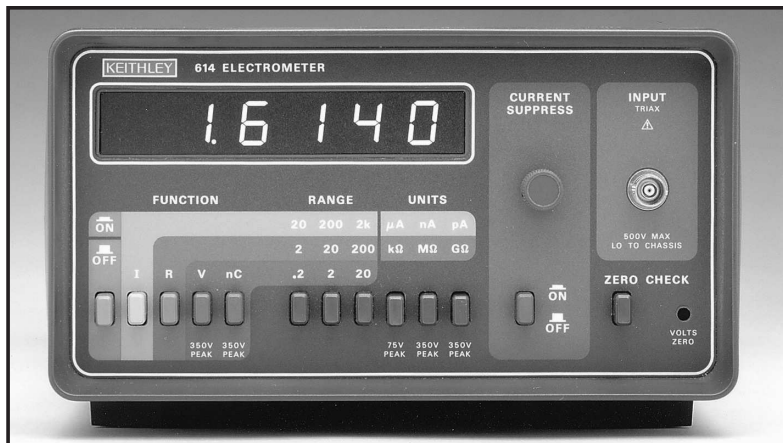
The 614 performs four functions: current, resistance, voltage, and charge measurements. It is capable of detecting currents as low as 10^{-14} A and resistances up to $2 \times 10^{11}\Omega$. It provides more than $5 \times 10^{13}\Omega$ input impedance on the voltage ranges, and can detect charge over a range of 10^{-14} to 2×10^{-8} C. It is appropriate for a wide range of applications in component and circuit testing as well as in research and student laboratories.

Battery/Line

For isolation from AC line interference, the 614 features a built-in, rechargeable lead-acid battery pack. The pack provides more than 10 hours of off-line operation, automatically recharges when the power line is plugged in, and automatically cuts in should line power be interrupted.

Flexible and Convenient

The 614 rear panel includes two analog outputs: a 2V output for recorders and a preamp output for use as a driven guard with the 6167 guarded input adapter. The current suppress feature allows background currents to be zeroed out at the touch of a button. Durable construction and a full range of capabilities assure a long and cost-effective life cycle.



ORDERING INFORMATION

614 Electrometer with Model 6011 Triax to Alligator Clips Input Cable

This product is available with an **Extended Warranty**. See section C for complete ordering information.

- 10^{-14} A sensitivity
- Current suppression
- $5 \times 10^{13}\Omega$ input impedance
- 4½-digit LED display
- Battery/line power built-in

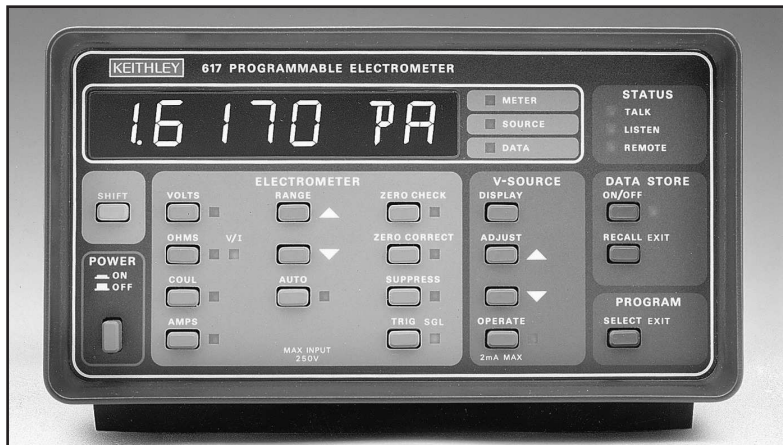
617, 617-HIQ Electrometer/Source

For most new applications, our Model 6517A (page A-77) offers better performance than the 617 at a similar cost. The new Model 6514 offers similar functionality and includes the high charge measurement capabilities of the 617-HIQ.

The Model 617 performs four functions: current, resistance, voltage, and charge measurements. It is capable of detecting currents from 1×10^{-16} to 2×10^{-2} A and resistances up to $5 \times 10^{16}\Omega$. It provides more than $2 \times 10^{14}\Omega$ input impedance on voltage measurements from 10μ V to 200V and can detect charge over a range of 10^{-14} to 2×10^{-8} C. In addition to standard resistance functions using constant current, the 617's variable voltage source can supply from 50mV to 102V, which can be applied to a resistance and the resulting current or resistance displayed.

The 617's built-in IEEE-488 interface makes all controls programmable. The built-in V-Ω GUARD switch lets you drive the inner shield of the triaxial input cable at guard voltage, minimizing leakage current and time constants. 100-point data storage is also built in, with Min/Max readings available from front panel or bus.

For measurements of charge as high as 20μ C, the 617-HIQ version offers three higher charge ranges. These higher ranges have proven useful on Faraday cup measurements and other static charge applications including photocopy research and development.



ORDERING INFORMATION

617 Electrometer/Source with Model 6011 Input Leads and Model 6172 Triax Adapter

617-HIQ Electrometer/Source with extended charge measurement range, Model 6011 Input Leads and Model 6172 Triax Adapter

This product is available with an **Extended Warranty**. See section C for complete ordering information.

- Built-in V source
- Full autoranging
- Built-in IEEE-488 interface
- Built-in V-Ω Guard
- Resistance measurement from 0.1Ω to $>10^{16}\Omega$