Application Brief

**N1414A High Resistance Measurement Universal Adapter Simplifies High Resistance Measurement Cabling**

Accessory for the Keysight B2985A/87A Electrometer/High Resistance Meter

If you frequently need to switch between floating and grounded high resistance measurements, repeatedly changing the manual cable connections can be annoying and time-consuming. The Keysight N1414A High Resistance Measurement Universal Adapter allows you to switch between floating mode and grounded mode with a single button push, eliminating the need to manually change connections. In addition, the N1414A allows you to monitor the sourced voltage using the voltmeter function of the B2985A/87A.

**Problem:** Need to change connections between floating and grounded modes.

**Solution:** The N1414A adapter eliminates the need to manually change connections.

![Diagram of N1414A Adapter](image_url)

**Up position** for Floating device measurements  
**Down position** for Grounded device measurements
Schematic of the B2985A/87A when used with the N1414A adapter:
The built-in switching capability of the N1414A enables you to switch between floating and grounded device measurements with a single button push. In addition, the N1414A adapter connects the device to the B2985A/87A’s voltmeter to allow you to monitor the sourced voltage.

Note: The N1414A’s internal circuitry attenuates the actual voltage by a factor of one hundred.

Keysight B2980A Series Femto/Picoammeters & Electrometers/High Resistance Meters

The world’s only graphical Picoammeter/Electrometer that can confidently measure down to 0.01 fA and up to 10 PΩ
- Best-in-class 2 pA range and 0.01 fA resolution provide unprecedented performance
- Integrated 1000 V source supports resistance measurements up to 10 PΩ
- Battery model eliminates AC power line noise
- Graphical time domain and histogram views facilitate quick debug and analysis

Refer to the Keysight.com website for product details, technical overviews and other information.
B2980A product page: www.keysight.com/find/b2980a
Sensitive measurement knowledge portal: www.keysight.com/find/sensitivemeasurement