

# Keysight B2980B Series Femto/Picoammeter and Electrometer/High Resistance Meter

The world's only graphical Picoammeter/Electrometer that can confidently measure down to 0.01 fA and up to 10 PΩ

## Previously Intractable Measurement Enabled

- Best-in-class 2 pA to 20 mA ranges and internal 1,000 V source ensure accurate 0.01 fA and 10 PΩ measurement capabilities

## Graphical Viewing, Debug, and Characterization

- Time domain view enables capture of transient signal effects and selection of desired measurement data
- Real time histogram view provides quick statistical analysis of measurement data

## Great measurement confidence

- Battery operation eliminates AC power noise from measurements
- Test setup integrity checking function and dedicated accessories ensure maximum accuracy

**+0.000087 pA**

0.01 fA (0.00001 pA) effective resolution and 0.001 fA display resolution

Sample under test

Noise data

The setup integrity checker measures and records the measurement setup's noise level

Battery operated models (B2985B & B2987B)

Time domain view (roll view)

Histogram view

## Key specifications

Model	Femto/Picoammeter		Electrometer/ High Resistance Meter	
	B2981B	B2983B	B2985B	B2987B
Measurement resolution	6½ digits	6½ digits	6½ digits	6½ digits
Current measure	0.01 fA to 20 mA	0.01 fA to 20 mA	0.01 fA to 20 mA	0.01 fA to 20 mA
Minimum range	2 pA	2 pA	2 pA	2 pA
Resistance measure			Up to 10 PΩ	Up to 10 PΩ
Voltage measure			1 μV to 20 V	1 μV to 20 V
Input resistance			> 200 TΩ	> 200 TΩ
Charge measure			1 fC to 2 μC	1 fC to 2 μC
Temperature measurement			Yes	Yes
Humidity measurement			Yes	Yes
Voltage source			Up to ± 1,000 V	Up to ± 1,000 V
Minimum resolution			700 μV	700 μV
Reading rate	20,000 rdg/s	20,000 rdg/s	20,000 rdg/s	20,000 rdg/s
Battery operation		Yes		Yes

## B2900 precision instrument family

The B2980B series is a member of the B2900 Precision Instrument Family, which includes several different source and measurement solutions. Further information is available at [www.keysight.com/find/B2900](http://www.keysight.com/find/B2900)



B2900B Series of Source Measure Units (SMUs) for cost-effective source/measurement capabilities



B2960B Series of Low Noise Power Source for ultra-low noise and more sourcing capabilities

## Options

Model number	Options	Description
B2981/83/85/87B	1A7	Calibration + Uncertainties + Guardbanding (Not Accredited)
	A6J	ANSI Z540-1-1994 Calibration
	UK6	Commercial calibration certificate with test data

## Key accessories

Model number	Description
N1412A/B/C	Triaxial cable, 500 V, 1.5 m/3 m/6 m
N1413A	High resistance meter fixture adapter
N1414A	High resistance measurement universal adapter
N1415A	Triaxial to alligator cable, 200 V, 1.5 m
N1418A	Lithium-ion battery pack for B2983/B2987
N1424A/B/C	Resistivity cell for N1413 with B2980 Series
N1428A	Component test fixture for N1413 with B2980 Series

## Productivity tools

Model number	Description
N1410A	Starter kit for B2985/B2987
N1420A	Setup integrity checker for B2980 series, fixed perpetual license

Refer to Keysight.com website for product details, technical overviews and other information. Please visit at [www.keysight.com/find/B2980](http://www.keysight.com/find/B2980)

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