

# Keysight B2980A Series Femto/Picoammeter & 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

## Key features and benefits

- 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
- Battery operation eliminates AC power noise from measurements
- 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
- 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

Battery operated models (B2985A and B2987A)

Time domain view (roll view)

Histogram view

Noise data

The setup integrity checker (N1420A) measures and records the measurement setup's noise level

Learn more at: [www.keysight.com](http://www.keysight.com)

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## Key specifications

Model	Femto/Picoammeter		Electrometer/High resistance meter	
	B2981A	B2983A	B2985A	B2987A
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			√	√
Humidity measurement			√	√
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		√		√

### B2900 precision instrument family

The B2980A 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/b2900a](http://www.keysight.com/find/b2900a)



B2900A Series of Source Measure Units (SMUs) for cost-effective source/measurement capabilities



B2960A Series of Low Noise Power Source for ultra low noise and more sourcing capabilities

Learn more at: [www.keysight.com](http://www.keysight.com)

## Options

Model number	Options	Description
B2981/83/85/87A	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
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

## Manuals

Model number	Description
N1403A-ABA	User Guide English for B2980 Series
N1403A-ABJ	User Guide Japanese for B2980 Series

Refer to Keysight.com website for product details, technical overviews and other information. Please visit [www.keysight.com/find/b2980a](http://www.keysight.com/find/b2980a)