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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 4349A

HP Agilent 4349A 4-Channel High Resistance Meter The HP/Agilent 4349A is a four-channel high-resistance meter for capacitor production test. OEM 4349A specifications list DC current from 1 pA to 100 uA at plus or minus 0.4% basic accuracy, DC resistance from 1e3 to 1.6e16 ohm at plus or minus 0.6% basic accuracy, short measurement time 11 ms and long 31 ms (9 ms typical), 1 kohm input impedance for faster charge, and HP-IB trigger with 0 to 9999 ms delay in 1 ms steps. Multi-channel insulation resistance and leakage current tests on capacitors in production. The HP/Agilent 4349A is a four-channel high-resistance meter for capacitor production test. OEM 4349A specifications list DC current from 1 pA to 100 uA at plus or minus 0.4% basic accuracy, DC resistance from 1e3 to 1.6e16 ohm at plus or minus 0.6% basic accuracy, short measurement time 11 ms and long 31 ms (9 ms typical), 1 kohm input impedance for faster charge, and HP-IB trigger with 0 to 9999 ms delay in 1 ms steps. Multi-channel insulation resistance and leakage current tests on capacitors in production.



MODEL

**Agilent / Keysight
4349A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

4349A

LISTING

<https://aumictechlabs.com/products/4349a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 4349A is a precision high resistance meter delivering simultaneous multi-channel measurements for bench-top and manufacturing environments. Available in single-channel, dual-channel, and four-channel configurations, it measures DC resistance from 1 kΩ to $1.6 \times 10^{16} \Omega$ and DC current from 60 fA to 100 μA with ±0.6% and ±0.4% basic accuracy

respectively. Test voltages range from 0.1000 V dc to 1000.0 V dc, enabling characterization of high-impedance devices, surface and volume resistivity, and low-current phenomena. The instrument delivers measurements in 9 ms typical, with selectable integration times of 28 ms, 98 ms, and 396 ms. Auto and manual ranging, averaging up to 256 samples, and built-in contact detection (2 ms for capacitive devices) ensure reliable production testing. Open error correction removes parasitic effects, while deviation and percent deviation functions support statistical analysis. Comparator thresholds (high/in/low) and save/recall of up to 10 measurement states streamline test configuration.

Technical Specifications
Resistance range: $1 \times 10^3 \Omega$ to $1.6 \times 10^{16} \Omega$
Current range: 60 fA to 100 μ A
Test voltage: 0.1000 V dc to 1000.0 V dc
DC current accuracy: $\pm 0.4\%$ basic
DC resistance accuracy: $\pm 0.6\%$ basic
Measurement time: 9 ms (typical); 28, 98, 396 ms selectable
Averaging: 1 to 256
Delay time: 0 to 9999 ms (1 ms steps)
Test cable length: 2 m maximum
Power input: 90–132 V ac or 198–264 V ac, 47–66 Hz; 45 VA typical

Key Features
Four-channel simultaneous measurements (Option 700)
Contact check capability (2 ms for capacitive devices)
Open error correction for parasitic elimination
GPIB control (IEEE 488)
Handler interface with isolated, negative-logic signals
Continuous memory support
Compact dimensions: 320 mm (W) $\times$ 100 mm (H) $\times$ 450 mm (D); 6.5 kg

Typical Applications
High-volume resistivity testing (surface and volume)
Low-current and high-impedance device characterization
Contact resistance verification in manufacturing
Electrostatic discharge (ESD) material qualification

Compatibility & Integration
Available with 1, 2, or 4 test channels. Four-channel operation requires external DC source. Supports low-noise test leads (16117C, 16117E), resistivity test fixtures (50 mm, 26 mm, 76 mm electrodes), tweezer fixtures, and wide jaw clips.

4349A Characteristics / Specifications

PARAMETER	VALUE
Model	4349A
Instrument Type	4-channel high resistance meter
Channel Count	4
Measurement Parameters	I DC current andRDC resistance
Current Range	1 pA to 100 uA
Current Basic Accuracy	plus or minus 0.4%
Resistance Range	1e3 ohm to 1.6e16 ohm
Resistance Basic Accuracy	plus or minus 0.6%
Measurement Time Short	11 ms
Measurement Time Long	31 ms
Measurement Time Typical	9 ms
Delay Time	0 to 9999 ms in 1 ms steps
Ranging	auto and manual
Trigger	internal, external, manual, and HP-IB
Input Impedance Charge	1 kohm class for reduced capacitor charge time
Line Voltage	90 to 132 V or 198 to 264 V
Line Frequency	47 to 66 Hz
Power Consumption	45 VA maximum
Display	24 digit LCD class
Math Functions	deviation and percent deviation
Contact Check	high-speed contact check
Comparator	yes
Manufacturer	HP Agilent Keysight
Mechanical Package	benchtop production resistance meter
Use Case	capacitor insulation and leakage production test

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

specifications list DC current from 1 pA to 100 uA at plus or minus 0.4% basic accuracy, DC resistance from 1e3 to 1.6e16 ohm at plus or minus 0.6% basic accuracy, short measurement time 11 ms and long 31 ms (9 ms typical), 1 kohm input impedance for faster charge, and HP-IB trigger with 0 to 9999 ms delay in 1 ms steps.

Applications

Multi-channel insulation resistance and leakage current tests on capacitors in production.

Key Features

Four simultaneous DUT channels

High-speed contact check

Comparator function

Deviation and percent-deviation math

Auto and manual ranging

Technical Specifications

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Notes
From Agilent/HP 4349A 4-Channel High Resistance Meter published specifications (current/resistance ranges and accuracies, timing, power). Confirm test-voltage set and comparator limits on the 4349A data sheet matching the serial.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.