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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 34401A Digital Multimeter, 6 Digit

HP Agilent 34401A 6.5 Digit Digital Multimeter The Agilent 34401A is a 6.5-digit bench/system DMM with 0.0015% basic 24-hour DCV accuracy, true-rms AC to 300 kHz bandwidth class, and up to 1000 readings/s direct to GPIB. OEM datasheet accuracy tables cover DCV, ACV, resistance, DCI, ACI, frequency/period, continuity, and diode, with SCPI plus 3478A and Fluke 8840 compatibility languages. Precision bench voltage/current/resistance measurements, automated system DMM throughput tests, frequency and period counting on AC signals, and continuity/diode troubleshooting. The Agilent 34401A is a 6.5-digit bench/system DMM with 0.0015% basic 24-hour DCV accuracy, true-rms AC to 300 kHz bandwidth class, and up to 1000 readings/s direct to GPIB. OEM datasheet accuracy tables cover DCV, ACV, resistance, DCI, ACI, frequency/period, continuity, and diode, with SCPI plus 3478A and Fluke 8840 compatibility languages. Precision bench voltage/current/resistance measurements, automated system DMM throughput tests, frequency and period counting on AC signals, and continuity/diode troubleshooting.



MODEL

**HP / Agilent
34401A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34401A

LISTING

<https://aumictechlabs.com/products/34401a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 34401A is a 6½ digit digital multimeter delivering DC voltage accuracy of 0.0015% (24-hour) and AC voltage accuracy of 0.06% (1-year). Built for both benchtop and automated test environments, it combines precision measurement with high-speed data acquisition - up to 1,000

readings per second directly to GPIB. Technical Specifications Measurement Functions DC Voltage: 100 mV to 1000 V AC Voltage: 100 mV to 750 V True RMS, 3 Hz to 300 kHz bandwidth DC Current: 100 μ A to 3 A AC Current: 100 μ A to 3 A True RMS, 3 Hz to 5 kHz bandwidth Resistance: 100 Ω to 100 M Ω (2-wire and 4-wire selectable) Frequency: 300 Hz to 1 MHz Period measurement with AC voltage input ranges Continuity testing with audible alarm Diode testing to 1.000 V dB and dBm measurements Accuracy (selected ranges) DC Voltage: 0.0015% of reading + 0.0004% of range (10 V range, 24-hour) AC Voltage: 0.06% of reading + 0.03% of range (750 V range, 1-year) Resistance (100 Ω range): 0.0030% of reading + 0.0030% of range DC Current (1 A range): 0.050% of reading + 0.006% of range AC Current (1 A range): 0.10% of reading + 0.04% of range Key Features Resolution: 6½ digits Reading rate: 1,000 readings/second to GPIB Internal memory: 512 readings Min/Max/Average statistical functions Null feature for offset and lead resistance removal Reading Hold and Limit Testing with TTL output Input Resistance: 10 M Ω standard (high impedance option >10 G Ω on selected ranges) Input Bias Current: <30 pA at 25°C AC input impedance: 1 M Ω parallel with 100 pF Normal Mode Rejection: 60 dB; Common Mode Rejection Ratio: 60 dB Measurement Technology DC voltage uses Continuously Integrating Multi-slope III A-D conversion. AC voltage employs AC-coupled True RMS measurement with up to 400 Vdc bias capability. Resistance employs selectable 4-wire or 2-wire techniques with current source referenced to LO input. Frequency and period employ reciprocal counting. Compatibility & Integration Standard GPIB and RS-232 interfaces enable integration into automated test systems. The instrument supports SCPI, Agilent 3478A, and Fluke 8840A/42A command languages for legacy and modern test software compatibility.

34401A Characteristics / Specifications

PARAMETER	VALUE
Resolution	6.5 digits
Basic 24 Hour DCV Accuracy	0.0015% of reading class (10 V range)
Basic 1 Year ACV Accuracy	0.06% class midband
AC Bandwidth	3 Hz to 300 kHz
Max Reading Rate GPIB	1000 readings/s
DCV Ranges	100 mV, 1 V, 10 V, 100 V, 1000 V
DCV 100 mV 1 Year Accuracy	0.0050% + 0.0035% of range
ACV Ranges	100 mV to 750 V
Resistance Ranges	100 ohm to 100 Mohm
DCI Ranges	10 mA, 100 mA, 1 A, 3 A
ACI Ranges	1 A and 3 A
Frequency Period Input	100 mV to 750 V, 3 Hz to 300 kHz class
A/D Linearity	0.0002% of reading + 0.0001% of range
Input Resistance Low Ranges	10 Mohm or selectable greater than 10,000 Mohm
Input Bias Current	less than 30 pA at 25 C
Input Protection DCV	1000 V all ranges
Reading Memory	512 readings
Power Consumption	25 VA peak (10 W average)
Operating Temperature Full Accuracy	0 C to 55 C
Weight	3.6 kg (8.0 lb)
Interfaces	GPIB and RS-232
Bandwidth	3 Hz to 300 kHz
Operating temperature	Full Accuracy: 0 C to 55 C

34401A Specifications

PARAMETER	VALUE
HP Agilent 34401A 6.5 Digit Digital Multimeter	Overview
Key Features	Null, dB/dBm, min/max/avg, and limit test with TTL pass/fail
Technical Specifications	Resolution: 6.5 digits

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Full Accuracy: 0 C to 55 C
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Operating Temperature Full Accuracy	0 C to 55 C
Weight	3.6 kg (8.0 lb)
Interfaces	GPIB and RS-232 Notes Accuracy rows from Agilent 34401A Multimeter data sheet (5968-0162EN). Accuracies are ±(% reading + % range) after warm-up at stated digits/filter; see sheet footnotes for crest factor and overrange rules.

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	
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PARAMETER	VALUE
Resolution	6.5 digits
Basic 24 Hour DCV Accuracy	0.0015% of reading class (10 V range)
Basic 1 Year ACV Accuracy	0.06% class midband
AC Bandwidth	3 Hz to 300 kHz
Max Reading Rate GPIB	1000 readings/s
DCV Ranges	100 mV, 1 V, 10 V, 100 V, 1000 V
DCV 10 V 1 Year Accuracy 23±5 C: 0.0035% + 0.0005% of range	
Specifications	
PARAMETER	VALUE
DCV 100 mV 1 Year Accuracy	0.0050% + 0.0035% of range
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Resistance Ranges	100 ohm to 100 Mohm
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after warm-up at stated digits/filter; see sheet footnotes for crest factor and overrange rules.

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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<https://aumictechlabs.com>

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.