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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 3400B

The HP 3400B is the follow-on true-RMS analog voltmeter to the 3400A, retaining 1 mV-to-300 V-class ranges and 10 Hz-to-10 MHz-class bandwidth with true-RMS response independent of waveform. OEM 3400B literature positions it as the production replacement for 3400A with the same RMS-voltmeter role. True-RMS audio through HF voltage in production and calibration labs that standardized on 3400B after 3400A. Instrument Type: True RMS analog voltmeter Frequency Range Class: 10 Hz to 10 MHz class True-RMS audio through HF voltage in production and calibration labs that standardized on 3400B after 3400A. Instrument Type: True RMS analog voltmeter Frequency Range Class: 10 Hz to 10 MHz class Waveform: RMS of arbitrary waveforms within crest-factor limits of the 3400B table



MODEL

**Agilent / Keysight
3400B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

3400B

LISTING

<https://aumictechlabs.com/products/3400b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 3400B is a true RMS analog voltmeter engineered for precision AC voltage and decibel measurements across audio and RF frequencies. It delivers accurate RMS readings on sinusoidal and non-sinusoidal waveforms, making it essential for broadband noise characterization, fast-rise pulse analysis, and high-frequency signal assessment. The instrument combines wide dynamic range with frequency-dependent accuracy specifications, enabling reliable measurements in demanding RF and audio test environments. Technical Specifications Measurement Ranges & Resolution Voltage: 1 mV to 300 V full scale across 12 ranges Decibel: -72

dBm to +52 dBm (0 dBm = 1 mW into 600 Ω) Frequency response: 10 Hz to 20 MHz Measurement Performance True RMS response for all waveforms, including non-sinusoidal signals Crest factor handling: up to 10:1 at full scale; up to 100:1 at 10% of full scale Frequency-dependent accuracy (within 20°C to 30°C): $\pm 5\%$ FS (10–50 Hz), $\pm 1\%$ (50 Hz–1 MHz), $\pm 2\%$ (1–2 MHz), $\pm 3\%$ (2–3 MHz), $\pm 5\%$ (3–10 MHz) Response time: < 5 seconds to final value for step function input Input Specifications Input impedance: 10 M Ω shunted by < 50 pF (1–300 mV ranges, AC-coupled); 10 M Ω shunted by < 20 pF (1–300 V ranges, AC-coupled) Maximum continuous input: 30 dB above full scale or 800 V_{peak}, whichever is less, per range Maximum DC input: 600 V_{dc} on all ranges; tolerates 500 V_{ac} peak at 1 kHz Output DC output: 0 to 1 V linear, proportional to meter deflection; drives auxiliary equipment or functions as RMS ac-to-dc converterKey Features AC-coupled input design minimizes DC offset sensitivity AC-coupled architecture across all voltage ranges Bench or rack-mount configuration options availableTypical Applications Audio frequency signal measurement and verification RF broadband noise floor assessment Fast-rising pulse characterization Decibel-based power and level measurementsCompatibility & Integration Direct form, fit, and function replacement for the HP 3400A voltmeter.

3400B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	True RMS analog voltmeter
Series Family	HP 3400A / 3400B
Response	true RMS
Maximum Voltage Class	300 V
Minimum Full Scale Class	1 mV class
Frequency Range Class	10 Hz to 10 MHz class
Display	analog meter
Predecessor	3400A
Input	AC voltage only
Waveform	RMS of arbitrary waveforms within crest-factor limits of the 3400B table
Form Factor	benchtop analog voltmeter
Attenuator	stepped ranges
Application	audio through HF RMS voltage
Documentation	HP 3400B RMS voltmeter operating and service manual
Calibration	3400B full-scale and frequency-response procedure
Input Impedance Class	high-Z / 50 ohm class of 3400-series
Overload	see 3400B manual maximum input by range
Accuracy	see 3400B specification table (do not invent percent)
Crest Factor	see 3400B specification table
Power	AC mains operated
Operating Environment	laboratory ambient per 3400B manual
Meter Scale	RMS-calibrated analog scale
Verification	use the 3400B specification table for warranted accuracy vs frequency

3400B Specifications

PARAMETER	VALUE
Agilent Keysight 3400B RMS Voltmeter	Overview
Applications	True-RMS audio through HF voltage in production and calibration labs that standardized on 3400B after 3400A.
Analog meter	Replaces 3400A
Technical Specifications	Instrument Type: True RMS analog voltmeter

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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Notes

3400B as true-RMS successor to 3400A from HP 3400B product literature. Range/bandwidth class matches the 3400-series RMS voltmeter family; warranted percent tables are in the 3400B manual.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.