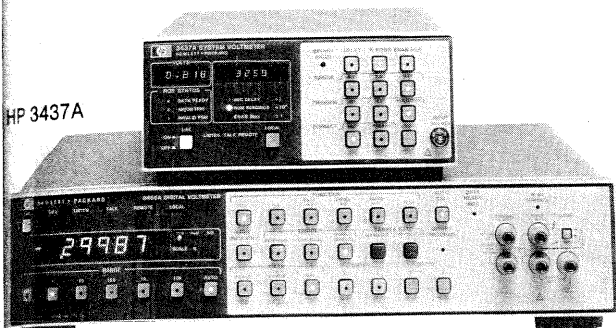


- 5½/6½-Digit DVM with Auto Cal
- High Speed 3½ Digit System Voltmeter



HP 3455A

HP 3437A Description

The Hewlett-Packard 3437A System Voltmeter is designed for systems. It is a 3½-digit, high-speed dc voltmeter with sample and hold. The standard unit measures dc volts, provides trigger delay, burst reading capability and Hewlett-Packard Interface Bus (HP-IB).

There are three dc floating input ranges: 0.1V, 1.0V and 10.0V full scale with a maximum display of "1998." Sample and Hold allow the HP 3437A to be an instantaneous reading voltmeter. The trigger delay can be set from 0.1µs to 1.0 second and the number of readings can be set from 0 to 9999 readings.

Performance

Static Accuracy (90 days, 23°C ± 5°C)

10 V range: ±(0.05% of reading + 1.6 counts).

Static accuracy temperature coefficient (0°C–50°C):
±(0.002% reading + 0.05 counts) / °C.

Input Characteristics

10 V range: R = 1 MΩ ± 20%; C < 75 pF.

Maximum input voltage high to low on all ranges: < ±30 V peak.

Maximum voltage low to chassis: ±42 V peak.

Maximum reading rate (remote, N Rdgs. > 1, and a zero delay listener)

ASCII: 3600 readings/s.

Packed: 5700 readings/s.

Input Bandwidth (3 dB)

1 V and 10 V range: 1.0 MHz.

General

Operating temperature: 0 to 55°C.

Storage temperature: -40°C to 75°C.

Humidity range: < 95% R.H., 0°C to 40°C.

Power: 100 V, 120 V, 220 V, 240 V +5%, -10%, 48 Hz to 440 Hz line operation, < 42 VA.

Size: 88.9 mm H x 212.7 mm W x 527.1 mm D (3½" x 8¾" x 20¾").

Weight: net, 5.6 kg (12 lb 4 oz). Shipping, 7.6 kg (16 lb 12 oz).

HP 3437A System Voltmeter

\$3300

Option W30: extended warranty

\$95

HP 3455A Description

Hewlett-Packard's 3455A Digital Voltmeter is a microprocessor controlled 5½- or 6½-digit integrating voltmeter for bench or systems applications. The standard instrument measures dc volts, ac volts, and resistance. HP-IB and auto or manual ranging are also standard.

Measuring Speed

The HP 3455A is fully guarded and has greater than 60 dB normal mode noise rejection at reading rates of up to 24 readings per second on all dc ranges. Ohms reading rates are up to 12 readings/second and an ac fast mode gives reading rates of up to 13 readings/second at

frequencies above 300 Hz. (Readings/second given for 60 Hz operation and high resolution off.)

Performance

DC measurements can be made with up to 1µV sensitivity. Ohms measurements are made with either a 2-wire and 4-wire mode. The High Resolution (6½-digit) mode gives dc and ohms measurements with greater than 1 part per million resolution. The standard true rms converter gives ac measurements from 30 Hz to 1 MHz. Complex signals with crest factors of up to 7:1 at full scale can be measured.

Specifications

Accuracy ± (% of reading + counts)

24 hrs. 23°C ± 1°C		
Range	24 Hrs.	90 Days
1 V	0.003 + 4	0.006 + 4
10 V	0.002 + 3	0.005 + 3
100 & 1000 V	0.004 + 3	0.007 + 3

Input resistance: 0.1 V through 10 V range: > 10¹⁰ ohms. 100 V and 1000 V range: 10 megohm ± 0.1% with Auto Cal. "off."

Maximum Input Voltage: High to low input terminals: ±1000 V peak; **Guard to chassis:** ±500 V peak; **Guard to low terminal:** ±200 V peak.

NMR at 50 or 60 Hz ± 0.1%: > 60 dB.

ECMR with 1 kΩ Unbalance in Lo at DC: > 160dB;

AC Voltage (rms converter)

Input Impedance

Front terminals: 2 MΩ ± 1% shunted by less than 105 pf.

Rear terminals: 2 MΩ ± 1% shunted by less than 90 pf.

Maximum Input Voltage

High to low terminals: ±1400 volts peak; 10⁷ VHz max.

Guard to chassis: ±500 V peak; **Guard to low terminal:** ±200 V peak.

Crest factor: 7:1 at full scale.

Performance (rms converter)

Accuracy: [± % of reading + counts] (ac coupled)

Fast ACV	300 Hz to 20 kHz	20 kHz to 100 kHz	100 kHz to 250 kHz	250 kHz to 500 kHz	500 kHz to 1 MHz
	30 Hz to 20 kHz				
90 days 23°C ± 5°C	0.05 + 50	0.50 + 100	2.00 + 250	5.00 + 500	6.00 + 3100

Accuracy ± (% of reading + counts) 4-wire kΩ

24 hours: 23°C ± 1°C		
Range	24 Hours	90 Days
1 kΩ	0.0025 + 4	0.0035 + 5
10 kΩ	0.0045 + 4	0.0060 + 5
100 kΩ	0.0020 + 5	0.0035 + 6
1000 kΩ	0.0120 + 4	0.0135 + 5
10,000 kΩ	0.1000 + 4	0.1000 + 5

Maximum Reading Rates for Remote Operations. (Rdgs/s)

Function	50 Hz	60 Hz
DCV	22	24
Ohms	11	12
ACV (rms)	1.1	1.3
Fast ACV (rms)	12	13

General

Power: 100 V, 120 V, 240 V +5% -10%, 48-400 Hz; < 60 VA.

Size: 88.9 H x 425.5 W x 527.1 mm D (3.5" x 16.75" x 20.75").

Weight: net, 9.38 kg (20.7 lb); shipping, 11.8 kg (26 lb).

Options

001: average converter

HP 3455A Digital Voltmeter

Option W30: extended warranty