



GPS-3065A

6½ Digit Bench Multimeter



Six And A Half Digits, With A Screen That Explains Them.

A 6½ digit bench multimeter with a 3.5-inch colour display that shows two parameters from one input at once, AC voltage with its frequency, say, and draws the trend, the histogram or the history of a measurement without a computer attached. DC voltage is read to 35 ppm of reading plus 5 ppm of range on the 10 V range over a year, and readings run at up to 2500 a second.

Behind the display is the full bench set: DC and AC volts to 1000 V, DC and AC current to 12 A, two and four wire resistance to 1 GΩ, capacitance to 100 mF, frequency and period to 300 kHz, temperature on platinum RTDs and user-defined sensors, diode and continuity, and a DC:DC ratio. Integration runs from 0.02 to 100 power line cycles, with auto-zero and a choice of 10 MΩ or greater than 10 GΩ input impedance on the low DC ranges.

Maths covers relative, statistics, dB and dBm and a limit test with pass and fail on the trigger output. RS-232, LAN and USB carry an SCPI command set compatible with the 34401A family and the Fluke 45, so existing test code moves across. USB host on the front panel logs readings to a memory stick as CSV, and calibration needs only a 10 V and a 10 kΩ standard.

KEY FEATURES

- 6½ digits · 2500 readings a second
- 35 ppm + 5 ppm DCV, one year
- 3.5 inch colour display, two parameters at once
- Trend, histogram and history on screen
- RS-232, LAN, USB · SCPI, 34401A compatible
- Calibrate from a 10 V and a 10 kΩ standard

IDEAL FOR

- Calibration and standards laboratories
- Automated test with SCPI control
- R&D and design characterisation
- Production test and burn-in
- Education and training benches

MEASUREMENT RANGES

Function	Ranges	Best resolution	Accuracy, one year, $\pm$ (% of reading + % of range)
Measurement ranges · 6½ digits · 23 $\pm$ 5 °C · figures for the 10 V, 10 k Ω and 1 A ranges; full per-range tables in the operating manual			
DC voltage	100 mV, 1 V, 10 V, 100 V, 1000 V	100 nV	0.0035 + 0.0005 (10 V)
AC voltage, true RMS	100 mV to 750 V · 3 Hz to 300 kHz	100 nV	0.06 + 0.03 (10 V, 10 Hz to 20 kHz)
DC current	10 μ A to 12 A	10 pA	0.05 + 0.006 (1 A)
AC current, true RMS	100 μ A to 12 A · 3 Hz to 10 kHz	100 pA	0.10 + 0.04 (1 A)
Resistance, 2 and 4 wire	10 Ω to 1 G Ω	10 $\mu\Omega$	0.01 + 0.001 (10 k Ω)
Frequency and period	3 Hz to 300 kHz	1 μ Hz	0.01 % of reading
Capacitance	1 nF to 100 mF	1 pF	1 + 0.3 (10 nF to 10 mF)
Temperature	Pt100 and Pt1000 RTD, user-defined sensor	0.001 °C	$\pm$ 0.16 °C plus probe
Diode and continuity	Diode 1 V · continuity threshold selectable	—	—
DC:DC ratio	Reference 100 mV to 10 V · input 100 mV to 1000 V	—	—

Integration 0.02 to 100 power line cycles; 2500 readings a second at 0.02 PLC and 4½ digits. Input impedance 10 M Ω , or greater than 10 G Ω on the 100 mV to 10 V DC ranges. Auto-zero, three AC filters and a 50,000-reading trigger count. Inputs are on the front panel; the 12 A terminal is fused at 15 A and the 100 mA terminal at 500 mA. Input protection is CAT II 300 V, 1000 V peak HI to LO and 500 V peak LO to earth.



WHAT'S IN THE BOX

- GPS-3065A bench multimeter
- Test lead set
- Mains lead
- Two spare fuses
- Operating manual and calibration certificate

BEFORE ORDERING · Inputs are on the front panel only and there is no IEEE-488 port; remote control is RS-232, LAN or USB, and the trigger input and measurement-complete output are on the rear. The instrument is rated CAT II 300 V and must not be used on higher categories. Optional accessories: rack mounting kit, Pt100 probe, RS-232 and USB cables. Specify the supply voltage, 110 V or 220 V, when ordering.

GENERAL SPECIFICATIONS

Item	Order Code
GPS-3065A 6½ digit bench multimeter, front inputs, RS-232, LAN and USB	423065

DISPLAY

3.5 inch colour TFT, 480 × 320 · two parameters from one input · trend chart, histogram, history and list views

MATHS

Relative · max, min, average, standard deviation · dB, dBm · limit test with pass and fail output · hold

PROGRAMMING

SCPI · command sets compatible with the 34401A family and the Fluke 45

CALIBRATION

Two-standard calibration from a 10 V and a 10 k Ω reference, under one hour · one-year accuracy figures

ENVIRONMENT

Operating -5 to 45 °C, 5 to 85 % RH · storage -20 to 70 °C

OPERATING MANUAL

GPS-3065A Operating Manual, Issue 2

READING RATE

Up to 2500 readings a second · integration 0.02 to 100 PLC · 512 k reading memory

INTERFACES

RS-232 · LAN · USB device · USB host for CSV logging and firmware update · trigger in and measurement-complete out

INPUTS

Front panel · 2 and 4 wire · CAT II 300 V · 1000 V peak HI to LO, 500 V peak LO to earth · 15 A and 500 mA fuses

POWER

110 V or 220 V $\pm$ 10 %, 45 to 66 Hz (45 to 440 Hz at 110 V) · under 20 W

SIZE AND WEIGHT

265 × 105 × 335 mm (W × H × D) · about 2.7 kg

WARRANTY

1 year, subject to product registration with GPS LTD · service, calibration and repair available