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Data Sheet

August 14, 2026

FLUKE

Fluke 8050A 4 1/2" Digital Multimeter

The Fluke 8050A is a 4.5-digit portable/bench digital multimeter with true-RMS AC, conductance, relative, and dB functions. Instruction-manual specification tables list DC voltage ranges from 200 mV to 1000 V with one-year accuracy on the order of 0.03 percent of reading plus digits class, AC voltage to 750 V, resistance to 20 Mohm, and DC/AC current to 2000 mA with fused inputs. Bench and portable voltage current resistance measurements, conductance for very high resistance, dBm measurements with selectable reference impedances, and relative offset measurements in service and lab work. Crest Factor AC Class: peak to RMS ratios supported per manual table Open Circuit Ohms Voltage Class: less than 3.5 V on all ranges Response Time Ohms 20 Mohm Class: 10 seconds maximum Range and accuracy examples from Fluke 8050A Instruction Manual specification section. Use the full one-year accuracy matrix in the manual for authoritative percent-of-reading plus digit limits by range and frequency; faceplate and certificate remain controlling for a specific unit.



MODEL

Fluke 8050A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8050A

LISTING

<https://aumictechlabs.com/products/8050a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 8050A is a 4-1/2 digit LCD digital multimeter engineered for precision measurement across DC/AC voltage, current, resistance, conductance, and specialized functions. Dual-slope integration analog-to-digital conversion delivers noise-free measurements with 0.03% basic DC accuracy and 1-year calibration stability. Built-in overload and transient protection (up to 6 kV, 10

microseconds) ensure reliable operation in demanding field and laboratory environments.

Technical Specifications

Voltage & Current Measurement

DC voltage: 10 μ V to 1000 V, $\pm(0.03\%$ of reading + 2 digits)

AC voltage (True RMS): 10 mV to 750 V, 20 Hz to 50 kHz with -3 dB point at 200 kHz

DC current: 10 nA to 2 A

AC current (True RMS): 10 μ A to 2 A

Resistance & Conductance

Resistance: 10 m Ω to 20 M Ω ; ranges supply sufficient voltage for PN junction testing

Conductance: Up to 100,000 M Ω equivalent resistance

Advanced Functions

Diode and transistor testing

Decibel measurements (dBm) referenced to 16 user-selectable impedances

Relative reference offset capability across all measurement functions

dB voltage measurements with configurable reference impedances

Display & Protection

4-1/2 digit LCD with automatic polarity and overrange indication

Input impedance: 10 M Ω in parallel with 60 dB at 60 Hz or 50 Hz (1 k Ω unbalance)

Fuse-protected input connector for current measurements

Key Features

Dual-slope integration ensures noise immunity and long-term stability

True RMS AC measurement from 20 Hz to 50 kHz

Extended frequency response to 200 kHz

Transient overvoltage protection to 6 kV, 10 microseconds

Full overload protection across all functions and ranges

Typical Applications

Electronic circuit troubleshooting, component characterization, field service diagnostics, laboratory measurements, and diode/transistor verification.

Compatibility & Integration

Standard test lead connectivity with fused input protection for safe current measurement operations.

8050A Characteristics / Specifications

PARAMETER	VALUE
Resolution	4.5 digits
DC Voltage Ranges	200 mV to 1000 V
DC Voltage Input Impedance Class	10 Mohm
DC Voltage Basic Accuracy Class	0.03 percent of reading plus digits class one year
AC Voltage Ranges	200 mV to 750 V
AC Current Ranges	200 uA to 2000 mA
DC Current Ranges	200 uA to 2000 mA
DC Current Accuracy Example 200 uA Class	0.3 percent of reading plus 2 digits class
Resistance Ranges	200 ohm to 20 Mohm
Resistance Accuracy Low Range Class	0.1 percent of reading plus digits class
Conductance Function	yes for high resistance
Diode Test	yes
Relative Mode	yes dB Measurement: yes with selectable reference impedances
AC Coupling	true RMS AC coupled class
Current Overload Protection	2 A fuses class
Operating Temperature Class	0 C to 50 C
Form Factor	portable bench DMM
Display	numeric LED or LCD class per revision
Crest Factor AC Class	peak to RMS ratios supported per manual table
Open Circuit Ohms Voltage Class	less than 3.5 V on all ranges
Response Time Ohms 20 Mohm Class	10 seconds maximum
Operating temperature	Class: 0 C to 50 C

8050A Specifications

PARAMETER	VALUE
Fluke 8050A 4.5 Digit Digital Multimeter	Overview
Key Features	4.5 digit resolution
Conductance function for high ohms	Relative and dB measurement modes
Technical Specifications	Resolution: 4.5 digits

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 C to 50 C
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Operating Temperature Class	0 C to 50 C
Form Factor	portable bench DMM
Display	numeric LED or LCD class per revision
Crest Factor AC Class	peak to RMS ratios supported per manual table
Open Circuit Ohms Voltage Class	less than 3.5 V on all ranges
Response Time Ohms 20 Mohm Class	10 seconds maximum Notes Range and accuracy examples from Fluke 8050A Instruction Manual specification section. Use the full one-year accuracy matrix in the manual for authoritative percent-of-reading plus digit limits by range and frequency; faceplate and certificate remain controlling foraspecific unit.

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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Resolution	4.5 digits
DC Voltage Ranges	200 mV to 1000 V
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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

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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.