

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

FLUKE

Fluke 8502A/02/03

The Fluke 8502A is a high-accuracy digital multimeter known for its precision and stability. It features a wide range of measurement functions including DC voltage, AC voltage, resistance, and current. Option 02 adds true RMS AC measurement capabilities, while option 03 enhances the instrument with additional memory and data logging features. Ideal for calibration labs and metrology applications.



MODEL

**Fluke
8502A/02/03**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8502A/02/03

LISTING

<https://aumictechlabs.com/products/8502a-02-03-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 8502A is a 6½-digit digital multimeter engineered for precision DC and resistance measurements with optional AC, current, and interface capabilities. Microprocessor control and modular construction enable flexible configuration, remote programming, and rapid data acquisition at up to 500 readings per second. Active components housed in plug-in modules minimize downtime and support system integration via optional IEEE-488 interfaces. Technical Specifications Measurement Resolution & Accuracy Resolution: 6½ digits DC voltage accuracy: 6 ppm basic True RMS AC accuracy (Option 09A): Up to 0.015% within 6-second maximum response across eight ranges (30 Hz to 100 kHz) Overrange capability: Up to 212% Measurement Ranges (Standard) DC Volts: 5 ranges Resistance: 8 ranges Current: 5 ranges Performance Characteristics Acquisition speed: Up to 500 readings/second Warm-up time to rated accuracy: 2

hours Operating temperature: 0°C to 50°C Non-operating temperature: -40°C to 70°C Humidity range: 0°C to 18°C at 80% RH; 18°C to 40°C at 75% RH; 40°C to 50°C at 60% RH Environmental compliance: MIL-T-28800 Class 5 style E for shock and vibration Physical Dimensions: 10.8 cm H × 42.5 cm L × 43.2 cm W Key Features Plug-in module architecture for rapid reconfiguration Microprocessor-controlled measurement and control operations Front-panel and remote programming interfaces Optional AC measurement via true RMS converter (Option 09A); 400 Hz operation supported Optional calibration memory (Option 04) for automatic correction factor entry Optional current shunt enhancement (Option 03) Optional IEEE-488-1975 interface (Option 05) for digital system control Interface isolator and external trigger capability (Option 08A) for guarded remote operations Typical Applications Precision bench and system-integrated DC voltage and resistance measurement; automated test systems requiring high-speed data logging; standards-traceable calibration environments; temperature-stable laboratory measurements.

8502A0203 Characteristics / Specifications

PARAMETER	VALUE
Display Digits Class	6.5
DC Voltage Ranges	100 mV 1 V 10 V 100 V 1000 V
DC Voltage Normal Resolution Class	5.5 digits
DC 100 mV Resolution Class	1 uV class
DC 1000 V Resolution Class	10 mV class
DC Input Impedance Low Ranges	greater than 10000 Mohm
DC Input Impedance 100 V And 1000 V	10 Mohm
Basic Instrument Power	12 W at 115/230 VAC +/-10 percent 50-60 Hz
Fully Loaded Power	24 W
Basic Mass	9.1 kg
Fully Loaded Mass	10.92 kg
Operating Temperature Class	0 C to 50 C class
Guard To Chassis Maximum	1000 V
HI Sense To LO Sense Maximum	1000 V
Remote Programming	memory programming from front panel or remote
Form Factor	benchtop/system DMM
A/D Technique	recirculating remainder R2
Operating temperature	Class: 0 C to 50 C class

8502A0203 Specifications

PARAMETER	VALUE
Fluke 8502A 6.5 Digit System Digital Multimeter	Overview
Key Features	6.5 digit microprocessor-controlled DMM
Modular options for AC ohms current and interfaces	Recirculating remainder R2 A/D technique
Technical Specifications	Display Digits Class: 6.5

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 C to 50 C class
Operating Temperature	Class: 0 C to 50 C class
Operating Temperature Class	0 C to 50 C class
Guard To Chassis Maximum	1000 V
HI Sense To LO Sense Maximum	1000 V
Remote Programming	memory programming from front panel or remote
Form Factor	benchtop/system DMM
A/D Technique	recirculating remainder R2 Notes From Fluke 8502A Operating/Service Manual specification tables for mainframe DC volts. Optional AC ohms and current accuracies are module-specific; confirm installed options on the configuration label.

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	
Specifications	
PARAMETER	VALUE
Display Digits Class	6.5
DC Voltage Ranges	100 mV 1 V 10 V 100 V 1000 V
DC Voltage Normal Resolution Class	5.5 digits
DC 100 mV Resolution Class	1 uV class
DC 1000 V Resolution Class	10 mV class
DC Input Impedance Low Ranges	greater than 10000 Mohm
DC Input Impedance 100 V And 1000 V: 10 Mohm	
Specifications	
PARAMETER	VALUE
Basic Instrument Power	12 W at 115/230 VAC +/-10 percent 50-60 Hz
Fully Loaded Power	24 W
Basic Mass	9.1 kg
Fully Loaded Mass	10.92 kg
Operating Temperature Class	0 C to 50 C class
Guard To Chassis Maximum	1000 V
HI Sense To LO Sense Maximum	1000 V
Option 01: AC/DC converter averaging	
Option 02: ohms converter	
Option 03: current shunts	
Option 05: IEEE interface	
Option 09A: AC/DC converter RMS	
Specifications	
PARAMETER	VALUE
Remote Programming	memory programming from front panel or remote
Form Factor	benchtop/system DMM
A/D Technique	recirculating remainder R2

Notes

From Fluke 8502A Operating/Service Manual specification tables for mainframe DC volts. Optional AC ohms and current accuracies are module-specific; confirm installed options on the configuration label.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

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