

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

FLUKE

Fluke 5101B Calibrator

The Fluke 5101B is a 4.5-digit-class multifunction calibrator used to calibrate DMMs and related instruments. It sources DC/AC voltage to 1100 V, DC/AC current to 2 A, and resistance from 1 ohm to 10 Mohm, with guarded outputs and 4-wire sensing. Option -03 adds wideband AC voltage characterization; Options -05/-06 add IEEE-488 or RS-232. Current extends to 20 A with a 5220A transconductance amplifier. DC current accuracy: +/- (0.025% of setting + 0.0025% of range + 0.01 uA) class AC current 50 Hz-1 kHz: +/- (0.07% of setting + 0.01% of range + 0.02 uA) class Resistance accuracy examples (6 months): 1 ohm 0.02%; 10 ohm 0.01%; 1 kohm 0.005%; 100 kohm 0.01%; 1 Mohm 0.01%; 10 Mohm 0.05% Specs from Fluke 5101B product and reseller technical summaries consistent with OEM ranges. Confirm installed options on the unit.



MODEL

Fluke 5101B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5101B

LISTING

<https://aumictechlabs.com/products/5101b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 5101B Calibrator is a precision instrument for calibrating analog and digital multimeters and electronic test equipment to 4½ digits. It has five core measurement functions DC voltage, AC voltage, DC current, AC current, and resistance - across ranges suitable for laboratory and production calibration environments. The unit combines a front-panel calculator-type keyboard, digital display with % error indication, and built-in cassette tape storage for automated calibration procedures, eliminating manual setup errors. Technical Specifications Output Ranges Voltage (DC

and AC): 20 mV to 1100 V Current (DC and AC): Up to 2000 mA (2 A); extends with external amplifiers Resistance: Up to 10 M Ω AC frequency: Typically up to 50 kHz; extends to 10 MHz with Wideband AC Voltage option (-03) Accuracy & Uncertainty DC voltage: 0.005% basic accuracy; 40 ppm uncertainty AC voltage (50 Hz to 10 kHz): $\pm(0.035\%$ of setting + 0.005% of range + 50 μ V) AC voltage (10 kHz to 50 kHz): $\pm(0.06\%$ of setting + 0.008% of range + 50 μ V) AC uncertainty: 350 ppm basic All specifications valid for 6 months at 20°C to 30°C ambient Output Features Guarded output and 4-wire sensing Digital display of output and function % Error display for simplified calibration verificationKey Features Built-in cassette tape deck for storing and recalling calibration procedures Front-panel controls optimized for user operation without computer knowledge Operationally stable across +10°C to +40°C with cassette; 0°C to 50°C without Meets MIL-T-28800 Class 5, Style E shock and vibration requirementsTypical Applications Calibration laboratories and production test environments requiring multi-function sourcing with automated procedure execution.Compatibility & Integration Compatible with Fluke 7411C and MET/CAL calibration systems Compatible with Navy MECCA systems Integrates with Fluke 5205A Precision Power Amplifier and 5220A Transconductance Amplifier IEEE-488 interface available (Option -05) EIA RS-232C interface available (Option -06)

Features & description

From manufacturer datasheet

Features

- Five-function V/I/ohms source • Guarded output and 4-wire sensing • % error display and keyboard entry • Cassette procedure storage on classic units • Wideband ACV and remote options
-

Applications

- Calibration of 3.5- and 4.5-digit DMMs • Bench multifunction electrical calibration • Automated procedures via GPIB/RS-232 options • Current workloads to 20 A with 5220A

5101B Characteristics / Specifications

PARAMETER	VALUE
Model	5101B
Manufacturer	Fluke
Instrument Type	Multifunction Calibrator
Alias	5101B; Fluke 5101B
DC/AC voltage	to 1100 V
DC/AC current	to 2 A (to 20 A with 5220A)
Resistance	1 ohm to 10 Mohm (4-wire sensing below higherVranges)
DCV ripple/noise	<=0.05% of setting rms class
DC current accuracy	+/- (0.025% of setting + 0.0025% of range + 0.01 uA) class
Resistance accuracy examples (6 months)	1 ohm 0.02%; 10 ohm 0.01%; 1 kohm 0.005%; 100 kohm 0.01%; 1 Mohm 0.01%; 10 Mohm 0.05%

5101B Specifications

PARAMETER	VALUE
Fluke 5101B Multifunction Calibrator	Overview
Applications	- Calibration of 3.5- and 4.5-digit DMMs
Key Features	- Five-function V/I/ohms source
Technical Specifications	Model: 5101B
Notes	Specs from Fluke 5101B product and reseller technical summaries consistent with OEM ranges. Confirm installed options on the 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

Specifications

PARAMETER	VALUE
Model	5101B
Manufacturer	Fluke
Instrument Type	Multifunction Calibrator
Alias	5101B; Fluke 5101B

Specifications

PARAMETER	VALUE
DC/AC voltage	to 1100 V
DC/AC current	to 2 A (to 20 A with 5220A)
Resistance	1 ohm to 10 Mohm (4-wire sensing below higherVranges)

Basic DCV accuracy class (6 months, 20-30 degC): +/- (0.005% of setting + 0.001% of range + 5 uV)

DCV ripple/noise: <=0.05% of setting rms class

ACV accuracy 50 Hz-10 kHz: +/- (0.05% of setting + 50 uV) class

ACV accuracy 10-50 kHz (to 110 V): +/- (0.08% of setting + 80 uV) class

Wideband option -03: ACV characterized to 10 MHz class

DC current accuracy: +/- (0.025% of setting + 0.0025% of range + 0.01 uA) class

AC current 50 Hz-1 kHz: +/- (0.07% of setting + 0.01% of range + 0.02 uA) class

Resistance accuracy examples (6 months): 1 ohm 0.02%; 10 ohm 0.01%; 1 kohm 0.005%; 100 kohm 0.01%; 1 Mohm 0.01%; 10 Mohm 0.05%

Option -05: IEEE-488 interface

Option -06: RS-232C interface

Notes

Specs from Fluke 5101B product and reseller technical summaries consistent with OEM ranges. Confirm installed options on the unit.

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.