

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

FLUKE

Fluke 175/EFSP-NIST True RMS Digital Multimeter

The Fluke 175/EFSP-NIST True RMS Digital Multimeter is a versatile tool for electrical troubleshooting and maintenance. It measures AC/DC voltage and current, resistance, capacitance, frequency, and temperature. Features include True RMS accuracy, a large digital display with backlight, and a built-in test lead storage.



MODEL

Fluke 175/EFSP-NIST

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

175/EFSP-NIST

LISTING

<https://aumictechlabs.com/products/175-efsp-nist-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 175/EFSP-NIST is a professional digital multimeter engineered for precision electrical measurements across industrial, laboratory, and field service environments. True RMS capability delivers accurate AC voltage and current readings on non-sinusoidal waveforms. This model includes NIST-traceable calibration certification, meeting regulatory and quality control requirements for critical applications. The instrument combines broad measurement functionality with proven reliability and intuitive operation. Technical Specifications Voltage & Current DC Voltage: 600 mV to 600 V ranges; $\pm(0.15\% + 2)$ accuracy; 0.1 mV to 0.1 V resolution AC Voltage (True RMS): 6 V to 600 V; $\pm(1.0\% + 3)$ at 50/60 Hz; $\pm(2.0\% + 3)$ from 40 Hz to 500 Hz; 0.001 V to 0.1 V resolution DC Current: 60 mA to 10 A ranges; $\pm(0.2\% + 2)$ for 60 mA/600 mA; $\pm(0.5\% + 3)$ for 10 A; 0.01 mA to 0.01 A resolution AC Current (True RMS): 60 mA to 10 A; $\pm(1.0\% + 3)$ for 60 mA/600 mA; $\pm(1.5\% + 3)$ for 10 A; 0.01 mA to 0.01 A resolution Additional Measurements

Resistance: 600 Ω to 60 M Ω ; $\pm(0.9\% + 2)$ to 600 k Ω ; $\pm(5.0\% + 5)$ at 60 M Ω Capacitance: 10 nF to 100 μ F; $\pm(1.2\% + 5)$ to 10 μ F; $\pm(2.0\% + 5)$ at 100 μ F Frequency: 200 Hz to 200 kHz; $\pm(0.1\% + 1)$ accuracy Temperature: -40 °C to 400 °C; $\pm(1.0\% + 1)$ accuracy Continuity and diode testing with audible indication Operating Characteristics Input Impedance: 10 M Ω nominal (voltage) Display: Large backlit digital readout Battery: 9V alkaline; ~400 hours typical life Operating Temperature: -20 °C to 55 °C Storage Temperature: -40 °C to 60 °C Humidity: 0% to 95% RH (non-condensing) Safety Rating: IEC 61010-1; Pollution Degree 2; CAT III 600 V Key Features True RMS measurement for accurate AC readings on distorted waveforms. Wide frequency capability from 40 Hz to 500 kHz. High input impedance minimizes loading effects during voltage measurement. Backlit display supports low-light diagnostics. Integrated continuity and diode test functions. Typical Applications Electrical system troubleshooting, preventive maintenance, process control verification, component characterization, field service diagnostics.

175EFSPNIST Characteristics / Specifications

PARAMETER	VALUE
Display Counts	6000
True RMS Readings	AC
Basic DC Accuracy	0.15 percent
DC Voltage Accuracy Best	plus or minus (0.15 percent plus 2)
DC mV Range	600.0 mV at 0.1 mV
DC Voltage Ranges	6.000 V, 60.00 V, 600.0 V, 1000 V
DC Voltage Accuracy 1000 V Range	0.15 percent plus 2
AC Voltage Accuracy 45 Hz to 500 Hz	1.0 percent plus 3
AC Voltage Accuracy 500 Hz to 1 kHz	2.0 percent plus 3
AC Voltage Maximum	1000 V
DC Current Maximum	10 A
AC Current Maximum	10 A
Resistance Maximum	50 Mohm
Resistance Accuracy Mid Ranges	0.9 percent plus 1
Capacitance Maximum	10000 uF
Capacitance Accuracy Class	1.2 percent plus 2
Frequency Maximum	100 kHz
Frequency Accuracy Class	0.1 percent plus 1
Operating Temperature	-10 C to +50 C
Humidity 0 C to 35 C	0 percent to 90 percent non-condensing
Overvoltage Category	1000 V CAT III, 600 V CAT IV
Size	43 × 90 × 185 mm
Weight	420 g
Battery Life Alkaline Typical	about 200 hours continuous use class
Humidity	0 C to 35 C: 0 percent to 90 percent non-condensing

175EFSPNIST Specifications

PARAMETER	VALUE
Auto and manual ranging with Display Hold and Auto Hold	Min/Max-Average recording
Analog bar graph	No backlight (contrast with 177/179)
Technical Specifications	Display Counts: 6000
Notes	Model column from Fluke 170 Series datasheet and 175/177/179 users manual. 175 has no backlight and no temperature measurement.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	10 C to +50 C
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Humidity	0 C to 35 C: 0 percent to 90 percent non-condensing
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Overvoltage Category	1000 V CAT III, 600 V CAT IV
Size	43 × 90 × 185 mm
Weight	420 g
Battery Life Alkaline Typical	about 200 hours continuous use class Notes Model column from Fluke 170 Series datasheet and 175/177/179 users manual. 175 has no backlight and no temperature measurement.

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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Notes

Model column from Fluke 170 Series datasheet and 175/177/179 users manual. 175 has no backlight and no temperature measurement.

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.