

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

FLUKE

Fluke 177/EFSP-NIST True RMS Digital Multimeter with backlight

The Fluke 177 True RMS Digital Multimeter is a versatile tool for electricians and technicians. It measures AC/DC voltage and current, resistance, capacitance, frequency, and temperature. Featuring a large, backlit display for clear readings in any environment, it also offers MIN/MAX/AVG recording and smooth auto-ranging for ease of use. Includes NIST-traceable calibration.



MODEL

Fluke 177/EFSP-NIST

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

177/EFSP-NIST

LISTING

<https://aumictechlabs.com/products/177-efsp-nist-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fluke 177/EFSP-NIST is a True RMS digital multimeter engineered for field service professionals and technicians requiring high-accuracy electrical measurements. It delivers True RMS AC and DC voltage and current measurements alongside resistance, frequency, and capacitance capabilities. The instrument combines a 6000-count digital display with an analog bar graph and backlight for enhanced visibility across diverse lighting environments. Technical Specifications True RMS measurement capability spans AC and DC voltage to 1000 V and current to 10 A. Resolution reaches 0.1 mV for DC/AC voltage, 10 μ A for current, 0.1 Ω for resistance, and 0.01 Hz for frequency. Basic accuracy is 0.09%. The multimeter measures resistance up to 50 M Ω .

and capacitance to 10,000 μF . Display delivers 6000 counts across 3.75 digits with integrated analog bar graph and backlight. Operating temperature range spans 14 to 122°F (-10 to 50°C); storage from -22 to 140°F (-30 to 60°C). Dimensions are 1.7 × 3.5 × 7.3 inches (43 × 90 × 185 mm), weighing 14.8 oz (420 g). Battery life extends approximately 200 hours typical with alkaline cells (without backlight). Key Features Dual ranging modes: manual and automatic selection MIN/MAX/AVG recording for statistical analysis Auto HOLD function to freeze readings Display HOLD capability Continuity and diode testing functions Closed-case calibration accessible through front panel NIST-traceable calibration supplied as ISO Certificate with full data and uncertainties Safety-rated CAT IV 600 V and CAT III 1000 V Typical Applications Electrical troubleshooting, circuit verification, component characterization, and field service diagnostics. The dual safety ratings and True RMS capability suit both residential and commercial installation work. Included Accessories Multimeter unit, test leads, 9V battery (pre-installed), user manual, and traceable calibration certificate with full data and uncertainties.

177EFSPNIST Characteristics / Specifications

PARAMETER	VALUE
Display Counts	6000
True RMS Readings	AC
Basic DC Accuracy	0.09%
DC Voltage Accuracy Best	$\pm(0.09\% + 2)$
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% + 2
AC Voltage Accuracy 45 Hz to 500 Hz	1.0% + 3
AC Voltage Accuracy 500 Hz to 1 kHz	2.0% + 3
AC Voltage Maximum	1000 V
DC Current Maximum	10 A
AC Current Maximum	10 A
Resistance Maximum	50 M Ω
Resistance Accuracy Mid Ranges	0.9% + 1
Capacitance Maximum	10000 μ F
Capacitance Accuracy Class	1.2% + 2
Frequency Maximum	100 kHz
Frequency Accuracy Class	0.1% + 1
Operating Temperature	-10 C to +50 C
Humidity 0 C to 35 C	0% to 90% non-condensing
Overvoltage Category	1000 V CAT III, 600 V CAT IV
Size	43 × 90 × 185 mm
Battery Life Alkaline Typical	about 200 hours without backlight continuous use class
Humidity	0 C to 35 C: 0% to 90% non-condensing

177EFSPNIST Specifications

PARAMETER	VALUE
Auto/manual ranging with Display Hold and Auto Hold	Min/Max-Average recording
Technical Specifications	Display Counts: 6000
Notes	Model column from Fluke 170 Series datasheet/users manual (175/177/179). 177 includes backlight but not the 179 temperature function.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	10 C to +50 C
Operating Temperature	10 C to +50 C
Humidity	0 C to 35 C: 0% to 90% non-condensing
Humidity 0 C to 35 C	0% to 90% non-condensing
Overvoltage Category	1000 V CAT III, 600 V CAT IV
Size	43 × 90 × 185 mm
Battery Life Alkaline Typical	about 200 hours without backlight continuous use class Notes Model column from Fluke 170 Series datasheet/users manual (175/177/179). 177 includes backlight but not the 179 temperature function.

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 Counts	6000
True RMS Readings	AC
Basic DC Accuracy	0.09%
DC Voltage Accuracy Best	±(0.09% + 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% + 2
AC Voltage Accuracy 45 Hz to 500 Hz: 1.0% + 3	
AC Voltage Accuracy 500 Hz to 1 kHz: 2.0% + 3	
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PARAMETER	VALUE
AC Voltage Maximum	1000 V
DC Current Maximum	10 A
AC Current Maximum	10 A
Resistance Maximum	50 MΩ
Resistance Accuracy Mid Ranges	0.9% + 1
Capacitance Maximum	10000 uF
Capacitance Accuracy Class	1.2% + 2
Frequency Maximum	100 kHz
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Notes

Model column from Fluke 170 Series datasheet/users manual (175/177/179). 177 includes backlight but not the 179 temperature function.

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.