

# Fluke 73, 77, 175, 177 and 179 Digital Multimeters

FLUKE

Versatile meters for maintenance, field service and bench repair.



The 170 Series have the features needed to find most electrical, electronic, electro-mechanical and heating and ventilation problems. They are simple to use and have significant improvements over Fluke's original 70 Series like true-rms, more measurement functions, conformance to the latest safety standards, and a much larger display that's easier to view.

### 170 Series features include:

- Wide 1000 V measurement range
- True-rms for precise measurement of non linear signals
- Capacitance, resistance, continuity and frequency
- Built-in thermometer (179)
- Large, easy-to-read display
- Backlight for work in dim areas (177, 179)
- Min/Max to record signal fluctuations
- Free your hands with the optional TPAK magnetic hanger

### Electrical safety

All inputs are protected to measurement Category III 1000 V and Category IV 600 V. They can withstand transient impulses in excess of 8000 V assuring your protection from surges and spikes.



True-rms

### Why you need a true-rms meter

- Electronic loads with switching power supplies or inverters distort the ac voltage and current sine wave
- Non true-rms meters can measure up to 40 % low
- True-rms meters make the most accurate measurements when the sine wave is distorted

Waveform		Non True-rms meter	True-rms meter
	Normal sine wave	Correct	Correct
	Square wave	Reads 0 % high	Correct
	Inverter input current	Reads 40 % low	Correct
	Three phase rectified	Reads 5-30 % low	Correct



### For Combo Kits, see page 5:

- Electrician's 179 Multimeter and Voltage Tester Combo Kit
- Electronics 179 Multimeter and Deluxe Accessory Combo Kit
- 179 and IR Thermometer Combo Kit

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## Features - 70 and 170 Series DMMs

Feature	73	77	175	177	179	179/TPK
Max voltage	600	1000	1000	1000	1000	1000
True-rms			♦	♦	♦	♦
Temperature					♦	♦
Basic dc accuracy	0.3 %	0.3 %	0.15 %	0.09 %	0.09 %	0.09 %
Backlight				♦	♦	♦
Min/Max/Avg			♦	♦	♦	♦
ToolPak meter hanging kit with magnet			Opt	Opt	Opt	Included

### Fluke 73 and 77

Basic autoranging multimeters with TouchHold<sup>®</sup> to freeze the measurement display. Includes holster and test leads.



Fluke 73

## Specifications - 170 Series

Function	Range and resolution	Best accuracy
VDC	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 0.09 % (Models 177 and 179) ± 0.15 % (Model 175)
VAC	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 1.0 % of reading
ADC	60.00 mA, 400.0 mA, 6.000 A, 10.00 A <sup>1</sup>	± 1.0 % of reading
AAC <sup>2</sup>	60.00 mA, 400.0 mA, 6.000 A, 10.00 A <sup>2</sup>	± 1.5 % of reading
Resistance	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 50.00 MΩ	± 0.9 % of reading
Capacitance	1000 nF, 10.00 μF, 100.0 μF, 9999 μF	± 1.2 % of reading
Frequency <sup>3</sup>	99.99 Hz, 999.9 Hz, 9.999 Hz, 99.99 kHz	± 0.1 % of reading
Temperature (Model 179)	-40 °C to +400 °C (-40 °F to +752 °F)	1.0 % of reading

<sup>1</sup>All ac voltage and ac current ranges are specified from 5 % of range to 100 % of range.  
<sup>2</sup>10 A continuous, 20 A for up to 30 seconds.  
<sup>3</sup>Voltage frequency is specified from 2 Hz to 100 kHz. Current Frequency is specified from 2 Hz to 30 kHz.  
 Battery life: 200 hours typical for alkaline. Size (HxWxL): 4.3 cm x 9.0 cm x 18.5 cm (1.7 in x 3.5 in x 7.3 in)  
 Limited lifetime warranty

### Included accessories

Every Fluke 170 Series meter comes packaged with TL75 test leads, 9 V battery (installed), and manual. The Fluke 179 comes with an 80BK Temperature Probe.

### Ordering information

- Fluke-175 Digital Multimeter
- Fluke-177 Digital Multimeter
- Fluke-179 Digital Multimeter
- Fluke-73-3 Digital Multimeter
- Fluke-77-3 Digital Multimeter
- Fluke-179/61 Combo Kit
- Fluke-179/1AC Electricians Combo Kit
- Fluke-179/EDA Combo Kit
- Fluke-179/TPK Combo Kit

### Recommended accessories - 70 and 170 Series DMMs



TL71 See page 39

TL220 See page 39

C25 See page 44

80T-IR See page 42

801-400 See page 40



Power Tech International Group  
 sales@powertech-group.com  
 www.powertech-group.com