FLUKE®

80 Series V Industrial True-RMS Multimeter with Temperature



Accuracy and diagnostic functions for maximum industrial productivity

The new Fluke 87V has improved measurement functions, trouble-shooting features, resolution and accuracy to solve more problems on motor drives, in plant automation, power distribution, and electro-mechanical equipment. The 87V operates very similar to the classic 87, but with more problem-solving power, safety, convenience and impact protection.

Features for maximum productivity

- Unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (87V)
- Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument (87V)
- Large digit display with bright, two-level backlight makes the 80 Series V significantly easier to read than older models

NEW! 87V/E2 Industrial Electrician Combo Kit makes troubleshooting more productive with standard meter hanging accessory for hands-free operation, soft case for protection and storage, 1.5 m heat resistant silicone test leads and more.

Electrical safety

All inputs are protected to Category III, 1000 V and Category IV 600 V. They can withstand impulses in excess of 8,000 V and reduce risks related to surges and spikes.

Electrical Safety 1000 V CAT III 600 V CAT IV · CE · UL · CSA · TÜV PRODUCT SERVICE · GS · N10140 · VDE · True-rms

Specifications

Function	Range and resolution	Basic accuracy	
		83V	87V
DC Volts	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.1 %	0.05 %
AC Volts	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	0.5 %	0.7 % (True-rms)
DC Current	600.0 µA, 6000 µA, 60.00 mA, 600.0 mA, 6.000 A, 10.00 A	0.4 %	0.2 %
AC Current	600.0 µA, 6000 µA, 60.00 mA, 600.0 mA, 6.000 A, 10.00 A	1.2 %	1.0 % (True-rms)
Temperature (excl. probe)	-200 to 1090 °C (-328 to 1994 °F)	–	1.0 %
80BK Temperature Probe	-40 to 260 °C (-40 to 500 °F)	–	2.2 °C or 2 %
Resistance	600.0 Ω, 6.000 kΩ, 60.00 kΩ, 600.0 kΩ, 6.000 MΩ, 50.00 MΩ	0.4 %	0.2 %
Capacitance	10.00 nF, 100.0 nF, 1.000 µF, 10.00 µF, 100.0 µF, 9,999 µF	1.0 %	1.0 %
Frequency	199.99 Hz, 1.9999 kHz, 19.999 kHz, 199.99 kHz	0.005 %	0.005 %



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Comparison chart

Feature	83V	87V
True-rms ac voltage and current for accurate measurements on non linear signals		•
Selectable filter for accurate voltage and frequency measurements on motor drives		•
0.05 % dc accuracy		•
4-1/2 digit mode for precise measurements		•
Built-in thermometer lets you carry one less tool		•
Large display digits and two-level bright white backlight for increased visibility	•	•
10,000 µF capacitance range for components and motor caps	•	•
Peak capture to record transients as fast as 250 µs		•
Measure up to 1000 V ac and dc	•	•
Measure up to 10 A, 20 A for up to 30 seconds	•	•
Auto and manual ranging for maximum flexibility	•	•
Analog bargraph	•	•
Resistance, continuity and diode test	•	•
Frequency to 200 kHz and % duty cycle	•	•
Min/Max and average recording to capture variations automatically	•	•
Relative mode to remove test lead resistance from low ohms measurements	•	•
Improved sleep mode for long battery life	•	•
Access door for fast battery changes without breaking the calibration seal	•	•
Limited lifetime warranty	•	•
Removable holster with built in test lead and probe storage	•	•
Cat IV 600 V and Cat III 1000 V electrical safety ratings	•	•
Basic test leads and alligator clips	•	•
Bead type thermocouple temperature probe		•

Included accessories
Every Fluke 80 Series V meter comes packaged with TL75 Test Leads, AC72 Alligator Clips, holster, 9 V battery (installed), temperature probe (87V only) CD-ROM (user's manual and technical notes) and operator's guide.

Ordering information

Fluke-83-5	Industrial Multimeter
Fluke-87-5	Industrial True-rms Multimeter with Temperature
Fluke-87-5/E2	Industrial Electrician Combo Kit

Buy Combo Kit and Save



Fluke 87V/E2 Industrial Electrician Combo Kit
Includes special accessories to make industrial troubleshooting even more productive. Save more than $50* compared with the individual purchase price.

A. 87V Industrial Multimeter
B. **New!** Lightweight soft case for optimal protection and accessory storage
C. 1.5 m heat resistant silicone test leads
D. Removable test probes with 4 mm of exposed metal for use on industrial circuits
E. Retractable long reach alligator clips
F. Magnetic hanger to position and hold meter to steel surfaces
G. Temperature probe

*Savings are noted in US$

Fluke. *Keeping your world up and running.™*

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Auto and manual ranging for maximum flexibility	•	•
Analog bargraph	•	•
Resistance, continuity and diode test	•	•
Frequency to 200 kHz and % duty cycle	•	•
Min/Max and average recording to capture variations automatically	•	•
Relative mode to remove test lead resistance from low ohms measurements	•	•
Improved sleep mode for long battery life	•	•
Access door for fast battery changes without breaking the calibration seal	•	•
Limited lifetime warranty	•	•
Removable holster with built in test lead and probe storage	•	•
Cat IV 600 V and Cat III 1000 V electrical safety ratings	•	•
Basic test leads and alligator clips	•	•
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