

**TECHNICAL DATA** 

# Fluke 87V Industrial Multimeter





## **Key features**

- Identify complex signal problems fast
- Supports accurate measurements on VFDs using a low-pass filter
- Captures intermittents as fast as 250 µS with Peak Capture

## **Product overview: Fluke 87V Industrial Multimeter**

@media only screen and (max-width: 600px) { .compare-table { display: none; } } .compare-table .comp-table { border-collapse: collapse; table-layout: fixed; width: 100%; } .product-image-container { border-style: hidden !important; } .compare-table .comp-table td { top: 2377px; left: 1034px; width: 153px; height: 73px; /\* UI Properties \*/ text-align: center; font: normal normal normal 16px/19px Helvetica; letter-spacing: -0.08px; color: #212121; background-color: #f2f2f2; opacity: 1; border: 1px solid #cccccc; opacity: 1; } .compare-table .comp-table th { color: #336699; top: 1958px; left: 539px; width: 163px; height: 38px; text-align: center; font: normal normal bold 16px/19px Helvetica; letter-spacing: -0.08px; color: #336699; border: 1px solid #cccccc; opacity: 1; } .compare-table .comp-table .category-head { color: black !important; border-bottom: 1px solid #cccccc; opacity: 1; background-color: #f2f2f2 !important; } .compare-table .comp-table .product-image-container { background-color: #eaeaea !important; } .compare-table .comp-table .header-row th { background: #ccccc 0% 0% no-repeat padding-box; opacity: 1; } .compare-table .comp-table .header-row .title-highlight { color: black; background-color: #e2e2e2; } .compare-table .comp-table .info-highlight { background-color: #ffffff !important; } .compare-table .comp-table .prod-img { width: 163px; height: auto; }

The Fluke 87V Industrial Multimeter provides the resolution and accuracy to efficiently troubleshoot motor drives, plant automation, power distribution, and electromechanical equipment - even in loud, high-energy, and high-altitude locations. The 87V is designed so you can work more efficiently.



- Easy-access door for fast battery changes without breaking the calibration seal
- Analog bar graph for fast changing or unstable signals
- Large digit display with bright, two-level backlight for easier reading in low light
- Touch Hold keeps readings on display even after removing probes

The 87V lets you identify complex electrical problems fast. It supports accurate measurements on VFDs using a low-pass filter. The meter also captures intermittents as fast as  $250 \, \mu S$  using Peak Capture. High-frequency, high-energy noise generated by large drive systems is blocked from your measurements with specially designed shielding.

### Built to highest safety standards

All the inputs in the 87V are updated to the third edition of the EN 61010-1 to CAT III 1000 V and CAT IV 600 V. The meter is designed to withstand spikes of more than 8000 V. You also benefit from an audible Input Alert warning if the test leads are placed in the incorrect input jacks for the measurement being made.

Removable holster with built in test lead and probe storage for convenience

The 87V has a removeable holster that also holds a test probe during testing for easier viewing. Relative mode lets you remove test lead resistance, improving accuracy of low-resistance measurements. To make your life even easier, the 87V fits into an optional magnetic hanger for easy set-up and viewing while freeing your hands for other tasks.

### Additional measurement features

The Fluke 87V is designed and built in the U.S. and comes with a lifetime warranty.











	Fluke 115 Field Technicians Digital Multimet
CAT rating	CAT III 600 V
True-rms readings	8
Voltage AC/DC	600 V
Current AC/DC	10 A
Resistance	40 MΩ
Capacitance	10,000 µF
Temperature	-
Infrared camera	-
Additional measurement capabilities	Continuity/diode test

Fluke 87V Industrial Multimeter	Fluke 3000 FC Series Wireless Multimete
AT III 1000 V AT IV 600 V	CAT III 1000 V CAT IV 600 V
	8
000 V	1000 V
D A	400 mA
0 ΜΩ	50 MΩ
0,000 μF	10,000 µF
000.0 °C to 1090 °C	with t3000 FC
	=
requency, today dide test, ator drive (VFD) aeasurement, tyly cycle, graphs, analog ar graph, relative ference	Frequency, continuity/diode test. Able to connect to three 3000 FC modules.

Fluke 1587 FC Insulation Multimeter CAT III 1000 V CAT IV 600 V
8
1000 V
400 mA
50 MΩ 10,000 μF
-40 °C to 537 °C
-
Frequency, PVDAR timed ratio tests, continuity/diode test, motor drive (VFD) microsmps, relative reference

Fluke 279 FC True-rms Thermal Multimeter CAT III 1000 V CAT IV 500 V
1000 V
2500 A AC (with iFlex)
50 MΩ 10,000 μF Infrared camera -10 °C to 200 °C
0
Frequency, continuity/diode test, motor drive (VFD) measurement

# **Specifications: Fluke 87V Industrial Multimeter**

Specifications		
	Maximum voltage	1000 V
Voltage DC	Accuracy	±(0.05% + 1)
	Maximum resolution	10 μV



	Maximum voltage	1000 V
W 8 4 5	Accuracy	±(0.7% + 2) True RMS
Voltage AC	AC bandwidth	20 kHz with low pass filter; 3 dB @ 1 kHz
	Maximum resolution	0.1 mV
	Maximum amps	10 A (20 A for 30 seconds maximum)
Current DC	Amps accuracy	±(0.2% + 2)
	Maximum resolution	0.01 μΑ
	Maximum amps	10 A (20 A for 30 seconds maximum)
Current AC	Amps accuracy	±(1.0% + 2) True RMS
	Maximum resolution	0.1 μΑ
	Maximum resistance	50 ΜΩ
Resistance	Accuracy	±(0.2% + 1)
	Maximum resolution	0.1 Ω
	Maximum capacitance	9,999 μF
Capacitance	accuracy	±(1% + 2)
	Maximum resolution	0.01 nF
	Maximum frequency	200 kHz
Frequency	Accuracy	±(0.005% + 1)
	Maximum resolution	0.01 Hz
	Maximum duty cycle	99.9%
Duty cycle	Accuracy	$\pm(0.2\% \text{ per kHz} + 0.1\%)$
	Maximum resolution	0.1%
Temperature measurement	-200.0 °C - 1090 °C -328.0 °F - 1994.0 °F excluding probe	
80 BK temperature probe	-40.0 °C - 260 °C -40.0 °F - 500 °F, 2.2 °C or 2% whichever is greater	
	Maximum conductance	60.00 nS
Conductance	Accuracy	±(1.0% + 10)
	Maximum resolution	0.01 nS
	Range	3 V
Diode	Resolution	1 mV
	Accuracy	±(2% + 1)
Duty cycle range	Accuracy	Within ±(0.2% per kHz + 0.1%)
Environmental Specifications		
Operating temperature	−20 °C to + 55 °C	
Storage temperature	-40 °C to + 60 °C	



Humidity (without condensation)	0% - 90% (0 °C - 35 °C) 0% - 70% (35 °C - 55 °C)		
Operating Altitude	2000 m		
Safety Specifications			
Overvoltage category	EN 61010-1 to 1000 V CAT III, 600V CAT IV		
Agency approvals	CE, CSA, RCM	CE, CSA, RCM	
Mechanical and General Specifications			
Size	201 x 98 x 52 mm (with holster)		
Weight	355 g 624 g – with holster	355 g 624 g – with holster	
	Digital	6000 counts updates 4/sec. 19,999 counts in high-resolution mode	
Display	Analog	32 segments, updates 40/sec	
	Frequency	19,999 counts, updates 3/sec at > 10 Hz	
Warranty	Lifetime	Lifetime	
Battery Life	Alkaline	~400 hours typical, without backlight	
Shock	1 Meter drop per IEC	1 Meter drop per IEC 61010-1:2001	
Vibration	Per MIL-PRF-2880	Per MIL-PRF-28800 for a Class 2 instrument	



# **Ordering information**



Fluke 87V

Fluke 87V Industrial Multimeter

### Includes:

- TL75 Test Leads (TL175 EUR)
- AC175 Alligator Clips
- Holster
- 9V Battery (Installed)
- 80BK Temperature Probe

Optional Property of the Control of	accessories
Fluida TDA	V TaalDakIM Maan

## Description

Fluke TPAK ToolPak™ Magnetic Meter Hanger Powerful magnetic strap for safe, hands free measurements.

Fluke TL175 TwistGuard™ Test Leads

Simply twist to change the exposed probe tip length.

Fluke C25 Large Soft Case for DMMs

Fits most mid-sized multimeters, process and temperature meters.

Fluke i1010 AC/DC Current Clamp

Highly reliable, measures 1 A to 1000 A and provides accurate current reading without breaking the circuit. Buy Online Now.



### $\textbf{Fluke}. \ \textit{Keeping your world up and running}. \\ \textcircled{\$}$

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