80 Series V Digital Multimeters

FLUKE®



Fluke 87V



Fluke 83V

Performance and accuracy for maximum industrial productivity

The Fluke 80 Series V have improved measurement functions, troubleshooting features, resolution and accuracy to solve more problems on motor drives, in plant automation, power distribution, and electro-mechanical equipment.

The Fluke 87V has a unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment. A built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument.

Lifetime Warranty!

83V/87V

CAT III 1000V
CAT IV 600V

On all inputs



Fluke 87V Ex

True RMS

not 87V Ex

Features

	83V	87V / 87V Ex
True-RMS voltage and current for accurate measurements on non linear signals		●
Bandwidth (voltage/current)	5 kHz	20 kHz
Digital display counts (default/selectable)	6000	20000 / 6000
Selectable filter for accurate voltage and frequency measurements on motor drives		●
Large display with analog bargraph and 2 level bright white backlight	●	●
Auto and manual ranging for maximum flexibility	●	●
Built-in thermometer lets you carry one less tool		●
Peak capture to record transients as fast as 250 µs		●
Relative mode to remove test lead resistance from low ohms measurements	●	●
Min-Max-Average recording with Min/Max Alert to capture variations automatically	●	●
AutoHOLD® to capture stable readings avoiding noisy signals	●	●
Audible continuity, diode test and duty cycle	●	●
Input Alert	●	●
"Classic" design with new removable holster with built in test lead and probe storage	●	●
Improved selectable sleep mode for long battery life	●	●
Easy battery exchange without opening the complete case	●	●
ATEX safety rating Ⓔx II 2 G Eex ia IIC T4		87V Ex

Specifications

(Check the Fluke web for detailed specifications)

Functions	Maximum Range	83V		87V/87V Ex*	
		Max. resolution	Accuracy	Max. resolution	Accuracy
Voltage DC	1000 V	0.1 mV	±(0.1%+1)	10 µV	±(0.05%+1)
Voltage AC	1000 V	0.1 mV	±(0.5%+2)	10 µV	±(0.7%+2)
Current DC	10 A **	0.1 µA	±(0.4%+2)	0.01 µA	±(0.2%+2)
Current AC	10 A **	0.1 µA	±(1.2%+2)	0.01 µA	±(1.0%+2)
Resistance	50 MΩ	0.1 Ω	±(0.4%+1)	0.01 Ω	±(0.2%+1)
Conductance	60 nS	0.01 nS	±(1.0%+10)	0.001 nS	±(1.0%+10)
Capacitance	9999 µF	0.01 nF	±(1.0%+2)	0.01 nF	±(1.0%+2)
Frequency	> 200 kHz	0.01 Hz	±(0.005%+1)	0.01 Hz	±(0.005%+1)
Temperature	-200 to 1090 °C	-		0.1 °C	1.0%
80BK temperature probe	- 40 to 260 °C	-		-	2.2 °C or 2%

Accuracies are best accuracies for each function.
* 87V accuracy is stated for 6000 counts and resolution for 20000 counts
** 20 A up to 30 seconds

Battery Life: Over 400 hours typical (alkaline).
Size (HxWxD):
200 mm x 95 mm x 48 mm

Weight: 0.6 kg
83V/87V: Lifetime Warranty
87V Ex: One Year Warranty

Recommended Accessories

(Not for hazardous zones)



C25



TL238



i410/i1010



TPAK



L215

Included Accessories

TL75 test leads, AC72 alligator clips, yellow holster (H80M excl. TPAK), 80BK temperature probe (87V only), 9 V battery (installed), CD-ROM (user's manual and technical notes) and operator's guide.

Ordering Information

Fluke 83V	Multimeter
Fluke 87V	True RMS Multimeter
Fluke 87V Ex	Intrinsically safe True RMS multimeter
Fluke 87V/E2	Industrial Electrician Combo Kit

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