

80 Series V Digital Multimeters

FLUKE®



Fluke 87V



Fluke 83V



83V/87V



On all inputs



Fluke 87V Ex



True RMS



not 87V Ex

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
See page 11

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. For 87V Ex see also page 96 and 97.

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 μ s		●
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 II 2 G Ex 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	$\pm(0.1\%+1)$	10 μ V	$\pm(0.05\%+1)$
Voltage AC	1000 V	0.1 mV	$\pm(0.5\%+2)$	10 μ V	$\pm(0.7\%+2)$
Current DC	10 A **	0.1 μ A	$\pm(0.4\%+2)$	0.01 μ A	$\pm(0.2\%+2)$
Current AC	10 A **	0.1 μ A	$\pm(1.2\%+2)$	0.01 μ A	$\pm(1.0\%+2)$
Resistance	50 M Ω	0.1 Ω	$\pm(0.4\%+1)$	0.01 Ω	$\pm(0.2\%+1)$
Conductance	60 nS	0.01 nS	$\pm(1.0\%+10)$	0.001 nS	$\pm(1.0\%+10)$
Capacitance	9999 μ F	0.01 nF	$\pm(1.0\%+2)$	0.01 nF	$\pm(1.0\%+2)$
Frequency	> 200 kHz	0.01 Hz	$\pm(0.005\%+1)$	0.01 Hz	$\pm(0.005\%+1)$
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

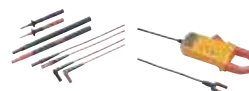
87V Ex: One Year Warranty

Recommended Accessories

(Not for hazardous zones)



C25
See page 106



TL238
See page 100



i410/i1010
See page 103



TPAK
See page 109



L215
See page 101