

80 Series III Digital Multimeters

The high performers

True-rms



The 80 Series III are the original choice for demanding customers. The range extends from the entry-level, but already fully equipped, 83 III up to the industry-standard 87 III. All meters offer a high accuracy and all the measurement functions you need. Features like a backlight display, relative measurements and Min-Max-Average recording make the functionality and versatility complete. They are packaged in the "classic" design case with removable holster and come with a CAT III 1000V safety rating and lifetime warranty.

Safety Conformance

All inputs are protected to EN61010-1 CAT III 1000 V, UL, CSA and TÜV listed.

Features

	83 III	85 III	87 III	787
True-RMS measurements		AC	AC	AC
Bandwidth	5 kHz	20 kHz	20 kHz	1 kHz
Digital display counts	4000	4000	20000 / 4000	30000 (ADC)
High contrast display	●	●	●	●
Analog bargraph / segments	43-segments	43-segments	Analog pointer	% of scale 420mA
Zoom mode on bargraph for high resolution analog readings	●	●		
Source, stimulate, ramp and step current up to 20mA				●
Auto and Manual ranging	●	●	●	●
Touch Hold® and Relative modes	●	●	●	●
Min-Max-Average recording mode with Min/Max Alert	●	●	●	●
250 µs Peak Min-Max recording			●	
Audible continuity and diode test	●	●	●	●
Duty cycle	●	●	●	●
"Classic" design with removable holster	●	●	●	●
Input Alert	●	●	●	
Battery access without breaking calibration seal	●	●	●	●/-
Selectable Sleep Mode preserves battery life	●	●	●	●



The Fluke 787 Process Meter™

The 787 Process Meter™ combines the capabilities of a digital multimeter and a loop calibrator.

Accessories and Ordering Information

Included Accessories

Every meter comes packaged with a C81Y yellow protective holster and Flex-Stand™, TL75 Test Leads and two AC70 Alligator Clips, 9V battery (installed), manual and operator's guide.

Ordering Information

Fluke 83 III True RMS Multimeter
 Fluke 85 III True RMS Multimeter
 Fluke 87 III True RMS Multimeter
 Fluke 787 ProcessMeter

Specifications

Functions	Maximum	Max. resolution	83 III	85 III	87 III *	787
Voltage DC	1000 V	10 µV 0.1 mV	±(0.1%+1)	±(0.08%+1)	±(0.05%+1)	±(0.1%+1)
Voltage AC	1000 V	10 µV 0.1 mV	±(0.5%+2)	±(0.7%+2)	±(0.7%+2)	±(0.7%+2)
Current DC	10 A (787: 1A)	0.01 µA 0.1 µA	±(0.4%+2)	±(0.2%+2)	±(0.2%+2)	±(0.05%+1)
Current AC	10 A (787: 1A)	0.01 µA 0.1 µA	±(1.2%+2)	±(1.0%+2)	±(1.0%+2)	±(1.0%+2)
Resistance	40 MΩ	0.01 Ω 0.1 Ω	±(0.4%+1)	±(0.2%+1)	±(0.2%+1)	±(0.2%+1)
Conductance	50 nS	0.01 nS	±(1.0%+10)	±(1.0%+10)	±(1.0%+10)	
Capacitance	5 µF	0.01 nF	±(1.0%+3)	±(1.0%+3)	±(1.0%+3)	
Frequency	200 kHz	0.01 Hz	±(0.005%+1)	±(0.005%+1)	±(0.005%+1)	±(0.005%+1)

Accuracies are best accuracies for each function.

* 87-III accuracy is stated for 4,000 counts and resolution for 20,000 counts

Battery Life: Models 83 and 85, 500 hours typical (alkaline).

Model 87, 400 hours typical (alkaline). Model 787, 50 hours typical (alkaline).

Size (Without Holster) (HxWxD): 187 mm x 87 mm x 32 mm

Weight: 0.36 kg

Lifetime Warranty (3 years on 787)