

Fluke 80 Series V Digital Multimeters

Specifications	
Voltage DC	Maximum Voltage: 1000V
	Accuracy: Fluke 83 V: $\pm(0.1\%+1)$ Fluke 87 V: $\pm(0.05\%+1)$
	Maximum Resolution: Fluke 83 V: 100 μ V Fluke 87 V: 10 μ V
Voltage AC	Maximum Voltage: 1000V
	Accuracy: Fluke 83 V: $\pm(0.5\%+2)$ Fluke 87 V: $\pm(0.7\%+2)$ True RMS
	AC Bandwidth Fluke 83 V: 5kHz Fluke 87 V: 20kHz* *with low pass filter; 3db @ 1kHz
	Maximum Resolution: 0.1 mV
Current DC	Maximum Amps: 10A (20 A for 30 seconds maximum)
	Amps Accuracy: Fluke 83 V: $\pm(0.4\%+2)$ Fluke 87 V: $\pm(0.2\%+2)$
	Maximum Resolution: Fluke 83 V: 0.01 mA Fluke 87 V: 0.01 μ A
Current AC	Maximum Amps: 10A (20 A for 30 seconds maximum)
	Amps Accuracy: Fluke 83 V: $\pm(1.2\%+2)$ Fluke 87 V: $\pm(1.0\%+2)$ True RMS
	Maximum Resolution: 0.1 μ A
Resistance	Maximum Resistance: 50 M Ω
	Accuracy: Fluke 83 V: $\pm(0.4\%+1)$ Fluke 87 V: $\pm(0.2\%+1)$
	Maximum Resolution: 0.1 Ω
Capacitance	Maximum Capacitance 9,999 μ F
	Accuracy $\pm(1\%+2)$
	Maximum Resolution 0.01 nF
Frequency	Maximum Frequency 200 kHz
	Accuracy $\pm(0.005\%+1)$
	Maximum Resolution 0.01 Hz
Duty Cycle	Maximum Duty Cycle 99.9%
	Accuracy $\pm(0.2\%$ per khz $+0.1\%)$
	Maximum Resolution 0.1%
Temperature Measurement	Fluke 87 V, 87 V/E: -200.0 $^{\circ}$ C - 1090 $^{\circ}$ C -328.0 $^{\circ}$ F - 1994.0 $^{\circ}$ F excluding probe
80 BK Temperature Probe	-40.0 $^{\circ}$ C - 260 $^{\circ}$ C -40.0 $^{\circ}$ F - 500 $^{\circ}$ F, 2.2 $^{\circ}$ C or 2% whichever is greater
Conductance	Maximum Conductance 60.00 nS
	Accuracy $\pm(1.0\%+10)$
	Maximum Resolution 0.01 nS
Diode	Range 3 V
	Resolution: 1 mV
	Accuracy: $\pm(2\% + 1)$
Duty Cycle Range	Accuracy: Within $\pm(0.2\%$ 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	UL, CSA, TÜV, VDE listed						
Mechanical & General Specifications							
Size	201 x 98 x 52 mm (with holster)						
Weight	355 g						
Weigh With Holster and Flex-Stand	624 g						
Display	<table border="0"> <tr> <td>Digital:</td> <td>6000 counts updates 4/sec. (Model 87 also has 19,999 counts in high-resolution mode.)</td> </tr> <tr> <td>Analog:</td> <td>32 segments, updates 40/sec.</td> </tr> <tr> <td>Frequency:</td> <td>19,999 counts, updates 3/sec at > 10 Hz.</td> </tr> </table>	Digital:	6000 counts updates 4/sec. (Model 87 also has 19,999 counts in high-resolution mode.)	Analog:	32 segments, updates 40/sec.	Frequency:	19,999 counts, updates 3/sec at > 10 Hz.
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Warranty	Lifetime						
Battery life	Alkaline: ~400 hours typical, without backlight						
Shock	1 Meter drop per IEC 61010-1:2001						
Vibration	Per MIL-PRF-28800 for a Class 2 instrument						