

# Fluke 80 Series V Digital Multimeters

Specifications	
Voltage DC	<b>Maximum Voltage:</b> 1000V <b>Accuracy:</b> Fluke 83 V: $\pm(0.1\%+1)$ Fluke 87 V: $\pm(0.05\%+1)$ <b>Maximum Resolution:</b> Fluke 83 V: 100 $\mu$ V Fluke 87 V: 10 $\mu$ V
Voltage AC	<b>Maximum Voltage:</b> 1000V <b>Accuracy:</b> Fluke 83 V: $\pm(0.5\%+2)$ Fluke 87 V: $\pm(0.7\%+2)$ True RMS <b>AC Bandwidth</b> Fluke 83 V: 5kHz Fluke 87 V: 20kHz* *with low pass filter; 3db @ 1kHz <b>Maximum Resolution:</b> 0.1 mV
Current DC	<b>Maximum Amps:</b> 10A (20 A for 30 seconds maximum) <b>Amps Accuracy:</b> Fluke 83 V: $\pm(0.4\%+2)$ Fluke 87 V: $\pm(0.2\%+2)$ <b>Maximum Resolution:</b> Fluke 83 V: 0.01 mA Fluke 87 V: 0.01 $\mu$ A
Current AC	<b>Maximum Amps:</b> 10A (20 A for 30 seconds maximum) <b>Amps Accuracy:</b> Fluke 83 V: $\pm(1.2\%+2)$ Fluke 87 V: $\pm(1.0\%+2)$ True RMS <b>Maximum Resolution:</b> 0.1 $\mu$ A
Resistance	<b>Maximum Resistance:</b> 50 M $\Omega$ <b>Accuracy:</b> Fluke 83 V: $\pm(0.4\%+1)$ Fluke 87 V: $\pm(0.2\%+1)$ <b>Maximum Resolution:</b> 0.1 $\Omega$
Capacitance	<b>Maximum Capacitance</b> 9,999 $\mu$ F <b>Accuracy</b> $\pm(1\%+2)$ <b>Maximum Resolution</b> 0.01 nF
Frequency	<b>Maximum Frequency</b> 200 kHz <b>Accuracy</b> $\pm(0.005\%+1)$ <b>Maximum Resolution</b> 0.01 Hz
Duty Cycle	<b>Maximum Duty Cycle</b> 99.9% <b>Accuracy</b> $\pm(0.2\%$ per khz $+0.1\%)$ <b>Maximum Resolution</b> 0.1%
Temperature Measurement	<b>Fluke 87 V, 87 V/E:</b> -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	<b>Maximum Conductance</b> 60.00 nS <b>Accuracy</b> $\pm(1.0\%+10)$ <b>Maximum Resolution</b> 0.01 nS
Diode	<b>Range:</b> 3 V <b>Resolution:</b> 1 mV <b>Accuracy:</b> $\pm(2\% + 1)$
Duty Cycle Range	<b>Accuracy:</b> Within $\pm(0.2\%$ per kHz $+0.1\%)$
Environmental Specifications	

<b>Operating Temperature</b>	-20°C to +55°C
<b>Storage Temperature</b>	-40°C to +60°C
<b>Humidity (Without Condensation)</b>	0% - 90% (0°C - 35°C) 0% - 70% (35°C - 55°C)
<b>Operating Altitude</b>	2000 m
<b>Safety Specifications</b>	
<b>Overvoltage category</b>	EN 61010-1 to 1000 V CAT III, 600V CAT IV
<b>Agency Approvals</b>	UL, CSA, TÜV, VDE listed
<b>Mechanical &amp; General Specifications</b>	
<b>Size</b>	201 x 98 x 52 mm (with holster)
<b>Weight</b>	355 g
<b>Weigh With Holster and Flex-Stand</b>	624 g
<b>Display</b>	<b>Digital:</b> 6000 counts updates 4/sec. (Model 87 also has 19,999 counts in high-resolution mode.) <b>Analog:</b> 32 segments, updates 40/sec. <b>Frequency:</b> 19,999 counts, updates 3/sec at > 10 Hz.