

Table 3: Measurement characteristics

Characteristic	Description			
DC voltage				
V ranges	4 V, 40 V, 400 V, 1000 V			
mV range	400 mV			
Accuracy (% + 10 counts) ¹	<i>DMM830</i>	<i>DMM850</i>	<i>DMM870</i>	
	±0.2%	±0.1%	±0.06%	
AC voltage				
Ranges	4 V, 40 V, 400 V, 750 V			
Accuracy ⁵ (% + 40 counts) ¹	<i>DMM830</i>	<i>DMM850</i>	<i>DMM870</i>	
	50 to 100 Hz	±1.0%	±0.8%	±0.7%
	>100 to 1 kHz ²	±2.5%	±2.0%	±1.5%
	>1 kHz to 10 kHz ²	---	±3.5%	±2.5%
	>10 kHz to 20 kHz ²	---	---	±3.5%
Bandwidth	<i>DMM830</i>	<i>DMM850</i>	<i>DMM870</i>	
	1 kHz	10 kHz	20 kHz	
Crest factor	≤3			
Input impedance	10 MΩ paralleled by 100 pF			
AC +DC volts	Same as AC (RMS) + 1.2% + 10 counts ³			
dBm/dB	dBm reference = 1 mV into 600 Ω			
	dB reference = 1 V			
Current				
AC and DC ranges	4,000 μA, 400 mA, 10 A: 20 A maximum for <30 seconds			
DC accuracy (% + 10 counts) ¹	<i>DMM830</i>	<i>DMM850</i>	<i>DMM870</i>	
	±0.5%	±0.4%	±0.3%	
AC accuracy (% + 80 counts) ¹	±1.2%	±0.9%	±0.9%	
Bandwidth (typical)	≤1 kHz			
Resistance				
Ranges				
Ω ranges	400 Ω, 4 kΩ, 40 kΩ, 400 kΩ, 4 MΩ, 40 MΩ			
LV ranges	4 kΩ, 40 kΩ, 400 kΩ, 4 MΩ, 40 MΩ			
Accuracy	<i>DMM830</i>	<i>DMM850</i>	<i>DMM870</i>	
	Ω (% + 10 counts) ¹	±0.5%	±0.4%	±0.3%
	LV (% + 1 count) ^{2,3}	±1%	±0.8%	±0.6%
	4 MΩ/400 Ω range	±1%	±0.8%	±0.6%
	40 MΩ range ³	±5%	±5%	±5%

Table 3: Measurement characteristics (cont.)

Characteristic	Description
Compliance voltages (typical)	1 V (Ω setting) 0.4 V (LV setting)
Continuity threshold ³	Beeper sounds when resistance is approximately 75 Ω or less
Diode test ³	
Test current (typical)	0.6 mA
Test voltage (typical)	≤ 3 V
Capacitance	
Ranges	4 nF, 40 nF, 400 nF, 4 μ F, 40 μ F, 400 μ F, 4 mF, 40 mF
Accuracy ³ (% + 10 count)	
4 nF to 4 μ F	$\pm 1\%$ (delta mode)
40 μ F to 40 mF	$\pm 3\%$
Frequency ⁴	
Ranges	400 Hz, 4 kHz, 40 kHz, 400 kHz, 2 MHz
Accuracy ⁶ (% + 10 count)	
400 Hz to 400 kHz	$\pm 0.01\%$
2 MHz	$\pm 0.15\%$
Sensitivity	0.5 V _{p-p}
Duty factor	
Accuracy	$\pm(0.1\% + 0.05\%$ per kHz) for 5 V input
Range	15 Hz to 10 kHz (10% to 90% duty factor)
Temperature	
Range	-50° to +980° C
Accuracy	2° C
Thermocouple type	K
Peak measurements ³	
Accuracy	DC volts: $\pm 5\%$ + 40 counts of the peak value of a single 1 ms pulse

¹ Divide counts by 10 in 4000 count mode.

² 750 V, 40 M Ω –LV range unspecified.

³ 4000 count mode only.

⁴ Upper display readout is limited to 10 kHz with reduced accuracy.

⁵ >10% range, 4 V range > 1 V.

⁶ >5% range.