

The following accuracy is specified for one single channel (channel 1 or channel 2). If dual channels are used at the same time, additional % of accuracy should be added to the listed accuracy. Please refer to the supplemental dual channels specification. The following accuracy is also specified for the ZEROED (relative) value. The accuracy is given as $\pm\%$ of reading \pm number of least significant digits.

DC Voltage: (Input Impedance: 10M Ω)

Range	Resolution	Accuracy	Overload Protection
60.000mV	0.001mV	$\pm 0.2\% \pm 9$ dgts	DC 1000V
600.00mV	0.01mV	$\pm 0.1\% \pm 6$ dgts	DC 1000V
6.0000V	0.0001V	$\pm 0.1\% \pm 6$ dgts	DC 1000V
60.000V	0.001V	$\pm 0.1\% \pm 6$ dgts	DC 1000V
600.00V	0.01V	$\pm 0.1\% \pm 6$ dgts	DC 1000V
1000.0V	0.1V	$\pm 0.1\% \pm 6$ dgts	DC 1000V

AC Voltage:

Range (ACV)	Resolution	Accuracy (50/ 60Hz)	Accuracy (45Hz – 1KHz)
60.000mV	0.001mV	$\pm 0.2\% \pm 40$ dgts	$\pm 0.6\% \pm 40$ dgts
600.00mV	0.01mV	$\pm 0.2\% \pm 40$ dgts	$\pm 0.6\% \pm 40$ dgts
6.0000V	0.0001V	$\pm 0.2\% \pm 40$ dgts	$\pm 0.6\% \pm 40$ dgts
60.000V	0.001V	$\pm 0.2\% \pm 40$ dgts	$\pm 0.6\% \pm 40$ dgts
600.00V	0.01V	$\pm 0.2\% \pm 40$ dgts	$\pm 1.5\% \pm 40$ dgts
1000.0V (0-400V)	0.1V	$\pm 0.2\% \pm 40$ dgts	$\pm 4\% \pm 60$ dgts
1000.0V (400-1000V)	0.1V	$\pm 0.2\% \pm 40$ dgts	(45Hz – 400Hz) $\pm 4\% \pm 60$ dgts

Range (ACV)	Accuracy (20Hz - 45Hz)	Accuracy (1KHz– 10KHz)
60.000mV	$\pm 1.6\% \pm 50$ dgts	$\pm 4\% \pm 40$ dgts
600.00mV	$\pm 1.6\% \pm 50$ dgts	$\pm 2\% \pm 40$ dgts
6.0000V	$\pm 1.6\% \pm 50$ dgts	$\pm 2\% \pm 40$ dgts
60.000V	$\pm 1.6\% \pm 50$ dgts	$\pm 2\% \pm 40$ dgts
600.00V (0-400V)	$\pm 1.6\% \pm 50$ dgts	$\pm 5\% \pm 40$ dgts
600.00V (400-600V)	$\pm 1.6\% \pm 50$ dgts	Not Specified
1000.0V (0-400V)	$\pm 1.6\% \pm 50$ dgts	$\pm 4\% \pm 80$ dgts
1000.0V (400-1000V)	$\pm 1.6\% \pm 50$ dgts	Not Specified

DC Current:

Range	Resolution	Accuracy
600.00μA	0.01μA	±0.4%±20dgts
6000.0μA	0.1μA	±0.2%±20dgts
60.000mA	0.001mA	±0.4%±20dgts
600.00mA	0.01mA	±0.2%±20dgts
1.0000A	0.0001A	±0.2%±20dgts
10.000A	0.001A	±0.6%±20dgts

AC Current:

Range (ACA)	Resolution	Accuracy (50/60Hz)	Accuracy (45Hz – 1KHz)
600.00μA	0.01μA	±0.6%±40dgts	±0.8%±40dgts
6000.0μA	0.1μA	±0.6%±40dgts	±0.8%±40dgts
60.000mA	0.001mA	±0.6%±40dgts	±0.8%±40dgts
600.00mA	0.01mA	±0.6%±40dgts	±0.8%±40dgts
1.0000A	0.0001A	±0.6%±40dgts	±0.8%±40dgts
10.000A	0.001A	±0.9%±40dgts	±0.9%±40dgts

Range (ACA)	Accuracy (20Hz - 45Hz)	Accuracy (1KHz – 10KHz)
600.00μA	±2%±20dgts	±4%±20dgts
6000.0μA	±2%±20dgts	±4%±20dgts
60.000mA	±2%±20dgts	±0.9%±20dgts
600.00mA	±2%±20dgts	±0.9%±20dgts
1.0000A	±2%±20dgts	±2.5%±20dgts
10.000A	±3.9%±20dgts	±2.5%±20dgts

Supplemental Dual Channels Specification (DC – 400Hz):

The following accuracy should be added to all the listed accuracy if dual channels measurements are performed.

	ACV (Ch2)	DCV (Ch2)	ACA (Ch2)	DCA (Ch2)
ACV (Ch1)	±2% ± (V1 – V2) * 200 PPM (Ch1, Ch2)	±0.9% ± (V1 – V2) * 20 PPM (Ch1, Ch2)	±0.2μA / V (μA, Ch2) ±2μA / V (mA, Ch2) ±0.4mA / V (A, Ch2) ±4mV / A (mV, Ch1) ±9mV / A (V, Ch1)	±0.5% (Ch1, Ch2)
DCV (Ch1)	±0.9% ± (V1 – V2) * 20 PPM (Ch1, Ch2)	±0.5% (Ch1, Ch2)	±0.5% (Ch1, Ch2)	±0.5% (Ch1, Ch2)

The result of (V1-V2) * PPM is of volts.

V1: the voltage reading in volts of channel 1

V2: the voltage reading in volts of channel 2

PPM: parts per million, Ch1: Channel 1, Ch2: Channel2

Resistance: (Ω)

Range	Resolution	Accuracy	Overload Protection
999.99 Ω	0.01 Ω	$\pm 0.25\% \pm 9$ dgts	AC 1000V
9.9999K Ω	0.0001K Ω	$\pm 0.25\% \pm 6$ dgts	AC 1000V
99.999K Ω	0.001K Ω	$\pm 0.25\% \pm 6$ dgts	AC 1000V
999.99K Ω	0.01K Ω	$\pm 0.25\% \pm 6$ dgts	AC 1000V
9.9999M Ω	0.0001M Ω	$\pm 0.3\% \pm 9$ dgts	AC 1000V
40.000M Ω	0.001M Ω	$\pm 1.5\% \pm 9$ dgts	AC 1000V

Continuity: (•), open voltage 3V approx.)

Range	Resolution	Beeper	Overload Protection
999.99 Ω	0.01 Ω	< 40 Ω approx.	AC 1000V

Capacitance: (⇄, auto range, and for film capacitor or better)

Range	Resolution	Accuracy
60.00nF	0.01nF	$\pm 1.2\% \pm 8$ dgts
600.0nF	0.1nF	$\pm 2.5\% \pm 8$ dgts
6.000 μ F	0.001 μ F	$\pm 2.5\% \pm 8$ dgts
60.00 μ F	0.01 μ F	$\pm 3.0\% \pm 8$ dgts
490.0 μ F	0.1 μ F	$\pm 5.0\% \pm 8$ dgts

Capacitance: (⇄, manual range, and for film capacitor or better)

Range	Resolution	Accuracy
99.99nF	0.01nF	$\pm 1.2\% \pm 8$ dgts
999.9nF	0.1nF	$\pm 2.5\% \pm 8$ dgts
9.999 μ F	1 μ F	$\pm 2.5\% \pm 8$ dgts
99.99 μ F	0.01 μ F	$\pm 3.0\% \pm 8$ dgts
999.9 μ F	0.1 μ F	$\pm 5.0\% \pm 8$ dgts

Diode Test: (open voltage 3V approx., overload protection AC 1000V)

Range	Resolution	Accuracy	Short Circuit Current
3.0000V	0.0001V	$\pm 2\% \pm 5$ dgts	0.8 mA typical

Frequency: (TTL)

Range (Auto)	Resolution	Accuracy	Overload Protection
1.000Hz – 2MHz	0.0001Hz–0.0001MHz	$\pm 0.005\% \pm 4$ dgts	AC 1000V

Duty Cycle: (% , TTL, 1Hz – 600KHz)

Range	Resolution	Accuracy	Overload Protection
0.001% - 9.999%	0.001%	± 30 d/KHz ± 30 dgts	AC 1000V
10.00% – 100.00%	0.01%	± 3 d/KHz ± 3 dgts	AC 1000V


Frequency: (AC sine wave)

Range	Resolution	Accuracy	Overload Protection
1.0000Hz– 200KHz	0.0001Hz–100Hz	$\pm 0.02\% \pm 4$ dgts	AC 1000V

Duty Cycle: (% , Sine Wave)

Range	Resolution	Accuracy	Overload Protection
0.001% – 100.00%	0.001% – 0.01%	Not specified	AC 1000V

General Specifications:

Battery Type:	9V
Fuse:	Fast 20A/1000V (A terminal) Fast 1A/1000V(mA / μ A terminal)
Display:	5 + 5 digits LCD with 30 segments bar graph
Range Selection:	auto and manual
Sampling Time:	ACV, ACA: 2 times/sec (Approx.) DCV, DCA: 4 times/sec (Approx.)
Overload Indication:	OL
Power Consumption:	4 mA(approx.)
Low battery Indication:	
Operating Temperature:	-10°C to 40°C
Operating Humidity:	less than 85% relative
Altitude:	up to 2000M
Storage Temperature:	-20°C to 60°C
Storage Humidity:	less than 75% relative
Dimension:	207mm(L) x 101mm (W) x 47mm (H) 8.15" (L) x 4" (W) x 1.85" (H)
Weight:	430g / 15.2oz (battery included)
Accessories:	Users manual x 1 9V battery x 1 USB to RS-232 cable x 1 Software CD x 1 Software manual x 1

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