

- AC/DC current measurement: 40.00A/ 400.0A/ 2000A.
- True RMS measurement of AC current and voltage.
- LoZ (Low input impedance) measurement of AC/DC voltage measurement.
- Auto and full ranges: V, A, Resistance, Continuity, Diode, Capacitance, MicroCurrent and Temperature.
- AI intelligence, Ranges of Resistance, Continuity Diode, Capacitance can be automatically determined.
- Non-contact voltage detection. 55mm large jaw diameter. Low Pass Filter (LPF) at 1 KHz (-3dB) Cut-off Frequency
- Fast bar graph display (30 times/sec.) for transient observation.



- Large Backlight 3 3/4 digits LCD.
- In-Rush (INR) Current Measurement 100mS integration time.
- AC/DC voltage accuracy:  $\pm 0.5\% \pm 2$ dgts (4/40/400/1000V)
- AC/DC uA current accuracy:  $\pm 0.5\% \pm 2$ dgts (400.0uA/4000uA)
- Resistance accuracy:  $\pm 0.8\% \pm 2$ dgts (40/400/4K/40K/400K/4000K/40M $\Omega$ )
- Capacitance accuracy:  $\pm 0.8\% \pm 3$ dgts (4n/40n/400n/4u/40u/400u/4m/40mF)
- Temperature Measurement accuracy:  $\pm 0.5\% \pm 0.5$  (-200.0 ~ 1300 )
- Auto-power-off function (15 minutes).
- Maximum, minimum and hold functions.



**SPECIFICATIONS:**

**40A DC**(Manual-range,conductor is placed at the center of jaws,Zero reading before measurement,Accuracy is % of reading ± digits)

Range (A)	Resolution	Accuracy	Overload Protection
0.00 - 10.00A	10mA	±2.0%±6dgts	DC 3000A
10.00 - 40.00A		±1.5%±3dgts	

<sup>1</sup> The specification of this range can only be reached after the meter is turned on for 5 min.

**40A AC** (Manual -range, true RMS, Crest Factor≤3, conductor is placed at the center of jaws, Accuracy is % of reading ± digits)

Range (A)	Resolution	Accuracy (50/60Hz)	Accuracy (40-1KHz)	Overload Protection
0.00 - 10.00A	10mA	±2.0%±6dgts	±2.5%±6dgts	AC3000A
10.00 - 40.00A		±1.5%±5dgts	±2.5%±5dgts	

<sup>1</sup> The specification of this range can only be reached after the meter is turned on for 5 min.

**DC Current** (Auto-range conductor is placed at the center of jaws,Zero reading before measurement,Accuracy is % of reading ± digits)

Range (A)	Resolution	Accuracy	Overload Protection
0.0 - 400.0A	100mA	±1.5%±3dgts	DC 3000A
400 - 2000A	1A		

**AC Current** (Auto-range,TRUE RMS,Crest Factor ≤ 3, cable at the center ,accuracy is % of reading ± digits, Overload protection AC3000A)

Range (A)	Resolution	Accuracy (50/60Hz)	Accuracy
0.0 - 400.0A	100mA	±1.5%±5dgts	±2.5%±5dgts (40 – 1KHz)
400 - 2000A	1A	±2.0%±5dgts	±2.5%±5dgts (40 – 400Hz)

**DC uA** ( Current input into meter test lead sockets, Auto-range, Accuracy is % of reading ± digits, Input impedance: 1.6KΩ)

Range (uA)	Resolution	Accuracy	Overload Protection
0.0 - 400.0	0.1uA	±0.5%±2dgts	AC 600V
400 - 1500	1uA		

<sup>1</sup> The inputs of the DC uA measurement are via uA and COM terminals.

**AC uA** (Current input into meter test lead sockets Auto-range, Accuracy is % of reading ± digits, Input impedance: 1.6KΩ)

Range (uA)	Resolution	Accuracy (50/60Hz)	Accuracy (40-1KHz)	Overload Protection
0.0 - 400.0	0.1uA	±0.5%±2dgts	±0.5%±5dgts	AC 600V
400 - 1200	1uA			

<sup>1</sup> The inputs of the AC uA measurement are via uA and COM terminals.

**Voltage Frequency** (Auto range, Accuracy is % of reading ± digits, Periodic and zero crossing signal)

Range	Range (Hz)	Resolution	Sensitivity	Accuracy
1000V	0.0Hz – 400.0Hz	0.1Hz	0.8V	±0.5%±2dgts
	0.400KHz – 4.000KHz	1Hz		
	4.00KHz – 40.00KHz	10Hz		

**Current Frequency** (Auto range, Accuracy is % of reading ± digits, Periodic and zero crossing signal)

Range	Range (Hz)	Resolution	Sensitivity	Accuracy
40.00A 400A-2000A	0.0 – 400.0Hz	0.1Hz	1A 10A	±0.5%±2dgts
40.00A 400A-2000A	0.400K – 3.000KHz 0.400K – 4.000KHz	1Hz	1A 10A	
40.00A 400A-2000A	3.00K – 40.00KHz 4.00K – 30.00K/10KHz <sup>1</sup>	10Hz	1A 10A	

<sup>1</sup> When the current is >400A and <2000A, only 10.00KHz can be measured.

**In-Rush Current** (ACA only, starting from 0A, Integration Time 100mS)

Range	Min. triggerable current (Threshold)
40A	2A
400A	20.0A
2000A	200A

**Low input impedance of DCV (Loz DCV, Manual range, Accuracy is % of reading ± digits, Input impedance: 200KΩ)**

Range (V)	Resolution	Accuracy	Overload Protection
0.0 - 400.0	0.1V	±1.0%±2dgts	AC 1000V



**Low input impedance of ACV (Loz ACV, Manual range, True RMS, Crest Factor  $\leq 3$ , Accuracy is % of reading  $\pm$  digits, Input impedance: 200K $\Omega$ )**

Range (V)	Resolution	Accuracy (50/60Hz)	Accuracy (40 - 1KHz)	Overload Protection
0.0 - 400.0	0.1V	$\pm 1.0\% \pm 2$ dgts	$\pm 1.0\% \pm 3$ dgts	AC 1000V

**DC Voltage** (Auto-range, Accuracy is % of reading  $\pm$  digits, Input Impedance 10M $\Omega$ )

Range (V)	Resolution	Accuracy	Overload Protection
0.000 - 4.000	0.001V	$\pm 0.5\% \pm 2$ dgts	DC 1000V
4.00 - 40.00	0.01V		
40.0 - 400.0	0.1V		
400 - 1000	1V		

**AC Voltage** (Auto-range, true RMS, Crest Factor  $\leq 3$ , Accuracy is % of reading  $\pm$  digits, Input Impedance 10 M $\Omega$ )

Range (V)	Resolution	Accuracy (50/60Hz)	Accuracy (40 -1KHz)	Overload Protection
0.000 - 4.000 <sup>1</sup>	0.001V	$\pm 0.5\% \pm 2$ dgts	$\pm 0.8\% \pm 5$ dgts	AC 1000V
4.00 - 40.00	0.01V			
40.0 - 400.0	0.1V			
400 - 1000	1V			

<sup>1</sup> When measuring below AC 0.010V (40Hz ~ 400Hz), please press the LPF button to filter the noise interference.

**Continuity ( $\Omega$ )** (accuracy is % of reading  $\pm$  digits)

Range ( $\Omega$ )	Resolution ( $\Omega$ )	Accuracy	Beeping
0.0 - 400.0	0.1	$\pm 0.8\% \pm 2$ dgts	< 30 $\Omega$

**Diode**

Range (V)	Resolution(V)	Accuracy	Overload Protection
0 - 0.330V	0.001V	$\pm 100$ dgts	AC 600V
0.330 - 2.000V		$\pm 2\% \pm 5$ dgts	

**Resistance ( $\Omega$ )**


(Auto-range, Accuracy is % of reading  $\pm$  digits, Open voltage 0.5V)

Range ( $\Omega$ )	Resolution ( $\Omega$ )	Accuracy	Overload Protection
0.00 - 40.00 <sup>1</sup>	0.01	$\pm 0.8\% \pm 5$ dgts	AC 600V
40.0 - 400.0	0.1		
400 - 4000	1		
4.00K - 40.00K	0.01K		
40.0K - 400.0K	0.1K		
400K - 4000K	1K		
4.00M - 40.00M	0.01M		

<sup>1</sup> When the resistance to be tested is < 20 $\Omega$  at 40.00 $\Omega$  range, to obtain listed accuracy, users must short the test leads and zero the value before measurement. However, when the ZERO button is pressed, the meter will be locked at 40.00 $\Omega$  range, and the resistance value greater than 40 $\Omega$  will be displayed as **OL**.

**Capacitance** (Auto-range, Accuracy is % of reading  $\pm$  digits and thin film capacitor or better is used)

Range (F)	Resolution (F)	Accuracy	Overload Protection
0.000n - 4.000n <sup>1</sup>	0.001n	$\pm 1.5\% \pm 3$ dgts	AC 600V
4.00n - 40.00n	0.01n	$\pm 0.8\% \pm 3$ dgts	
40.0n - 400.0n	0.1n		
0.400u - 4.000u	0.001u		
4.00u - 40.00u	0.01u		
40.0u - 400.0u	0.1u		
0.400m - 4.000m	0.001m		
4.00m - 40.00m <sup>2</sup>	0.01m		

<sup>1</sup> At 4nF range, to obtain the listed accuracy it is necessary to ZERO first (by pressing ZERO  button once or several times until the reading becomes zero) to eliminate the capacitance effect produced by the wire of the test leads.

<sup>2</sup> Maximum measuring time of 40mF would take around 13 seconds. The smaller the capacitance value, the shorter the time.



**AC Low Pass Filter**

(LPF, Cut-off frequency (-3dB): 1 KHz (approx.))

Range	Resolution	Accuracy (of reading, 50/60Hz)
0 – 400.0A	0.1A	3%±5dgts
400 - 1000A	1A	3.5%±5dgts
1000 - 2000A	1A	4%±5dgts

**Temperature<sup>1,2</sup>**

(Auto-range, K-Type thermocouples, Accuracy is % of reading ± °C or °F)

Range (°C)	Resolution (°C)	Accuracy	Overload Protection
-200.0 to -100.0	0.1	±1.5%±0.2°C	AC 600V
-100.0 to 400.0	0.1	±0.5%±0.5°C	
400 to 1000	1	±0.5%±2°C	
1000 to 1300	1	±0.8%±2°C	
Range (°F)	Resolution (°F)	Accuracy	Overload Protection
-328.0 to -148.0	0.1	±1.5%±0.4°F	AC 600V
-148.0 to 999.9	0.1	±0.5%±0.9°F	
1000 to 1832	1	±0.5%±4°F	
1832 to 2372	1	±0.8%±4°F	

<sup>1</sup> The tolerance of K type thermocouple wire itself is not included in the listed accuracy.

<sup>2</sup> Assume the clamp meter interior and the ambient temperature have reached equilibrium state (Both temperatures are the same).

**Non-Contact Voltage (NCV) Detection**

Range	Frequency
80 to 600V (one segment of bar “-“ to four segments of bars “- - - -“)	50 / 60Hz

Audible beep tones proportional to field strength.

Detection antenna: inside the stationary jaw.

**Auto-power-off : 15 minutes** (LCD displays a ☹ symbol)

**Design Specifications:**

- Conductor Size : 2.17” / 55mm (approx.)
- Battery Type : 9V Battery
- Display : 3 3/4 LCD ( 3999 Counts) with 40 seg. bargraph
- Range Selection : Auto and Manual
- Overload Indication : OL
- Power Consumption : without backlight 17mA (Approx.)
- Low battery Indication : Battery symbol flashes
- Sampling Time : 3 times/sec. (display); 30 times/sec. (bargraph)
- Operating Temperature : -10°C to 50°C
- Operating Humidity : less than 85% relative
- Storage Temperature : -20°C to 60°C
- Storage Humidity : less than 75% relative
- Altitude : up to 2000M
- Dimension : 271mm (L) x 112mm (W) x 46mm (H) ; 10.7" (L) x 4.4" (W) x 1.8" (H)
- Weight : 675g (battery included)
- Accessories : Test leads x 1 set; Carrying bag x 1; Users manual x 1; 9V Battery x 1  
K-type thermocouples x 1; Adapter (for K-type thermocouples) x 1

