

VOLTCRAFT

VOLTCRAFT - RELIABLE AND PRECISE. SINCE 1982.

For more than 40 years, our product range has been dynamically adapting to the constant changes in the industry. We commit to offering first-class quality to our customers while delivering an excellent cost-performance ratio. This philosophy remains the cornerstone of Voltcraft's success.

VC-1120 CLAMP METER + OSCILLOSCOPE



Item no. 3431309

FEATURES

- 20,000 count true RMS auto-ranging clamp meter //
- 3-in-1 oscilloscope: AC/DC clamp meter + Recorder function + Oscilloscope function //
- Measures both current and voltage wave form simultaneously //
- Mobile phone remote control function //
- Bluetooth communication //
- Full touch-key operation //
- 7.11 cm (2.8") IPS LCD //

PACKAGE CONTENTS

- Clamp meter //
- Test leads (pair) //
- USB cable //
- Carrying bag //
- Operating instructions



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TECHNICAL DATA

Function		Measurement Range	Resolution	Accuracy	
DC Voltage (V)	mV	20.000mV	0.001mV	±(0.15%+30dig)	
		200.00mV	0.01mV	±(0.15%+10dig)	
	V	2.0000V	0.0001V	±(0.15%+8dig)	
		20.000V	0.001V		
		200.00V	0.01V		
		1000.0V	0.1V	±(0.22%+8dig)	
AC Voltage (V)	mV	200.00mV	0.01 mV	VRMS Freq range: 40Hz-1000Hz	±(0.9%+14dig)
	V	2.0000V	0.0001V		
		20.000V	0.001V		
		200.00V	0.01V		
		1000.0V	0.1V		± (1.2%+14dig)
DC Current (A)	A	20.00A	0.01A	±(2.9%+14dig)	
		200.0A	0.1A	±(2.9%+8dig)	
		600A	1A		
AC Current (A)	A	20.00A	0.01A	VRMS	±(4.3% + 14dig)
		200.0A	0.1A	Freq range: 40Hz-1000Hz	±(3.6% + 7dig)
		600A	1A		
Inrush Current(A)	A	20.00A	0.01A	VRMS	±(15%+14dig)
		200.0A	0.1A	Freq range: 40Hz-1000Hz	
		600A	1A		
NCV		Support			
Resistance(Ω)		200.00Ω	0.01Ω	±(1.2%+14dig)	
		2.0000kΩ	0.0001kΩ	±(0.5%+14dig)	
		20.000kΩ	0.001kΩ		
		200.00kΩ	0.01kΩ		
		2.0000MΩ	0.0001MΩ		
		20.000MΩ	0.001MΩ	±(0.8%+8dig)	
		100.00MΩ	0.01MΩ	±(7.2%+14dig)	

Capacitance(F)	2.000nF	0.001nF	±(7.2%+14dig)
	20.00nF	0.01nF	±(4.3%+14dig)
	200.0nF	0.1nF	
	2.000μF	0.001μF	
	20.00μF	0.01μF	
	200.0μF	0.1μF	
	2000μF	1μF	
	20.00mF ^[1]	0.01mF	
Frequency ^[2](Hz)	200.00Hz	0.01Hz	±(0.15%+8dig)
	2.0000kHz	0.0001kHz	
	20.000kHz	0.001kHz	
	200.00kHz	0.01kHz	
	2.0000MHz	0.0001MHz	
	20.000MHz	0.001MHz	
Duty Cycle ^[3](%)	0.1%-99.9% (Typical: V _{rms} =1 V, f=100Hz)	0.10%	±(1.7%+5dig)
	0.1%-99.9% (≥1 kHz)		±(3.6%+14dig)
Diode	3.0000V	0.0001V	Open circuit voltage 3.2V
On-Off	0~200.0Ω	0.1Ω	Buzzer limit <u>50Ω</u> : the measurement value is displayed from 0 to 200.0Ω, and "OL" is displayed if the value exceeds.

[1] When measuring capacitance, for the 20.00mF range, the measuring duration should be over 30 seconds.

[2] When measuring frequency, the typical waveform is Square or Sine. The signal meets the following conditions:

- Frequency: 1 Hz – 20 MHz

- Amplitude (rms): ≥ 1 V

[3] When measuring duty cycle, the typical waveform is Square.

Note: when measuring resistance and capacitance, the influence of the resistance reactance of the pen itself on the measured value should be considered.

Characteristics	Instruction
Analog bandwidth	Voltage: 1MHz Current: 1KHz
Sample mode	Real-time sample
Real-time sampling rate	5.0 MSa/s
Channel	1
Input impedance	$\geq 10\text{ M}\Omega$
Maximum input voltage	Maximum peak voltage 1000V
Maximum sample current	Maximum peak current 600A
Scan speed	2.5 us/div - 10 s/div
Time base accuracy	$\pm(0.01\% + 0.1\text{ div})$
Sensitivity	30 mV/div - 500 V/div
Displacement range	± 3 grid
Sensitivity accuracy	$\pm(5\% + 0.2\text{ div})$
Measurement value	Rms, Freq, Max, Min, PK-PK, Avg
Trigger mode	Auto
Trigger type	Rise、Fall
Bluetooth communication	A smart phone can be used to view the measurement data of the multimeter on the mobile phone side, perform remote control, display data charts, and store the measurement data in CSV format.
Automatic shutdown	When all functions are not used, the meter will automatically shut down in about 10 minutes.(the default is 10 minutes of automatic shutdown when starting, which can be canceled)
True effective value	√
Display mode	DMM or OSC
Return zero	√

measurement	
Input protection	√
Digital hold	√
Power	Single section 18650 3.7V
Low battery display	When the power is low, there will be a low power window, and wait for a period of time to shut down automatically.
Backlight function	√
LCD Size	2.8 inch
Weight	Approx. 0.34kg
Dimension	233mm(L) x 94.5mm(W) x 37.8mm(D)

Interval Period of Adjustment:
One year is recommended for the calibration interval period.
Note: The signal is within 5dB attenuation with an analog bandwidth of up to 1MHz.