VOLTCRAFT

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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-44

DIGITAL MULTIMETER + OSCILLOSCOPE

CE

Item no. 3431311

Two-in-one hand-held multimeter with basic oscilloscope

FEATURES

CAT III 1000 V // DMM display: 20000 counts //
True RMS // Waveform automatic measurement

TECHNICAL DATA

Standard conditions:

- The environment temperature is +18 to +28 °C,the relative humidity is less than 80%.

Note:

- When measuring AC voltage, accuracy guarantee range is 10% to 100% of the range.
- When measuring DC voltage, AC/DC current or capacitance, accuracy guarantee range is 5% to 100% of the range.

General

Item	Description
Measurement category	CAT III 1000 V
Sleep Mode	Yes
Low battery indication	Yes
Backlight	Yes
Input Protection	Yes
Input Impedance	≥ 10 MΩ
Battery	18650 3.7 V Single
Display	71.12 mm (2.8 inch) IPS:320 x 240 resolution
Weight	approx. 0.33 kg (without battery)
Dimensions (W x H x D)	93 x 188 x 41.5 mm
Working temperature	0 to +40 °C
Storage temperature	-10 to +60 °C
Relative Humidity	≤ 80%
Altitude	Operating: 3,000 meters Non-operating: 15,000 meters
Calibration	Without certificate

Multimeter

Function	Unit	Measurement Range	Resolution/Frequency Range	Accuracy ± (% of reading + LSB)
DC Voltage	mV	20.000 mV	0.001 mV	±(0.15%+30dig)
DC Voltage	mV	200.00 mV	0.01 mV	±(0.15%+10dig)
DC Voltage	V	2.0000 V	0.1 mV	±(0.15%+8dig)
DC Voltage	V	20.000 V	1 mV	±(0.15%+8dig)
DC Voltage	V	200.00 V	10 mV	±(0.15%+8dig)
DC Voltage	V	1000.0 V	0.1 V	±(0.22%+8dig)
AC Voltage	VRMS Frequency range: 40 Hz - 1000 Hz			
AC Voltage	mV	20.000 mV	0.001 mV	±(0.9%+14dig)
AC Voltage	mV	200.00 mV	0.01 mV	±(0.9%+14dig)
AC Voltage	V	2.0000 V	0.1 mV	±(0.9%+14dig)
AC Voltage	V	20.000 V	1 mV	±(0.9%+14dig)
AC Voltage	V	200.00 V	10 mV	±(0.9%+14dig)
AC Voltage	V	750.0 V	0.1 V	±(1.2%+14dig)
DC Current	µA	200.00 µA	0.01 µA	±(0.9%+14dig)
DC Current	µA	2000.0 µA	0.1 µA	±(0.8%+14dig)
DC Current	mA	20.000 mA	1 µA	±(0.9%+14dig)
DC Current	mA	200.00 mA	10 µA	±(0.8%+14dig)
DC Current	A	2.0000 A	100 µA	±(1.5%+14dig)
DC Current	A	10.000 A [1]	1 mA	±(2.9%+14dig)
AC Current	VRMS Frequency range: 40 Hz - 1000 Hz			
AC Current	µA	200.00 µA	0.01 µA	±(1.2%+14dig)
AC Current	µA	2000.0 µA	0.1 µA	±(1.2%+14dig)
AC Current	mA	20.000 mA	1 µA	±(1.2%+14dig)

Function	Unit	Measurement Range	Resolution/Frequency Range	Accuracy ± (% of reading + LSB)
AC Current	mA	200.00 mA	10 µA	±(1.2%+14dig)
AC Current	A	2.0000 A	100 µA	±(2.2%+14dig)
AC Current	A	10.000 A [1]	1 mA	±(3.6%+14dig)
Resistance	Ω	200.00 Ω	0.01 Ω	±(1.2%+14dig)
Resistance	kΩ	2.0000 kΩ	0.1 Ω	±(0.5%+8dig)
Resistance	kΩ	20.000 kΩ	1 Ω	±(0.5%+8dig)
Resistance	kΩ	200.00 kΩ	10 Ω	±(0.5%+8dig)
Resistance	MΩ	2.0000 MΩ	100 Ω	±(0.5%+8dig)
Resistance	MΩ	20.000 MΩ	1 kΩ	±(0.8%+8dig)
Resistance	MΩ	100.00 MΩ	10 kΩ	±(7.2%+14dig)
Capacitance	nF	2.000 nF	1 pF	±(7.2%+14dig)
Capacitance	nF	20.00 nF	10 pF	±(4.3%+14dig)
Capacitance	nF	200.0 nF	100 pF	±(4.3%+14dig)
Capacitance	µF	2.000 µF	1 nF	±(4.3%+14dig)
Capacitance	µF	20.00 µF	10 nF	±(4.3%+14dig)
Capacitance	µF	200.0 µF	100 nF	±(4.3%+14dig)
Capacitance	mF	2.000 mF	1 µF	±(4.3%+14dig)
Capacitance	mF	20.00 mF [2]	10 µF	±(4.3%+14dig)
Frequency [3]	Hz	200.00 Hz	0.01 Hz	±(0.15%+8dig)
Frequency [3]	kHz	2.0000 kHz	0.1 Hz	±(0.15%+8dig)
Frequency [3]	kHz	20.000 kHz	1 Hz	±(0.15%+8dig)
Frequency [3]	kHz	200.00 kHz	10 Hz	±(0.15%+8dig)
Frequency [3]	MHz	2.0000 MHz	0.1 kHz	±(0.15%+8dig)
Frequency [3]	MHz	20.000 MHz	1 kHz	±(0.15%+8dig)
Duty Cycle	%	0.1 % - 99.9 % (Typical: Vrms=1 V, f=100Hz)	0.1 %	±(1.7%+5dig)
Duty Cycle	%	0.1 % - 99.9 % (≥ 1 kHz)	0.1 %	±(3.6%+14dig)
Diode	V	3.0000 V	0.0001 V	±(1.5%+14dig)
Continuity	Ω	1000.0 Ω	0.1 Ω	
Maximum Reading	20000			

[1] When measuring current, for 10A the measuring duration should not be over 2 minutes within 10 minutes, and in this 10 minutes, no other current should flow through except within the measuring duration.
[2] When measuring capacitance, for the 20.00mF range, the measuring duration should be over 30 seconds.
[3] When measuring frequency, the typical waveform is Square or Sine. The signal meets the following conditions:

Frequency	Amplitude(rms)
1 Hz – 20 MHz	≥ 1 V

[4] 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.

Oscilloscope

Item	Description
Analog bandwidth	1 MHz (only ACV scale)
Maximum sample	5.0 MSa/s
Channel	1
Input impedance	approximately 10 MΩ
Time base range	2.5 µs ~ 10 s/grid
Time base accuracy	±(0.01% + 0.1div)
Voltage vertical sensitivity range	30 mV ~ 500 V/grid
Current vertical sensitivity range	100 µA ~ 5 A/grid
Vertical amplitude accuracy	±(5% + 0.2div)
Maximum voltage limit	1000 V DC+AC Peak value
Maximum current limit	15 A DC+AC Peak value
Trigger mode	Auto/Normal/Single
Autoset	Time base/Vertical amplitude/Trigger value
Trigger edge	Rise edge/Fall edge
Measurement function	Vmax,Vmin,Vpp,Vavg,Vrms,Freq

Note: The signal is within 5 dB attenuation with an analog bandwidth of up to 1 MHz.

PACKAGE CONTENTS

Meter // Test leads (pair) // USB cable // Carrying bag // Operating instructions