VOLTCRAFT®

VOLTCRAFT® - TOP PERFORMANCE IN EVERY WAY

“For more than 25 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.”

VC830

DIGITAL MULTIMETER

CE

VERSION 04/10

Nº 12 46 01

Robust, reliable, practical, ergonomically designed, safe – these are the attributes which describe this professional multimeter. This multimeter sets benchmarks with its safety features. Thanks to the patented housing design, the housing can be opened for battery and/or fuse replacements only if the device has been disconnected from all measurement leads. At input voltages › 30 V the display will show a warning icon. Its unique safety concept is rounded out by the robust housing with sprayed on soft rubber cast protection, the 1000 V high-braking-capacity fuses, the warning sound when measurement leads are incorrectly connected and the impedance switching to avoid incorrect measurements due to stray voltages.

HIGHLIGHTS

Standard measurement ranges
V, A, Ω, Frequency, Capacitance //

Automatic range selection (Auto Range) //

Impedance switching to avoid stray voltages //

Diode test //

Acoustic continuity checker //

Low-bat function //

Data hold //

REL //

Duty cycle //

Optical interface //

Backlight //

GENERAL SPECIFICATIONS

SYMBOL: 6000 counts **MEASURING RATE:** Approx. 3 measuring operations/second **MEASURING LINE LENGTH:** Approx. 90 cm each **WORKING CONDITIONS:** 0 to 30°C (<75 %rF), 30 to 40°C (<50 %rF) **OPERATING ALTITUDE:** max. 2,000 m **STORAGE TEMPERATURE:** -10°C to +50°C **BASIC ACCURACY:** ± 5 % **VOLTAGE SUPPLY:** 9 V block battery **OVER-VOLTAGE CATEGORY:** CAT III 1000 V, CAT IV 600 V, contamination degree 2 **WEIGHT:** Approx. 380 g **DIMENSIONS (W X H X D):** 185 x 91 x 43 (mm)

TECHNICAL DATA

Functions	Range	Resolution	Accuracy ±(a% reading + b digits)	Overload protection
DCV	600 mV	0.1 mV	±(0.5 % + 3)	1000 V Impedance: 10 MΩ
	6 V / 60 V / 600 V	1 mV / 10 mV / 100 mV	±(0.5 % + 2)	
	1000 V	1 V	±(0.8 % + 3)	
ACV[1]	6 V / 60 V / 600 V	1 mV / 10 mV / 100 mV	±(0.8 % + 3)	Frequency range 45 – 400 Hz; Overload protection 750 V.
	750 V	1 V	±(1.0 % + 5)	
DCA	600 µA / 6 mA / 60 mA / 600 mA	0.1 µA / 1 µA / 10 µA/ 100 µA	±(0.8 % + 3)	Fuse, measuring time limit › 5 A: max. 10 s with 10 min break.
	6 A / 10 A	1 mA / 10 mA	±(1.2 % + 5)	
ACA[2]	600 µA / 6 mA	0.1 µA / 1 µA	±(1.0 % + 2)	Fuse, measuring time limit › 5 A: max. 10 s with 10 min break. Frequency range 45 – 400 Hz; Overload protection 750 V.
	60 mA / 600 mA	10 µA / 100 µA	±(1.2 % + 3)	
	6 A / 10 A	1 mA / 10 mA	±(1.5 % + 5)	
Ω	600 Ω	0.1 Ω	±(0.8 % + 3) w/ REL function	Overload protection 1000 V; Measuring voltage: Approx. 0.4 V.
	6 kΩ / 60 kΩ / 600 kΩ	1 Ω / 10 Ω / 100 Ω	±(0.8 % + 2)	
	6 MΩ	1 kΩ	±(1.2 % + 2) ≥ 20 MΩ: ±(1.5 % + 5)	
	60 MΩ	10 kΩ		
Capacity	40 nF	0.01 nF	±(3.0% + 5) with RELfunction	Overload protection 1000 V
	400 nF	0.1 nF		
	4 µF	1 nF		
	40 µF	10 nF	±(3.0 % + 5)	
	400 µF	100 nF	±(4.0 % + 5)	
	4000 µF	1 µF	Not Specified	
Frequency / Duty Cycle[3]	10 Hz - 10 MHz	0.001 Hz – 0.01 MHz	±(0.1 % + 3)	Overload protection 750 V
	0.1 – 99.9 %	0.1 %	Not specified	
Diode test	Approx. 3.7 V	0.001 V	NA	Overload protection 1000 V
Acoustic continuity tester	<30 Ω continuous sound, test voltage: approx. 0.65 V/DC;.			Overload protection 1000 V

1. Effective average (RMS) at sinus voltage. Permissible display error with an open measuring input: 2 counts. Perissible display error with a short-circuited measuring input: 20 counts.
2. Effective average (RMS) at sinus voltage
3. Sensitivity: 200 mV; Amplitude max. 5 Veff (>5 V with adjustable impedance)

PACKAGE CONTENT

Unit // Batteries // Operating instructions

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