



# **VOLTCRAFT®**

**VOLTCRAFT® - TOP PERFORMANCE IN EVERY WAY**

“Since 1982, 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.”

## **VC175** **DIGITAL MULTIMETER**

**N° 124457**

**CE**

VERSION 12/21

Robust digital multimeter featuring professional-class specifications and automatic range selection. The VC175 series is designed to cover all DIY measurement tasks. Professional jobs up to 600 V can be carried out, too.

## **HIGHLIGHTS**

**CAT III 600 V //**

**4000 counts //**

**Auto range //**

**Capacitance measurement //**

**Duty cycle //**

**Diode test //**

**Acoustic Continuity Tester //**

**Contactless AC voltage tester //**

**Auto power-off //**

**Rugged enclosure with soft rubber cover //**



# TECHNICAL DATA

Operating voltage	9 V block battery
Display	3999 count
Measuring frequency	approx. 2-3 measuring operations/second
Measuring lead length	approx. .75 cm
Measuring impedance	>10M $\Omega$ (V range)
Operation temperature	0 to +40 °C
Operation humidity	≤75 % (for 0 to +30 °C), ≤50 % (for +30 to +40 °C)
Operating altitude	max. 2000 m
Storage temperature	-10 to +50 °C
Dimensions (W x H x D)	75 x 150 x 38 mm
Weight	approx. 200 g

## DC voltage

Range	Accuracy	Resolution
4000 V	±(0.8 % reading +8 digits)	1 V
40 mV		10 mV
400 V		100 V
600 V		1 V
Overload protection: 600 V Input impedance: approx. 4.5 M $\Omega$ Frequency response: 45 - 400 Hz Display: Sine wave valid value (average value response)		

## AC voltage

Range	Accuracy	Resolution
400 mV	±(2.0 % reading +10 digits)	0.1 mV
4 mV	±(1.6 % reading +4 digits)	1 mV
40 V		0.01 V
400 V		0.1 V
600 V		1 V
Overload protection: 600 V Input impedance: approx. 4.5 M $\Omega$ Frequency response: 45 - 400 Hz Display: Sine wave valid value (average value response)		

## DC current

Range	Accuracy	Resolution
400 $\mu$ A	±(1.3 % reading +3 digits)	0.1 $\mu$ A
4000 $\mu$ A		1 $\mu$ A
40 mA	±(1.6 % reading +2 digits)	10 $\mu$ A
400 mA		0.1 mA
4000 A	±(2.0 % reading +10 digits)	1 mA
10 A		10. mA
Overload protection: mA $\mu$ A range: F1 fuse 6 x 32 mm F 0.5 A H 600 V (CE) Item no.: 702632 10A range: F2 fuse 6 x 25 mm F 10 A H 600 V (CE) Item no.: 700161 Measuring operations of >5 A may only be performed for at most 10 seconds with a subsequent measuring pause of 15 minutes.		

**AC current**

Range	Accuracy	Resolution
400 $\mu$ A	$\pm(1.6\% \text{ reading} + 5 \text{ digits})$	0.1 $\mu$ A
4000 $\mu$ A		1 $\mu$ A
40 mA	$\pm(2.0\% \text{ reading} + 8 \text{ digits})$	10 $\mu$ A
400 mA		0.1 mA
4000 A	$\pm(2.6\% \text{ reading} + 4 \text{ digits})$	1 mA
10 A		10. mA
Overload protection: mA $\mu$ A range: F1 fuse 6 x 32 mm F 0.5 A H 600 V (CE) Item no.: 702632 10A range: F2 fuse 6 x 25 mm F 10 A H 600 V (CE) Item no.: 700161 Measuring operations of >5 A may only be performed for at most 10 seconds with a subsequent measuring pause of 15 minutes Frequency response: 45 – 400 Hz Display: Sine wave valid value (average value response)		

**Resistance**

Range	Accuracy	Resolution
400 $\Omega$	$\pm(1.6\% \text{ reading} + 3 \text{ digits})$	0.1 $\Omega$
4000 $\Omega$		1 $\Omega$
40 k $\Omega$	$\pm(1.3\% \text{ reading} + 3 \text{ digits})$	10 $\Omega$
400 k $\Omega$		100 $\Omega$
4 M $\Omega$	$\pm(1.5\% \text{ reading} + 10 \text{ digits})$	1 k $\Omega$
40 M $\Omega$	$\pm(2.0\% \text{ reading} + 8 \text{ digits})$	10 k $\Omega$
Overload protection: 600 V		

**Diode / continuity test**

Acoustic continuity tester: $\leq 10 \Omega$ permanent sound
Acoustic continuity tester resolution: 0.1 $\Omega$
Diode test voltage: 1.5 V
Overload protection: 600 V

**Non-contact voltage test**

Target voltage: 230 V/AC
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**Capacitance**

Range	Accuracy	Resolution
40 nF	Under REL status: $\pm(4\% \text{ reading} + 10 \text{ digits})$	10 pF
400 nF	Under REL status:	100 pF
4 $\mu$ F	$\pm(4\% \text{ reading} + 3 \text{ digits})$	1 nF
40 $\mu$ F	$\pm(4\% \text{ reading} + 3 \text{ digits})$	100 $\Omega$
100 $\mu$ F	$\pm(5\% \text{ reading} + 10 \text{ digits})$	100 nF
Overload protection: 600 V		

## Frequency / Duty Ratio

Range	Accuracy	Resolution
10 Hz - 10 MHz	$\pm(1.6 \% \text{ reading} + 3 \text{ digits})$	0.001 Hz - 0.001 MHz
0.1 - 99.9 %	$\pm(0.7 \% \text{ reading} + 4 \text{ digits})$	0.1 %

Overload protection: 600 V  
Input amplitude a: (DC level is zero)  
 $300 \text{ mV} \leq a \leq 30 \text{ Vrms}$  (for 10 Hz - 1 MHz)  
 $600 \text{ mV} \leq a \leq 30 \text{ Vrms}$  (for >1 MHz - 10 MHz)

# PACKAGE CONTENT

Digital multimeter / Measuring leads // Operating instructions

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