



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.”

VC150-1 **DIGITAL MULTIMETER**

Nº 1090520

CE

VERSION 09/14

Robust upcoming unit with manual Measuring range selection. VOLTCRAFT offers something for every user and scope of the appropriate device. From beginners up to the professional model, always on the current state of the art and the usual price. The VC100 series is designed for all measurement tasks in the household and the leisure sector. Even professional tasks can be performed up to 250 V.

HIGHLIGHTS

Temperature Measurement //

CAT III 250 V //

2000 Counts //

Sturdy starting device with manual selection of measurement range //

Diode test //

Acoustic continuity checker //

Contactless AC voltage checker //
hFE transistor testing

(with optional adapter) //

Hold function //

Low battery display //



TECHNICAL DATA

Display	2000 counts (4000 counts with the VC170-1)
Measuring frequency	approx. 2-3 measuring operations/second
Measuring lead length	about 75 cm each
Measuring impedance	>10M Ω (V range)
Operating voltage	9 V block battery
Working conditions	0°C to 40°C max. 75% rF, non-condensing
Operating altitude	max. 2,000 m
Storage temperature	-10°C to +50°C
Weight	ca. 200 g
Dimensions (LxWxH)	137 x 72 x 35 (mm)
Measuring category	CAT III 250 V
Degree of contamination	2

Direct voltage, overload protection 250 V

Range VC130-1/150-1	Accuracy	Resolution	Range VC170-1	Accuracy	Resolution
200 mV	$\pm(0.5\% + 8)$	0.1 mV	400 mV*	$\pm(0.8\% + 8)$	0.1 mV
2000 mV		1 mV	4000 mV	$\pm(0.8\% + 8)$	1 mV
20 V		0.01 V	40 V		0.01 V
200 V		0.1 V	250 V		0.1 V
250 V	$\pm(0.8\% + 8)$	1 V	* With the VC170-1, the 400 mV measuring range is only available via the manual measuring range selection.		

AC voltage (40 – 400 Hz), overload protection 250 V, Average recording for sinus signal.

Range VC130-1/150-1	Accuracy	Resolution	Range VC170-1	Accuracy	Resolution
200 V	$\pm(1.5\% + 8)$	0.1 V	400 mV*	$\pm(2.0\% + 10)$	0.1 mV
250 V		1 V	4,000 mV	$\pm(1.6\% + 4)$	1 mV
			40 V		0.01 V
			250 V		0.1 V
			* With the VC170-1, the 400 mV measuring range is only available via the manual measuring range selection.		

DC current, overload protection 1A/250V + 10 A/250 V

Range VC130-1/150-1	Accuracy	Resolution	Range VC170-1	Accuracy	Resolution
200 μ A*	$\pm(1.3\% + 2)$	0.1 μ A	400 μ A	$\pm(1.3\% + 2)$	0.1 μ A
2000 μ A		1 μ A	4,000 μ A		1 μ A
20 mA		0.01 mA	40 mA	$\pm(1.6\% + 2)$	0.01 mA
200 mA	$\pm(1.5\% + 8)$	0.1 mA	400 mA		0.1 mA
10 A	$\pm(2.5\% + 10)$	0.01 A	4 A	$\pm(2.0\% + 10)$	0.01 A
* only with the VC130-1			10 A		0.1 A

AC current (only with VC170-1), overload protection 1A/250V + 10 A/250 V, Average recording for sinus signal.

Range (40 - 400 Hz)	Accuracy	Resolution
400 µA	±(1.6 % + 5)	0.1 µA
4,000 µA		1 µA
40 mA	±(2.0 % + 8)	0.01 mA
400 mA		0.1 mA
4 A	±(2.6 % + 4)	0.001 A
10 A		0.01 A

Resistance, overload protection 250 V, test voltage ca. 0.5 V

Range VC130-1/150-1	Accuracy	Resolution	Range VC170-1	Accuracy	Resolution
200 Ω	±(1.0 % + 10)	0.1 Ω	400 Ω	±(1.6 % + 3)	0,1 Ω
2000 Ω		1 Ω	4 kΩ		0.001 kΩ
20 kΩ		0.01 kΩ	40 kΩ		0.01 kΩ
200 kΩ	±(1.3 % + 7)	0.1 kΩ	400 kΩ	±(2.0 % + 8)	0.1 kΩ
20 MΩ		0.01 MΩ	4 / 40 MΩ		0.001 / 0.01 MΩ

Temperature (only VC150-1)

Range	Accuracy	Resolution
-40 to 0 °C	±(10.4 % + 7)	1 °C
>0 to 400 °C	±(3.3 % + 4)	
>400 to 1,000 °C	±(3.9 % + 4)	

Frequency / duty cycle (only VC170-1)

Range	Accuracy	Resolution
10 Hz - 10 MHz max. 10 V _{rms}	±(0.7 % + 4)	0.01 Hz - 0.01 MHz Sensitivity: < 100 kHz = 300 mV > 100 kHz = 600 mV
0.1 - 99.9 %		0.1%
Acoustic continuity tester Diode test test voltage Diode overload protection/continuity tester: Transistor test "hFE" NCV voltage test	<10 Ω Permanent sound U _o 3.0 V 250 V 0 - 1000Ω, test voltage U _{ce} 3 V, test current I _{bo} 10 µA 230 V/AC	

PACKAGE CONTENT

Digital multimeter // Measurement lines // K type thermosensor // Battery // Operating instructions

This data sheet is published by Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau (www.conrad.com).

All rights including translation reserved. Reproduction by any method, e.g. photocopy, microfilming, or the capture in electronic data processing systems require the prior written approval by the editor. Reprinting, also in part, is prohibited. This data sheet represents the technical status at the time of printing.