

VOLTCRAFT

VOLTCRAFT – TOP PERFORMANCE IN EVERY WAY

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.

MT-52 5-IN-1 MULTI-DMM



Item no. 2633259

The all-round multi-meter is an indispensable and versatile aid for hobbies, crafts and the household. All sensors except for the temperature measurement are fully integrated, making operation quick and easy.

FEATURES

Measuring resistance up to 40 M Ω // Measuring AC and DC voltages up to 600 V // Measuring AC and DC current up to 10 A // K-type sensor from -20 to +1300 °C

TECHNICAL DATA

Display	4000 counts
Measuring rate	Approx. 3 measuring operations/second
Measuring line length	Approx. 80 cm each
Measuring impedance	>10 M Ω (V range)
Operating voltage	9 V block battery
Working conditions	0 to +40 °C, <70 % RH (non-condensing)
Operating altitude	Max. 3,000 m
Storage conditions	-10 to +60 °C, <80 % RH (non-condensing)
Weight	Approx. 335 g
Dimensions (L x W x H)	170 x 78 x 48 mm
Over-voltage category	CAT III 600 V, Impurity level 2



a) Direct voltage (DC)

Range	Resolution	Accuracy
400 mV	0.1 mV	±(1.2% + 5)
4 V	0.001 V	
40 V	0.01 V	
400 V	0.1 V	±(1.8% + 4)
600 V	1 V	
Other Features	Overload protection 600 V	

b) Alternate voltage (AC)

Range	Resolution	Accuracy
400 mV	0.1 mV	±(1.8% + 20)
4 V	0.001 V	±(1.2% + 5)
40 V	0.01 V	
400 V	0.1 V	±(1.8% + 4)
600 V	1 V	±(2.2% + 5)
Other Features	Frequency range 50 – 400 Hz; Effective average value with sinus voltage; Overload protection 600 V 400 mV area only through manual area selection!	

c) Direct current (DC)

Range	Resolution	Accuracy
400 µA	0.1 µA	±(1.2% + 2)
4000 µA	1 µA	
40 mA	0.01 mA	
400 mA	0.1 mA	±(1.5% + 2)
10 A	0.01 A	±(2.2% + 5)
Other Features	Overload protection: Fuses; 500 mA 660 V, 10 A 600 V ; Measuring time limit > 5 A: max. 30 s with 15 min break	

d) Alternate current (AC)

Range	Resolution	Accuracy
400 µA	0.1 µA	±(1.5% + 3)
4000 µA	1 µA	
40 mA	0.01 mA	
400 mA	0.1 mA	±(1.8% + 3)
10 A	0.01 A	±(2.2% + 6)
Other Features	Overload protection: Fuses; 500 mA 660 V, 10 A 600 V ; Measuring time limit > 5 A: max. 30 s with 15 min break; Frequency range 50 - 400 Hz	

e) Resistance

Range	Resolution	Accuracy
400 Ω	0.1 Ω	±(1.8% + 5)
4 kΩ	0.001 kΩ	±(1.5% + 2)
40 kΩ	0.01 kΩ	
400 kΩ	0.1 kΩ	
4 MΩ	0.001 MΩ	±(2.0% + 2)
40 MΩ	0.01 MΩ	±(2.5% + 2)
Other Features	Overload protection 600 V; Measuring voltage: approx. 0.28 V	

f) Capacity

Range	Resolution	Accuracy
50 nF	0.01 nF	$\pm(5.5\% + 25)$
500 nF	0.1 nF	$\pm(3.5\% + 7)$
5 μ F	0.001 μ F	
50 μ F	0.01 μ F	
100 μ F	0.1 μ F	$\pm(5.0\% + 7)$
Other Features	Overload protection 600 V	

g) Frequency

Range	Resolution	Accuracy
5 Hz	0.001 Hz	$\pm(1.5\% + 3)$
50 Hz	0.01 Hz	
500 Hz	0.1 Hz	
5 kHz	0.001 kHz	
50 kHz	0.01 kHz	
500 kHz	0.1 kHz	
10 MHz	0.01 MHz	$\pm(1.5\% + 4)$
Other Features	Overload protection 600 V; sensitivity: <1 MHz: >0.5 V; >1 MHz: >3 V	

h) Temperature contact sensor type K

Range	Resolution	Accuracy
-20 to +400 °C	0.1 °C	$\pm(3.0\% + 3\text{ °C})$
-20 to +1300 °C	1 °C	

i) Relative temperature and relative air humidity

Range	Resolution	Accuracy
0 to +50 °C	0.1 °C	$\pm(3.0\% + 3)$
33 - 99 % RH	1 % RH	$\pm(3.0\% + 5.5)$

j) Illumination strength

Range	Resolution	Accuracy
4000 lux	1 lux	$\pm(6\% + 15)$
40000 lux	10 lux	$\pm(3.5\% + 10)$
Colour temperature accuracy of 2856 K; repetition accuracy $\pm 2\%$; Temperature stability: $\pm 0.1\%$ per °C; light sensor: Silicon photo diode with spectral filter		

k) Sound level

Range	Resolution	Accuracy
35 - 100 dB	0.1 dB	± 5.5 dB
Accuracy at 94 dB and 1 kHz sinus; frequency range: 30 Hz – 10 kHz; Assessment: Characteristic "C" (linear); time assessment: Fast; Microphone: Condenser microphone		

l) Diode test

Test voltage	Approx. 1.5 V	
Test current	Approx. 1 mA	
Resolution	0.001 V	
Accuracy	$\pm(10\% + 5)$	
Overload protection: 600 V		

m) Acoustic continuity tester

<100 Ω continuous sound, test voltage approx 0.5 V,
overload protection 600 V

n) NCV

Detection range: 200 - 1,000 V/AC

EQUIPMENT

CAT III 600 V // Additional measurement functions for noise level, humidity, temperature and lighting intensity // Extremely robust due to sprayed-on soft rubber protection // Contactless voltage testing // Capacity measurement

PACKAGE CONTENTS

Multimeter // 9 V block battery // Wired temperature sensor (K-type, measuring range -20 to +230 °C) // Safety measuring cable // K-type adapter // Operating instructions

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