



# 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.”

# AT-400 AUTOMOTIVE-DIGITAL-MULTI- METER

CE

VERSION 12/21

Nº 123240

Sturdy digital multimeter with special measurement ranges for car use. Rotational speeds can be measured via an inductive pick up at motors with and without an ignition distributor and the cam dwell can be tested. For temperature measurement, a contact sensor and optionally a contact-free infrared adaptor can be connected. Therefore ideal for rotational or live components.

## HIGHLIGHTS

With measurement functions for car //

Waterproof //

DC/AC voltage //

DC/AC current //

Frequency //

Duty cycle //

RPM //

Resistance //

Continuity/diode //

Capacitance //

Relative value //

Data hold //



# TECHNICAL DATA

Display	LCD, 4000 counts with bargraph
Measuring rate	approx. 2 measuring operations/second
Measuring line length	about 80 cm each
Measuring impedance	>10M $\Omega$ (V range)
Automatic power-off	approx. 30 minutes
Operating voltage	9V (PP3) battery
Operating conditions	0 to 50°C (<70%RH)
Operating altitude	max. 2,000 m
Storage temperature	-20°C to +60°C (<80%RH)
Weight of multimeter	approx. 375 g
Dimensions (L x W x H)	182 x 82 x 55 (mm)
Over-voltage category	CAT IV 600 V, degree of pollution 2
Protection class	IP67, dust and waterproof (with measuring sockets completely sealed)

## Direct voltage

Range	Resolution	Accuracy
400 mV	0.1 mV	$\pm(0.8\% + 3)$
4 V	0.001 V	$\pm(1.5\% + 2)$
40 V	0.01 V	
400 V	0.1 V	
600 V	1 V	$\pm(1.8\% + 2)$
Overload protection: 600 V; impedance 10 M $\Omega$		

## Alternating voltage

Range	Resolution	Accuracy
400 mV	0.1 mV	$\pm(1.5\% + 6)$
4 V	0.001 V	$\pm(1.2\% + 3)$
40 V	0.01 V	$\pm(1.5\% + 3)$
400 V	0.1 V	
600 V	1 V	$\pm(2.0\% + 4)$
Frequency range 50 - 60 Hz; effective average for sinusoidal voltage; overload protection 600 VM impedance 10 MOhm		

## Direct current

Range	Resolution	Accuracy
40 mA	0.01 mA	$\pm(1.5\% + 3)$
400 mA	0.1 mA	
10 A	0.1 A	$\pm(2.5\% + 5)$
Overload protection: 600 V, fuses; test time limit >1 A: max. 30 s with 15 min pause		

## Alternating current

Range	Resolution	Accuracy
40 mA	0.01 mA	$\pm(1.8\% + 5)$
400 mA	0.1 mA	
10 A	0.1 A	$\pm(3.0\% + 7)$
Overload protection: 600 V, fuses; test time limit >1 A: max. 30 s with 15 min pause; frequency range 50 - 60 Hz		

## Resistance

Range	Resolution	Accuracy
400 Ω	0.1 Ω	±(1.5 % + 5)
4 kΩ	0.001 kΩ	±(1.2 % + 2)
40 kΩ	0.01 kΩ	±(1.5 % + 2)
400 kΩ	0.1 kΩ	
4 MΩ	0.001 MΩ	
40 MΩ	0.01 MΩ	±(2.5 % + 3)
Overload protection 600 V		

## Capacity

Range	Resolution	Accuracy
4 nF	0.001 nF	±(6 % + 50)
40 nF	0.01 nF	±(6 % + 8)
400 nF	0.1 nF	±(3.5 % + 5)
4 μF	0.001 μF	
40 μF	0.01 μF	
400 μF	0.1 μF	±(10 % + 10)
4 mF	0.001 mF	
40 mF	0.01 mF	
Overload protection 600 V		

## Frequency

Range	Resolution	Accuracy	Sensitivity
4 kHz	0.001 kHz	±(1.5 % + 4)	>5 Vrms
40 kHz	0.01 kHz		
400 kHz	0.1 kHz		
4 MHz	0.001 MHz	±(2.0 % + 5)	>15 Vrms
40 MHz	0.01 MHz		
Overload protection 600 V, rms = effective value			

## Duty cycle

Range	Resolution	Accuracy	Sensitivity
0.5 - 99.0 %	0.1 %	±(2.2 % + 6)	>5 Vrms
Overload protection 600 V; pulse width: 100 μs - 100 ms; frequency range: 5 Hz - 100 kHz			

## Pulse width

Range	Resolution	Accuracy
1.0 - 20 ms	0.1 ms	±(2,2% + 25)
Overload protection 600 V		

## Diode test

Test voltage	Resolution	Test current
1.5 V	0.001 V	1 mA (typical)
Overload protection 600 V		

# PACKAGE CONTENT

Multimeter // Power cord // 1 kit measurement leads // 1 kit alligator clips // K type thermo couple // Software CD // Operating instructions

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