

# CAPACITANCE METER

Model : DM-9023

*ISO-9001, CE, IEC1010*

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<b>FEATURES</b>	
*	This Digital Capacitance Meter give a direct reading of capacitance on a 3 1/2 digits LCD display. Nine ranges give precision readings from 0.1 pF to 20,000 uF, which includes virtually all capacitors used in electronic engineering labs, production, service shops, and schools. It can be used to check tolerance, sort values, select precision values, measure unmarked capacitors, select matched sets, and measure cable, switch or PCB LAYOUT capacitance. Its battery operation, light weight, and small size make it a truly portable instrument.
*	Large LCD display, clear read-out even in bright conditions.
*	Low power consumption..
*	High accuracy in measuring
*	LSI-circuit use provides high reliability and durability.
*	Uses rotary ranges switch for easy operation.
*	Low battery voltage indicator.
*	Fast sampling rate.

<b>GENERAL SPECIFICATIONS</b>	
Display	18 mm (0.7") LCD (Liquid Crystal Display), Max. indication 1999.
Range	9 Ranges with full scale values from 200 pF to 20,000 uF..
Overload Indication	Indication of " 1"
Zero adjust:	Front panel Adjustment control. This is limited to approx. 20 pF.
Out-of-Range indication	Indication of " 1" .
Sampling rate	0.5 second .
Operating Temperature	0 to 50 °C (32 to 122 °F).
Operating Humidity	Less than 80% RH.
Power Supply	DC 9V battery.
Battery Life	Approximately 200 hours on alkaline or 100 hours on carbon zinc battery with normal usage. (Typical consumption current 3 to 4 mA on 200 pF to 200 uF range).
Dimension	185 x 87 x 39 mm (7.3 x 3.4 x 1.5 inch).
Weight:	290 g/0.64 LB (including battery).

Standard Accessories	Test alligator clips (red & black 1 Pair. Spare Fuse (0.2A) ..... 1 PC. Instruction Manual.....1 PC.
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**ELECTRICAL SPECIFICATION**

Normal range	Max. In-range Display	Resolution	Test Frequency
200 pF	199.9 pF	0.1 pF	800 Hz
2 nF	1.999 nF	1 pF	800 Hz
20 nF	19.99 nF	10 pF	800 Hz
200 nF	199.9 nF	100 pF	800 Hz
2 uF	1.999 uF	1000 pF	800 Hz
20 uF	19.99 uF	0.01 uF	80 Hz
200 uF	199.9 uF	0.1 uF	8 Hz
2,000 uF	1,999 uF	1 uF	8 Hz
20,000 uF	19,990 uF	10 uF	8 Hz

pF = picofarad (  $10^{-12}$  Farad)  
nF = nanofarad (  $10^{-9}$  Farad)  
uF = microfarad (  $10^{-6}$  Farad)

Accuracy (23± 5 °C)	* ± 1 % of full scale 1 d on 200 pF to 2000 uF ranges. * ± 1 % of full scale 1 d on 2,000 uF range. * ± 2 % of full scale 2 d on 20,000 uF ranges.
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Excitation Voltage	2.8 volts peak, maximum. POSITIVE input terminal's voltage is always higher than NEGATIVE terminal.
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Protection	The Meter is protected against damage from charged capacitors (more than DC 50 volt) by the fuse (0.2A).
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