



1-800-547-5740 • Fax: (503) 643-6322
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Introduction

The DCM3 Digital Capacitance Meter offers solid value in an industrial quality meter. The wide range of inputs allows testing from the smallest electronic components to large run/start capacitors. The rugged design with protective boot and auto power off function keep your meter working.

Features

- 0.1 pF to 20 mF (20,000 μF)
- Zero adjustment (±20 pF for compensation of the measuring leads)
- Fuse protected input

Specifications

Auto power off:	After meter operation approx. 10 minutes, auto power off circuit
Test Voltage:	<3.5 V
Input protection:	0.25 A/250 V fast action fuse
Zero adjust limited:	±20 pF approx
Shock proof:	New structure, shock proof from 3 meter drop
Display:	3 1/2 digit liquid crystal display (LCD) with maximum reading of 1999
Polarity:	Automatic, positive implied, negative polarity indication
Overrange:	[1] or [-1] is displayed
Zero:	Automatic
Low battery indication:	The "▢" is displayed when the battery voltage drops below the operating level
Measurement rate:	2.5 times per second
Operation environment:	0°C ~ 60°C at 70% relative humidity
Storage temperature:	-20°C ~ 60°C, 0 to 80% R.H. with battery removed
Accuracy:	Stated accuracy at 23°C ±5°C, < 75% relative humidity
Power:	Single standard 9 volt battery (NEDA 1604 pr JIS 006P)
Battery life:	200 hours typical with carbon-zinc

Dimension:	150 mm (H) x 70 mm (W) x 38 mm (D)
Weight:	Approx. 170g including battery
Accessories:	One pair test leads, 9V battery, operating instructions

Characteristics

Range	Resolution	Accuracy	Test Frequency
200pF	0.1pF	±1%rdg + 3dgt	820Hz
2000pF	1pF		
20nF	10pF		
200nF	100pF		82Hz
2μF	1nF		
20μF	10nF		8.2Hz
200μF	100nF		
2000μF	1μF	2%rdg + 3dgt	
20mF	10μF		4%rdg + 9dgt

Operation



WARNING!

To avoid electrical hazards, discharge the capacitor before measuring.

1. For capacitance measurement less than 200nF, it should make "0-ADJ" for subtract the stray capacitance.
2. Set the range switch to the desired range.
3. Never apply an external voltage to the input terminals. Damage to the meter may result.
4. Observe polarity when measuring polarized capacitors.

Limited Warranty

The DCM3 is warranted to be free from defects in materials and workmanship for a period of one year from the date of purchase. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UEI's option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Batteries and consequential damage resulting from failed batteries are not covered by warranty.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. UEI shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss. A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge. Return the unit postage paid and insured to:

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This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

5. Insert the capacitor leads into the receptacle socket or directly connect the test clip to the capacitor leads as required.
6. Read the capacitance direct from the display

Battery Replacement

Power is supplied by a 9 volt transistor battery. (NEDA 1604, IEC6F22). The "▢" appears on the LCD display when replacement is needed. To replace the battery, remove the two screws from the back of the meter and lift off the front case. Remove the battery from battery contacts.

Fuse Replacement

If no current measurements are possible, check for a blown overload protection fuse. There is a fuse; F1 for the "Cx +" jack. For access to fuses, remove the two screws from the back of the meter and lift off the front case. Replace F1 only with the original type 0.25A/250V fuse.