Digital Multimeter

Overload Protection

RF Shielded

Tilt Stand

Lo Power Ohms

 Polarity Indicator Overrange Indicator

Low Battery Indicator

• 1-Year Limited Warranty

DM-38A

Multifunction DMM Heavy Duty • 3 3/4 Digit, 0.5" H • Peak Data Hold

- Frequency Counter
- Capacitance Test
- Logic Detector
- 20A AC/DC
- 0.5% Basic DC Accuracy
- 40MΩ Full Scale
- Transistor hFF Test
- Diode Test
- Audible Continuity Test
- 20MΩ Input Z

Battery, Test Leads and Operating Instructions Included

SPECIFICATIONS:

General

Display: 3 3/4 Digit LCD, 0.5" high, with polarity indicator (4,000 count)

Overrange Indication: "OL" is displayed Measurement Rate: 3 times per second

Operating Environment: 0°C to 50°C, <70% relative humidity

Storage Environment: -20°C to 60°C, <80% relative humidity with battery removed Power: 9V carbon zinc battery (NEDA 1604)

DC Voltage

Range	Resolution	Accuracy
400mV	100µV	±0.5% of rdg ±1D
4V	1mV	±0.5% of rdg ±1D
40V	10mV	±0.5% of rdg ±1D
400V	100mV	±0.5% of rdg ±1D
1000V	1V	±0.5% of rdg ±1D

Input Impedance: $20M\Omega$ on all ranges

Overload Protection: 500V DC/350V AC for 15 sec. on 400mV range; 1,100V DC/800V AC on all other ranges

DC Current

Range	Resolution	Accuracy
40mA	10µA	$\pm 1\%$ of rdg $\pm 1D$
400mA	100µA	$\pm 1\%$ of rdg $\pm 1D$
20A	10mA	±2% of rdg ±3D

Overload Protection: mA input 0.8A/250V fuse; 20A input (unfused), up to 20A for 15 seconds

AC Voltage

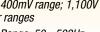
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Range	Resolution	Accuracy
400mV	100µV	$\pm 1\%$ of rdg $\pm 4D$
4V	1mV	$\pm 1\%$ of rdg $\pm 4D$
40V	10mV	±1% of rdg ±4D
400V	100mV	$\pm 1\%$ of rdg $\pm 4D$
750V	1V	$\pm 1.5\%$ of rdg $\pm 4D$

Input Impedance: $20M\Omega$ on all ranges

Overload Protection: 500V DC/350V AC for 15 sec. on 400mV range; 1,100V DC/800V AC on all other ranges

Frequency Range: 50 - 500Hz





Battery Life: 150 hours typical with carbon

zinc cells Low Battery Indicator: Display indicates "B" Dimensions, Weight: 3.3" wide x 6.3" long x 1" thick (84mm x 160mm x 25mm), net weight 9oz. (250g)

Peak Data Hold: When the Peak Hold function is engaged, the maximum reading is shown on the display until a higher reading is recorded or power to the meter is removed

AC Current

Range	Resolution	Accuracy
40mA	10µA	$\pm 1.2\%$ of rdg $\pm 4D$
400mA	100µA	$\pm 1.2\%$ of rdg $\pm 4D$
20A	10mA	$\pm 2\%$ of rdg $\pm 4D$
Overload	Protection mA	input 0 8A/250V fuse

20A input (unfused), up to 20A for 15 seconds

Resistance

Range	Resolution	Accuracy
400Ω	0.1Ω	$\pm 1\%$ of rdg $\pm 3D$
4KΩ	1Ω	$\pm 0.8\%$ of rdg $\pm 1D$
40KΩ	1 <i>0</i> Ω	$\pm 0.8\%$ of rdg $\pm 1D$
400KΩ	1 <i>00</i> Ω	$\pm 0.8\%$ of rdg $\pm 1D$
$4M\Omega$	1 <i>Κ</i> Ω	$\pm 0.8\%$ of rdg $\pm 1D$
$40M\Omega$	10KΩ	$\pm 3\%$ of rdg $\pm 3D$
$400M\Omega$	1 <i>Μ</i> Ω	±5% of rdg -10D, +4D
Overland	Drotootion: 50	OV DC/AC 10 apponda

Overload Protection: 500V DC/AC, 10 seconds

Capacitance

Range	Resolution	Accuracy
4nF	1pF	$\pm 3\%$ of rdg $\pm 10D$
40nF	10pF	±3% of rdg ±10D
400nF	100pF	±3% of rdg ±10D
4μF	1nF	$\pm 3\%$ of rdg $\pm 10D$
40µF	10nF	±3% of rdg ±10D
Test Frequency: 400Hz		
Test Voltage: 50mV		

DCA DCV CON DM 384

Frequency Measurement

Range: 4K to 4MHz (Autorange) Accuracy: $\pm 1\%$ rdg $\pm 2D$ Input Sensitivity: 50mV rms Overload Protection: 500V DC/AC

Logic Measurement

Logic Type: TTL Input Impedance: $120K\Omega \pm 10K$ Logic Thresholds Logic 1: 2.4V, ±0.2V Logic 0: 0.7V, ±0.2V Frequency Response: 20MHz Detestable Pulse Width: 25ns, min. Overload Protection: 50V DC/AC

Continuity Test

Resistance Range: 400Ω Beeper Response: $<50\Omega$ Response Time: <100mSec

Transistor h_{FF} Test (PNP, NPN)

Test Condition: 10µA Base Current @ 2.8V h_{FF} Range: 0 - 1000

Diode Test

Voltage: 3.2V @ 1.6mA Max

