Handheld Digital Multimeters

DMM254

CHARACTERISTICS

**AC Volts**

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mV</td>
<td>0.1 mV</td>
</tr>
<tr>
<td>4 V</td>
<td>1 mV</td>
</tr>
<tr>
<td>40 V</td>
<td>10 mV</td>
</tr>
<tr>
<td>400 V</td>
<td>100 mV</td>
</tr>
<tr>
<td>750 V</td>
<td>1 V</td>
</tr>
</tbody>
</table>

**Accuracy** -
All ranges except 400 mV:
50 Hz to 60 Hz: (0.50% of rdg + 5 cts).
40 Hz to 1 kHz: (1% of rdg + 5 cts).

**Input Resistance** - 10 megaohm, paralleled by < 100 pF.

**DC Current**

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 mA</td>
<td>1 µA</td>
</tr>
<tr>
<td>40 mA</td>
<td>10 µA</td>
</tr>
<tr>
<td>400 mA</td>
<td>100 µA</td>
</tr>
<tr>
<td>10 A</td>
<td>10 mA</td>
</tr>
</tbody>
</table>

**Accuracy** -
4 mA ranges: ±(0.8% of rdg + 4 cts)
10 A: ±(0.4% of rdg + 2 cts).

**Burden Voltage** -
4 to 400 mA ranges: 1 V max
10 A: 800 mV max.

**Overload Protection** - mA ranges: 1 A (600V) fast-blow fuse; 20 A range: 15 A (600V) fast-blow fuse.

**DC Volts**

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mV</td>
<td>0.1 mV</td>
</tr>
<tr>
<td>4 V</td>
<td>1 mV</td>
</tr>
<tr>
<td>40 V</td>
<td>10 mV</td>
</tr>
<tr>
<td>400 V</td>
<td>100 mV</td>
</tr>
<tr>
<td>1000 V</td>
<td>1 V</td>
</tr>
</tbody>
</table>

**Accuracy** -
400 mV: ±(0.3% of rdg + 2 cts)
Other ranges: ±(0.1% of rdg + 2 cts).

**Input Impedance** - 10 megaohm paralleled by < 100 pF.
**AC Current**

**Range** | **Resolution**
--- | ---
4 mA | 1 µA
40 mA | 10 µA
400 mA | 100 µA
10 A | 10 mA

**Accuracy (40 to 1 kHz)** -
All ranges: ±(1% of rdg + 5 cts).

**Overload Protection** -
mA ranges: 1 A (600 V) fast-blow fuse;
20 and 10 A ranges: 15 A (600 V) fast-blow fuse.

**Resistance**

**Range** | **Resolution**
--- | ---
400 Ohm | 0.1 Ohm
4 kilohm | 1 Ohm
40 kilohm | 10 Ohm
400 kilohm | 100 Ohm
4 megaohm | 1 kilohm
40 megaohm | 10 kilohm

**Accuracy** -
400 Ohm: ±(0.4% of rdg + 4 cts)
4 to 400 kilohm: ±(0.4% of rdg + 2 cts)
4 megaohm: ±(0.6% of rdg + 3 cts)
40 megaohm: (1.5% of rdg + 5 cts).

**Overload Protection** - 600 VDC/AC RMS.

**Test Voltage (open circuit)** - approximately equal to 450 mV.

**Continuity**
Buzzer sounds if resistance < 30 Ohm.

**Input Protection** - 600 VDC/AC RMS.

**Capacitance**

**Range** | **Resolution**
--- | ---
4 nF | 1 pF
40 nF | 10 pF
400 nF | 100 pF
4 µF | 1 nF
40 µF | 10 nF

**Accuracy (in relative mode)** -
4 nF ±(1% of rdg + 40 cts).

**Other ranges** - 40 nF to 20 µF ±(1% of rdg + 4 cts)
> 20 µF ±(5% of rdg + 8 cts).

**Input Protection** - 600 VDC/AC RMS.

**Frequency**
Accuracy -
100 Hz to 100 kHz ±(0.1% of rdg + 4 cts)
1 MHz ±(0.5% of rdg + 4 cts).

Input Protection - 600 VDC/AC RMS.

ADP Mode
Display - 10 counts per 1 mV DC.
Accuracy - ±(0.3% of rdg + 4 cts).
Input Protection - 600 VDC/AC RMS.

Diode Test
Max Test Current - 0.6 mA.
Test Voltage (open circuit) - 3.6 V.
Resolution - 1 mV.
Input Protection - 600 VDC/AC RMS.

Safety
UL1244, CSA231, EN61010-1

Physical Characteristics

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>mm</th>
<th>in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>185</td>
<td>7.3</td>
</tr>
<tr>
<td>Width</td>
<td>86</td>
<td>3.4</td>
</tr>
<tr>
<td>Depth</td>
<td>32</td>
<td>1.26</td>
</tr>
<tr>
<td>Net Weight</td>
<td>kg</td>
<td>lb.</td>
</tr>
<tr>
<td></td>
<td>0.37</td>
<td></td>
</tr>
</tbody>
</table>

Display - 4000 count LCD.

Sampling Rate -
1 S/s for digital display (Capacitance mode);
2 S/s for digital display (All other modes);
20 S/s for analog bar graph.

Operating Ambient Temperature - -10°C to +50°C (0 to 80% R.H.).

Power Supply - 9 V battery.

Battery Life - 500 hours typical (alkaline).