

## 444-2 Low Voltage Micro-Ohmmeter



### Measures from 50 Micro-Ohm to 20 Ohms

Simpson's high precision Model 444-2 has been redesigned for added ESD immunity and longer battery life.

The model 444-2 Micro-Ohmmeter measures resistance from 50 micro-ohm to 20 ohms. It measures using an extremely small test voltage (100 microvolt maximum) and a four wire measurement technique.

The resistance reading is indicated on a 4-1/2 digit LCD display using one of two measuring modes: An automatic AC measurement mode or a manual DC measurement mode.

By limiting the test voltage of the Model 444-2 to only 100 micro volts the instrument will not "punch through" contamination or corrosion.

An audible tone can be used to indicate resistance values below any selected reading.

The Model 444-2 has a universal power input range of 85Vac to 250Vac and incorporates a self-contained rechargeable Ni-Cad battery for field use.

- **20,000 Count 4 1/2-Digit LCD**
- **2 Measurement Methods: AC Pulse and DC Polarity Switching**
- **"Punch-Through" Prevention by 100µV Max. Test Voltage**
- **User-Adjustable, Low-Resistance Alarm**
- **AC Test Mode Cancels Offset Voltages and Thermocouple Effects**
- **Includes Ni-Cad Battery for Field Use and Test Leads**
- **Extended Battery Life, 10 Hours Typical**

| <b>Ordering Information</b>    |                       |
|--------------------------------|-----------------------|
| <b>Micro-Ohmmeter</b>          | <b>Catalog Number</b> |
| 444-2 Micro-Ohmmeter, 85V/250V | 12681                 |
|                                |                       |
| <b>Accessories</b>             | <b>Catalog Number</b> |
| Standard Test Lead Set         | 00827                 |
| Kelvin Test Probe Set          | 02151                 |
| Case, Molded Plastic           | 45029                 |

## 444-2 Low Voltage Micro-Ohmmeter

| Specifications |            |                      |
|----------------|------------|----------------------|
| Range          | Resolution | Maximum Test Current |
| 20mΩ           | 1μΩ        | 5mA                  |
| 200mΩ          | 10μΩ       | 500μA                |
| 2Ω             | 100μΩ      | 50μA                 |
| 20Ω            | 1mΩ        | 5μA                  |

| Specifications                                      |  |
|---|--|
| <b>Accuracy</b>                                     | ± (0.05% of input ± 600 counts) DC mode<br>± (0.05% of input ± 15 counts) AC mode  |
| <b>Alarm</b>  | Resistance below set point activates audible beeper and display annunciator.<br>Resistance above set point activates display annunciator |
| <b>Set Point Adjustment</b>                         | Front Panel Knob   |
| <b>Set Point Accuracy</b>                           | ± (2% of input +150 counts)  |
| <b>Maximum Test Voltage</b>                         | 100μV peak   |
| <b>Measurement Techniques</b>                       | (AC) Pulse of 40 Hertz Square Wave and DC Switchable Polarity  |
| <b>Display</b>                                      | 19,999 counts, 4.5 digits LCD type, 0.5" high,<br>and "AC," "DC" and "↕" annunciators  |
| <b>Conversion Rate</b>                              | Reading 2 per second   |
| <b>Test Leads</b>                                   | BNC to dual Kelvin clip (2 leads) RG-58  |
| <b>Operating Voltage</b>                            | 85VAC to 250VAC, 10VA maximum  |
| <b>Operating Temperature Range</b>                  | 0° to 50°C   |
| <b>Storage Temperature Range</b>                    | -40° to +60°C  |
| <b>Relative Humidity</b>                            | 90% maximum up to 35°C,<br>70% maximum up to +50°C (non-condensing)  |
| <b>Temperature Coefficient</b>                      | 0.2%/°C (0° to 18°C and 28° to 50°C)   |
| <b>Extended Battery Life</b>                        | Typical 10 hours   |
| <b>Battery Mode Rated Circuit-To-Ground Voltage</b> | 30V (RMS)  |
| <b>Display Settling Time</b>                        | <15 seconds  |
| <b>Dimensions</b>                                   | 2.7" x 8.4" x 9.0" (68 x 213 x 228 mm) nominal   |
| <b>Weight</b>                                       | Approximately 3 lbs.   |