

## ELECTRICAL SPECIFICATIONS

**Accuracy** :  $\pm$  (% reading + digit) at  $23 \pm 5^{\circ}\text{C}$  less than 75% RH.

### AC VOLTAGE (50Hz~500Hz)

| Range  | Resolution        | Accuracy                             |
|--------|-------------------|--------------------------------------|
| 400 mV | 100 $\mu\text{V}$ | $\pm(1.0\%\text{rdg} + 4\text{dgt})$ |
| 4 V    | 1 mV              |                                      |
| 40 V   | 10 mV             |                                      |
| 400 V  | 100 mV            |                                      |
| 750 V  | 1 V               | $\pm(1.5\%\text{rdg} + 4\text{dgt})$ |

**Input Impedance** :  $20\text{M}\Omega$

**Overload Protection**: 500V DC or AC rms on 400mV range,  
1000V DC or 750V AC rms on all other ranges

### DC VOLTAGE

| Range  | Resolution        | Accuracy                             |
|--------|-------------------|--------------------------------------|
| 400 mV | 100 $\mu\text{V}$ | $\pm(0.5\%\text{rdg} + 1\text{dgt})$ |
| 4 V    | 1 mV              |                                      |
| 40 V   | 10 mV             |                                      |
| 400 V  | 100 mV            |                                      |
| 1000 V | 1 V               |                                      |

**Input Impedance** :  $20\text{M}\Omega$

**Overload Protection**: 500V DC or AC rms on 400mV range,  
1000V DC or 750V AC rms on all other ranges

### RESISTANCE

| Range          | Resolution     | Accuracy                             |
|----------------|----------------|--------------------------------------|
| 400 $\Omega$   | 0.1 $\Omega$   | $\pm(0.8\%\text{rdg} + 4\text{dgt})$ |
| 4 K $\Omega$   | 1 $\Omega$     | $\pm(0.8\%\text{rdg} + 2\text{dgt})$ |
| 40 K $\Omega$  | 10 $\Omega$    |                                      |
| 400 K $\Omega$ | 100 $\Omega$   |                                      |
| 4 M $\Omega$   | 1 K $\Omega$   |                                      |
| 40 M $\Omega$  | 10 K $\Omega$  | $\pm(3.0\%\text{rdg} + 4\text{dgt})$ |
| 400 M $\Omega$ | 100 K $\Omega$ | $\pm(10\%\text{rdg} - 10\text{dgt})$ |

**Overload Protection** : 500V DC or AC rms

**Open Circuit Voltage** : 0.6V DC

(3.0V DC on 400 $\Omega$  and 400M $\Omega$  ranges)

### DIODE TEST

| Test Current    | Open Circuit Voltage | Accuracy                             |
|-----------------|----------------------|--------------------------------------|
| 1.0 $\pm$ 0.6mA | 3.0V MAX             | $\pm(3.0\%\text{rdg} + 3\text{dgt})$ |

**Overload protection** : 500V DC/AC rms

### CONTINUITY TEST

|                             |                        |
|-----------------------------|------------------------|
| <b>Audible Sound Buzzer</b> | Less than 100 $\Omega$ |
|-----------------------------|------------------------|

**Overload Protection** : 500V DC/AC rms

### FREQUENCY

| Range | Resolution | Accuracy                             |
|-------|------------|--------------------------------------|
| 2 MHz | 1 Hz       | $\pm(0.1\%\text{rdg} + 1\text{dgt})$ |

**Overload Protection** : 500V DC or AC rms

**Input Sensitivity** : 50mV on 10Hz-1MHz, 2V on 1MHz-4MHz

**Effective reading** : 10 - 3999

### AC CURRENT[(Avg. Sine Wave)(50Hz~500Hz)]

| Range  | Resolution        | Accuracy                             |
|--------|-------------------|--------------------------------------|
| 40 mA  | 10 $\mu\text{A}$  | $\pm(1.5\%\text{rdg} + 4\text{dgt})$ |
| 400 mA | 100 $\mu\text{A}$ |                                      |
| 10 A   | 10 mA             | $\pm(3.5\%\text{rdg} + 4\text{dgt})$ |

**Overload Protection** : 0.8A/250V fuse,  
10A/60 sec. Input "unfused".

### DC CURRENT

| Range  | Resolution       | Accuracy                             |
|--------|------------------|--------------------------------------|
| 40 mA  | 10 $\mu\text{A}$ | $\pm(1.0\%\text{rdg} + 1\text{dgt})$ |
| 400 mA | 100 mA           |                                      |
| 10 A   | 10 mA            | $\pm(3.0\%\text{rdg} + 1\text{dgt})$ |

**Overload Protection** : 0.8A/250V fuse,  
10A/60 sec. Input "unfused".

### CAPACITANCE

| Range            | Resolution | Accuracy                              |
|------------------|------------|---------------------------------------|
| 4 nF             | 1 pF       | $\pm(5.0\%\text{rdg} + 10\text{dgt})$ |
| 40 nF            | 10 pF      |                                       |
| 400 nF           | 100 pF     |                                       |
| 4 $\mu\text{F}$  | 1 nF       |                                       |
| 40 $\mu\text{F}$ | 10 nF      |                                       |

**Test Frequency** : @ 400Hz

**Voltage Measurement** : Approx. 40mV

### TRANSISTOR hFE TEST

| Range     | Vce   | Basic DC Current |
|-----------|-------|------------------|
| 0 to 1000 | <3.5V | 10 $\mu\text{A}$ |

### LOGIC TEST

| Threshold       |                 |
|-----------------|-----------------|
| Logic Hi(▲)     | Logic Lo(▼)     |
| 2.8V $\pm$ 0.8V | 0.8V $\pm$ 0.5V |

**Overload protection** : 500V DC/AC rms

**Detectable pulse width** : 25nS

**Pulse Limits** : >30% & < 70% duty Cycle

**Indication** : 40msec beeper at logic low

**Frequency Response** : 20MHz