

# Specification

## 6-1 DC Voltage

| Range | Resolution | Accuracy                                       |
|-------|------------|------------------------------------------------|
| 60mV  | 0.01mV     | $\pm(0.8\% \text{ of rdg} + 2 \text{ digits})$ |
| 600mV | 0.1mV      |                                                |
| 6V    | 1mV        |                                                |
| 60V   | 10mV       |                                                |
| 600V  | 100mV      | $\pm(0.5\% \text{ of rdg} + 2 \text{ digits})$ |
| 1000V | 1V         |                                                |
|       |            | $\pm(0.8\% \text{ of rdg} + 2 \text{ digits})$ |

-- Impedance: 10M $\Omega$ , More than 100M $\Omega$  on 60mV/600mV range

-- Overload protection: 1000V DC or 750V AC rms

## 6-2 AC Voltage (True RMS)

| Range | Resolution | Accuracy                                       |
|-------|------------|------------------------------------------------|
| 60mV  | 0.01mV     | $\pm(1.5\% \text{ of rdg} + 3 \text{ digits})$ |
| 600mV | 0.1mV      |                                                |
| 6V    | 1mV        |                                                |
| 60V   | 10mV       |                                                |
| 600V  | 100mV      | $\pm(1.0\% \text{ of rdg} + 3 \text{ digits})$ |
| 750V  | 1V         |                                                |
|       |            | $\pm(1.5\% \text{ of rdg} + 3 \text{ digits})$ |

-- Impedance: 10M $\Omega$ , More than 100M $\Omega$  on 60mV/600mV range

-- Overload protection: 1000V DC or 750V AC rms

-- Frequency Range: 40 to 400Hz

## 6-3 DC Current

| Range        | Resolution  | Accuracy                                       |
|--------------|-------------|------------------------------------------------|
| 600 $\mu$ A  | 0.1 $\mu$ A | $\pm(1.2\% \text{ of rdg} + 2 \text{ digits})$ |
| 6000 $\mu$ A | 1 $\mu$ A   |                                                |
| 60mA         | 10 $\mu$ A  |                                                |
| 600mA        | 100 $\mu$ A |                                                |
| 6A           | 1mA         | $\pm(2.0\% \text{ of rdg} + 3 \text{ digits})$ |
| 20A          | 10mA        |                                                |
| 600A         | 100mA       | $\pm(2.5\% \text{ of rdg} + 5 \text{ digits})$ |

-- 600A range with AC/DC Current Clamp Adapter

-- Overload protection: 800mA/500V Fast Fuse, 20A/500V Fast Fuse, 20A up to 10 seconds

## 6-4 AC Current (True RMS)

| Range        | Resolution  | Accuracy                                       |
|--------------|-------------|------------------------------------------------|
| 600 $\mu$ A  | 0.1 $\mu$ A | $\pm(1.5\% \text{ of rdg} + 3 \text{ digits})$ |
| 6000 $\mu$ A | 1 $\mu$ A   |                                                |
| 60mA         | 10 $\mu$ A  |                                                |
| 600mA        | 100 $\mu$ A |                                                |
| 6A           | 1mA         | $\pm(2.5\% \text{ of rdg} + 5 \text{ digits})$ |
| 20A          | 10mA        |                                                |
| 600A         | 100mA       | $\pm(3.0\% \text{ of rdg} + 5 \text{ digits})$ |

-- 600A range with AC/DC Current Clamp Adapter

-- Overload protection: 800mA/500V Fast Fuse, 20A/500V Fast Fuse, 20A up to 10 seconds

-- Frequency Range: 40 to 400Hz

## 6-5 Resistance

| Range         | Resolution   | Accuracy                                       |
|---------------|--------------|------------------------------------------------|
| 600 $\Omega$  | 0.1 $\Omega$ | $\pm(1.0\% \text{ of rdg} + 3 \text{ digits})$ |
| 6k $\Omega$   | 1 $\Omega$   |                                                |
| 60k $\Omega$  | 10 $\Omega$  |                                                |
| 600k $\Omega$ | 100 $\Omega$ |                                                |
| 6M $\Omega$   | 1k $\Omega$  | $\pm(1.0\% \text{ of rdg} + 2 \text{ digits})$ |
| 60M $\Omega$  | 10k $\Omega$ |                                                |
|               |              | $\pm(1.5\% \text{ of rdg} + 3 \text{ digits})$ |

-- Overload protection: 500V DC or AC rms

## 6-6 Capacitance

| Range         | Accuracy                                         | Resolution |
|---------------|--------------------------------------------------|------------|
| 9.999nF       | $\pm(3.0\% \text{ of rdg} + 10 \text{ digits})$  | 1pF        |
| 99.99nF       |                                                  | 10pF       |
| 999.9nF       | $\pm(2.5\% \text{ of rdg} + 5 \text{ digits})$   | 100pF      |
| 9.999 $\mu$ F |                                                  | 1nF        |
| 99.99 $\mu$ F | $\pm(5.0\% \text{ of rdg} + 10 \text{ digits})$  | 10nF       |
| 999.9 $\mu$ F |                                                  | 100nF      |
| 9.999mF       | $\pm(10.0\% \text{ of rdg} + 20 \text{ digits})$ | 1 $\mu$ F  |
| 99.99mF       |                                                  | 10 $\mu$ F |

-- Overload protection: 500V DC or AC rms

## 6-8 Duty cycle

0.1%~99.9%:  $\pm(2.0\% \text{ of rdg} + 2 \text{ digits})$ , Frequency lower than 10kHz

-- Sensitivity: sine wave 0.6V rms

-- Overload protection: 500V DC or AC rms

## 6-9 Temperature

| Range              | Accuracy                    | Resolution                                 |
|--------------------|-----------------------------|--------------------------------------------|
| $^{\circ}\text{C}$ | -20~150 $^{\circ}\text{C}$  | $\pm(3^{\circ}\text{C} + 1\text{digit})$   |
|                    | 150~1000 $^{\circ}\text{C}$ | $\pm(3\% \text{ of rdg} + 2\text{digits})$ |
| $^{\circ}\text{F}$ | -4~302 $^{\circ}\text{F}$   | $\pm(5^{\circ}\text{F} + 2\text{digits})$  |
|                    | 302~1832 $^{\circ}\text{F}$ | $\pm(3\% \text{ of rdg} + 3\text{digits})$ |

-- NiCr-NiSi K-type sensor

-- Overload protection: 800mA/500V Fast Fuse

## 6-10 Diode and Audible continuity test

| Range                                                                              | Description                                                   | Test Condition                                                       |
|------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------|
|   | Display read approximately forward voltage of diode           | Forward DC current approx. 1.5mA<br>Reversed DC voltage approx. 3.2V |
|  | Built-in buzzer sounds if resistance is less than 50 $\Omega$ | Open circuit voltage approx. 1V                                      |

Overload protection: 500V DC or AC rms

## 6-11 Transistor hFE test

Test range: 0-1000

I<sub>b</sub>=10 $\mu$ A, V<sub>ce</sub>=1.8V Approx.

## 6-12 Non Contact AC Voltage (NCV) detection

Test voltage range: 90V~1000V AC rms

The NCV red light and green light will light up alternately together with sound.