



## 1. ELECTRICAL SPECIFICATIONS

Accuracy is indicated as  $\pm[\% \text{ reading} + (\text{number of dgt} * \text{resolution})]$  at  $23^{\circ}\text{C} \pm 5^{\circ}\text{C}, < 80\% \text{RH}$

### DC VOLTAGE

Range	Resolution	Accuracy	Input impedance	Overload protection
400.0mV	0.1mV	$\pm(2.0\% \text{rdg} + 8 \text{dgt})$	10M $\Omega$	600VDC/ACrms
4.000V	0.001V	$\pm(2.0\% \text{rdg} + 3 \text{dgt})$		
40.00V	0.01V			
400.0V	0.1V			
600V	1V	$\pm(1.2\% \text{rdg} + 3 \text{dgt})$		

### AC TRMS VOLTAGE

Range	Resolution	Accuracy (50Hz $\div$ 400Hz)	Input impedance	Overload protection
4.000V	0.001V	$\pm(2.0\% \text{rdg} + 5 \text{dgt})$	10M $\Omega$	600VDC/ACrms
40.00V	0.01V	$\pm(1.5\% \text{rdg} + 3 \text{dgt})$		
400.0V	0.1V			
600V	1V	$\pm(2.0\% \text{rdg} + 4 \text{dgt})$		

### DC CURRENT

Range	Resolution	Accuracy	Overload protection
400.0 $\mu$ A	0.1 $\mu$ A	$\pm(1.5\% \text{rdg} + 3 \text{dgt})$	Fast fuse 500mA/600V
4000 $\mu$ A	1 $\mu$ A		
40.00mA	0.01mA		
400.0mA	0.1mA		
4.000A	0.001A	$\pm(2.5\% \text{rdg} + 5 \text{dgt})$	Fast fuse 10A/600V
10.00A	0.01A		

### AC TRMS CURRENT

Range	Resolution	Accuracy (50Hz $\div$ 400Hz)	Overload protection
400.0 $\mu$ A	0.1 $\mu$ A	$\pm(2.0\% \text{rdg} + 5 \text{dgt})$	Fast fuse 500mA/600V
4000 $\mu$ A	1 $\mu$ A	$\pm(2.5\% \text{rdg} + 5 \text{dgt})$	
40.00mA	0.01mA		
400.0mA	0.1mA		
4.000A	0.001A	$\pm(3.0\% \text{rdg} + 7 \text{dgt})$	Fast fuse 10A/600V
10.00A	0.01A		

(\*) Accuracy referred to sinusoidal waveform. For not sinusoidal waveforms the accuracy is  $\pm(10.0\% \text{rdg} + 5 \text{dgt})$

### RESISTANCE AND CONTINUITY TEST

Range	Resolution	Accuracy	Buzzer	Overload protection
400.0 $\Omega$	0.1 $\Omega$	$\pm(1.0\% \text{rdg} + 4 \text{dgt})$	<50 $\Omega$	250VDC/ACrms
4.000k $\Omega$	0.001k $\Omega$	$\pm(1.5\% \text{rdg} + 5 \text{dgt})$		
40.00k $\Omega$	0.01k $\Omega$			
400.0k $\Omega$	0.1k $\Omega$			
4.000M $\Omega$	0.001M $\Omega$			
40.00M $\Omega$	0.01M $\Omega$			

**DIODE TEST**

Function	Max open voltage	Overload protection
	3VDC	250VDC/ACrms

**FREQUENCY**

Range	Resolution	Accuracy	Sensitivity	Overload protection
9.999Hz	0.001Hz	$\pm(1.5\%rdg+5dgt)$	>8Vrms	250VDC/ACrms
99.99Hz	0.01Hz			
999.9Hz	0.1Hz	$\pm(1.2\%rdg+3dgt)$		
9.999kHz	0.001kHz			

**DUTY CYCLE**

Range	Resolution	Accuracy	Sensitivity	Overload protection
0.1 – 99.9%	0.1%	$\pm(1.2\%rdg + 2dgt)$	>8Vrms	250VDC/ACrms

100 $\mu$ s < impulse duration < 100ms ; Frequency range: 5Hz ÷ 150Hz

**CAPACITANCE**

Range	Resolution	Accuracy	Overload protection
40.00nF	0.01nF	$\pm(5.0\%rdg+35dgt)$	250VDC/ACrms
400.0nF	0.1nF	$\pm(3.0\%rdg+5dgt)$	
4.000 $\mu$ F	0.001 $\mu$ F		
40.00 $\mu$ F	0.01 $\mu$ F	$\pm(4.0\%rdg+5dgt)$	
400.0 $\mu$ F	0.1 $\mu$ F		
4000 $\mu$ F	1 $\mu$ F	$\pm(5.0\%rdg+5dgt)$	

**TEMPERATURE WITH TYPE K PROBE**

Range	Resolution	Accuracy (*)	Overload protection
-20.0°C ÷ 760.0°C	0.1°C	$\pm(3.0\%rdg+5^{\circ}C)$	250VDC/ACrms
-4.0°F ÷ 1400.0°F	0.1°F	$\pm(3.0\%rdg+9^{\circ}F)$	

(\*) Accuracy of only instrument without probe



## 2. GENERAL SPECIFICATIONS


### Display:

- LCD, 3 3/4 dgt, 4000 points plus sign and decimal point
- Sampling rate: 2 times/s
- Automatic polarity indication
- Backlight
- “OL” overrange indication
- Conversion: TRMS

### Features:

- Data HOLD, MAX/MIN

### Low battery indication:

- “” appears when the battery voltage is low

### Operating temperature:

- 5 °C to 50 °C, <80%RH

### Storage temperature:

- -20 °C to 60 °C, <80%RH

### General information:

- Max height of use: 2000m
- Pollution degree: 2
- Insulation: double insulation
- Mechanical protection: IP40

### Power supply:

- 1x9V battery NEDA 1604 IEC 6F22
- Auto Power OFF: after 15 min of idleness
- Protection fuses: fast 10A/600V, 5x20mm (**10A** input)  
fast 500mA/600V, 5x20mm (**mA** input)

### Dimensions (L x W x H):

- 145 x 70 x 60mm

### Weight (included battery):

- 240g

### Reference guidelines:

- Safety : IEC/EN61010-1
- EMC: IEC/EN61326-1
- Measurement category: CAT III 600V to ground

**This product conforms to the prescriptions of the European directive on low voltage 2014/35/EU and to EMC directive 2014/30/EU**  
**This product conforms to the prescriptions of the European directive 2011/65/EU (RoHS) and the European directive 2012/19/EU (WEEE)**