



English

Product Datasheet

Stock No: 161-1629

Heavy Duty True RMS Digital Multimeter

EN



Specifications

Technical	
Insulation	Class2, Double insulation.
Over voltage category	CATIV 600V,CATIII 1000V
NOTE: These meters meet CAT III and CAT IV IEC 61010 standards. The IEC 61010 safety standard defines four overvoltage categories (CAT I to IV) based on the magnitude of danger from transient impulses. CAT III meters are designed to protect against transients in fixed-equipment installations at the distribution level; CAT IV meters are designed to protect against transients from the primary supply level (overhead or underground utility service).	
Maximum voltage between any terminal and earth ground	1000V dc/ ac RMS
Display	4000 counts LCD display, 21mm high
Polarity	Automatic, (-) negative polarity indication.
Over-range	"OL" mark indication.
Low battery indication	A battery "⚡" symbol is displayed when the battery voltage drops below the operating level.
Measurement rate	2 times per second nominal.
Auto power off	Meter automatically shuts down after approx. 30 minutes of inactivity.
Operating environment	-10 °C to 50 °C (14 °F to 122 °F) at < 70 % relative humidity.
Storage temperature	-30 °C to 60 °C (-4 °F to 140 °F) at < 80 % relative humidity.to
Relative humidity	90% (0°C to 30°C); 75%(30°C to 40°C); 45%(40°C to 50°C);
For inside use, max height	Operating:3000m, Storage 10,000m
Pollution degree	2
Safety	The instrument complies with IEC/EN 61010-1:2001 and IEC/EN 61010-031:2002
Power	One 9V battery , NEDA 1604, IEC 6F22.
Dimensions	180 (H) x 82 (W) x59 (D) mm
Weight	436 g

DC Voltage (Auto-ranging)

Range	Resolution	Accuracy
400.0mV	0.1mV	$\pm 0.8\%$ of rdg ± 2 digits
4.000V	1mV	$\pm 0.5\%$ of rdg ± 2 digits
40.00V	10mV	
400.0V	100mV	
1000V	1V	$\pm 0.8\%$ of rdg ± 2 digits

Input Impedance: 10M Ω .

Maximum Input: 1000V dc or 1000V ac rms.

AC Voltage (Auto-ranging)

Range	Resolution	Accuracy
400.0mV	0.1mV	$\pm 1.5\%$ of rdg ± 25 digits
4.000V	1mV	$\pm 1.0\%$ of rdg ± 3 digits
40.00V	10mV	
400.0V	100mV	
1000V	1V	$\pm 1.2\%$ of rdg ± 5 digits

All AC voltage ranges are specified from 5% of range to 100% of range.

Input Impedance: 10M Ω .

AC Response: 50 Hz to 400Hz

Maximum Input: 1000V dc or 1000V ac rms.

DC Current (Auto-ranging)

Range	Resolution	Accuracy
400.0uA	0.1uA	$\pm 1.0\%$ of rdg ± 5 digits
4000uA	1uA	$\pm 1.5\%$ of rdg ± 5 digits
40.00mA	10uA	
400.0mA	100uA	
10A	10mA	

Overload Protection: FF500mA / 1000V and F10A / 1000V Fuse.

Maximum Input: 400uA dc on uA range; 400mA dc on mA range; 10A dc on 10A range.

AC Current (Auto-ranging)

Range	Resolution	Accuracy
400.0uA	0.1uA	± 1.2% of rdg ±5digits
4000uA	1uA	
40.00mA	10uA	
400.0mA	100uA	
10A	10mA	± 1.8% of rdg ±5digits

All AC Current ranges are specified from 5% of range to 100% of range.

Overload Protection: FF500mA / 1000V and F10A / 1000V Fuse.

AC Response: 50 Hz to 400 Hz

Maximum Input: 400uA ac rms on uA

400mA ac rms on mA

10A ac rms on 10A range.

Resistance [Ω] (Auto-ranging)

Range	Resolution	Accuracy
400.0 Ω	0.1 Ω	± 1.2% of rdg ±5digits
4.000k Ω	1 Ω	± 1% of rdg ±2digits
40.00k Ω	10 Ω	
400.0k Ω	100 Ω	
4.000M Ω	1k Ω	± 2.5% of rdg ±8digits
40.00M Ω	10k Ω	

Input Protection: 1000V dc or 1000V ac rms.

Capacitance (Auto-ranging)

Range	Resolution	Accuracy
40 nF	10pF	$\pm 5.0\%$ of rdg ± 7 digits
400 nF	0.1nF	$\pm 3.0\%$ of rdg ± 5 digits
4000 uF	1nF	
40 uF	10nF	
400 uF	0.1uF	$\pm 5.0\%$ of rdg ± 7 digits
4000 mF	1 uF	
40 mF	10 uF	

Input Protection: 1000V dc or 1000V ac rms.

Frequency (Auto-ranging)

Range	Resolution	Accuracy
4000 Hz	0.001 Hz	$\pm 0.3\%$ of rdg ± 3 digits
40 kHz	10 Hz	
400 kHz	100 Hz	
10 MHz	1 kHz	$\pm 0.5\%$ of rdg ± 4 digits

Sensitivity: $> 0.5V$ RMS while $\leq 1MHz$;

Sensitivity: $> 3V$ RMS while $> 1MHz$;

Input Protection: 1000V dc or 1000V ac rms.

Temperature

Range	Resolution	Accuracy
$-20^{\circ}C \sim +760^{\circ}C$	1 $^{\circ}C$	$\pm 3\%$ of rdg ± 3 digits
$-4^{\circ}F \sim +1400^{\circ}F$	1 $^{\circ}F$	$\pm 3\%$ of rdg ± 8 digits

Sensor: Type K Thermocouple

Overload protection: 1000V dc or ac rms.

Diode Test

Range	Resolution	Accuracy
1mA typical/ Open MAX. 3V	1 mV	$\pm 10\%$ of rdg ± 5 digits

Open circuit voltage: MAX. 3V dc

Overload protection: 1000V dc or ac rms.