

Electrical Specifications

Function	Range ^[1]	Resolution	Accuracy $\pm$ ([% of Reading] + [Counts])		
			175	177	179
AC Volts ^{[2] [3]}	600.0 mV	0.1 mV	1.0 % + 3 (45 Hz to 500 Hz)	1.0 % + 3 (45 Hz to 500 Hz)	1.0 % + 3 (45 Hz to 500 Hz)
	6.000 V	0.001 V			
	60.00 V	0.01 V			
	600.0 V	0.1 V	2.0 % + 3 (500 Hz to 1 kHz)	2.0 % + 3 (500 Hz to 1 kHz)	2.0 % + 3 (500 Hz to 1 kHz)
	1000 V	1 V			
DC mV	600.0 mV	0.1 mV	0.15 % + 2	0.09 % + 2	0.09 % + 2
DC Volts	6.000 V	0.001 V	0.15 % + 2	0.09 % + 2	0.09 % + 2
	60.00 V	0.01 V			
	600.0 V	0.1 V			
	1000 V	1 V	0.15 % + 2	0.15 % + 2	0.15 % + 2
Continuity	600 Ω	1 Ω	Product beeps at <25 Ω , beeper turns off at >250 Ω ; detects opens or shorts of 250 μ s or longer.		
Ohms	600.0 Ω	0.1 Ω	0.9 % + 2	0.9 % + 2	0.9 % + 2
	6.000 k Ω	0.001 k Ω	0.9 % + 1	0.9 % + 1	0.9 % + 1
	60.00 k Ω	0.01 k Ω	0.9 % + 1	0.9 % + 1	0.9 % + 1
	600.0 k Ω	0.1 k Ω	0.9 % + 1	0.9 % + 1	0.9 % + 1
	6.000 M Ω	0.001 M Ω	0.9 % + 1	0.9 % + 1	0.9 % + 1
	50.00 M Ω	0.01 M Ω	1.5 % + 3	1.5 % + 3	1.5 % + 3

Function	Range ^[1]	Resolution	Accuracy $\pm$ ([% of Reading] + [Counts])		
			175	177	179
Diode test	2.400 V	0.001 V	1 % + 2		
Capacitance	1000 nF	1 nF	1.2 % + 2	1.2 % + 2	1.2 % + 2
	10.00 μ F	0.01 μ F	1.2 % + 2	1.2 % + 2	1.2 % + 2
	100.0 μ F	0.1 μ F	1.2 % + 2	1.2 % + 2	1.2 % + 2
	9999 μ F ^[4]	1 μ F	10 % typical	10 % typical	10 % typical
AC Amps ^[5] (True-rms) (45 Hz to 1 kHz)	60.00 mA	0.01 mA	1.5 % + 3	1.5 % + 3	1.5 % + 3
	400.0 mA ^[6]	0.1 mA			
	6.000 A	0.001 A			
	10.00 A ^[7]	0.01 A			
DC Amps ^[5]	60.00 mA	0.01 mA	1.0 % + 3	1.0 % + 3	1.0 % + 3
	400.0 mA ^[6]	0.1 mA			
	6.000 A	0.001 A			
	10.00 A ^[7]	0.01 A			
Hz (AC- or DC- coupled, V or A ^[8] ^[9] input)	99.99 Hz	0.01 Hz	0.1 % + 1	0.1 % + 1	0.1 % + 1
	999.9 Hz	0.1 Hz			
	9.999 kHz	0.001 kHz			
	99.99 kHz	0.01 kHz			

Function	Range ^[1]	Resolution	Accuracy ±([% of Reading] + [Counts])		
			175	177	179
Temperature ^[10]	-40 °C to +400 °C -40 °F to +752 °F	0.1 °C 0.1 °F	NA	NA	1 % + 10 ^[11] 1 % + 18 ^[10]
MIN MAX AVG	For dc functions, accuracy is the specified accuracy of the measurement function ±12 counts for changes longer than 350 ms in duration. For ac functions, accuracy is the specified accuracy of the measurement function ±40 counts for changes longer than 900 ms in duration.				
[1] All ac voltage and ac current ranges are specified from 5 % of range to 100 % of range. [2] Crest factor of ≤3 at full scale up to 500 V, decreasing linearly to crest factor ≤1.5 at 1000 V. [3] For non-sinusoidal waveforms, add -(2 % reading + 2 % full scale) typical, for crest factors up to 3. [4] In the 9999 μF range for measurements to 1000 μF, the measurement accuracy is 1.2 % + 2 for all models. [5] Amps input burden voltage (typical): 400 mA input 2 mV/mA, 10 A input 37 mV/A. [6] 400.0 mA accuracy specified up to 600 mA overload. [7] >10 A unspecified. [8] Frequency is specified from 2 Hz to 99.99 kHz in Volts and from 2 Hz to 30 kHz in Amps. [9] Below 2 Hz, the display shows zero Hz. [10] In RF field of 3 V/m specified accuracy ±5 °C (9 °F). [11] Does not include error of the thermocouple probe.					

Function	Overload Protection ^[1]	Input Impedance (Nominal)	Common Mode Rejection Ratio (1 kΩ Unbalanced)		Normal Mode Rejection
Volts ac	1000 V rms	>10 MΩ < 100 pF	>60 dB @ dc, 50 Hz or 60 Hz		
Volts dc	1000 V rms	>10 MΩ < 100 pF	>120 dB @ dc, 50 Hz or 60 Hz		>60 dB @ 50 Hz or 60 Hz
mV/🔌	1000 V rms ^[2]	>10 MΩ < 100 pF	>120 dB @ dc, 50 Hz or 60 Hz		>60 dB @ 50 Hz or 60 Hz
		Open Circuit Test Voltage	Full Scale Voltage To:		Short Circuit Current
			600 kΩ	50 MΩ	
Ohms/Capacitance	1000 V rms ^[2]	<8.0 V dc	<660 mV dc	<4.6 V dc	<1.1 mA
Continuity/Diode test	1000 V rms ^[2]	<8.0 V dc	2.4 V dc		<1.1 mA
[1] 10 ⁷ V-Hz maximum.					
[2] For circuits <0.3 A short circuit. 660 V for high energy circuits.					

Function	Overload Protection	Overload
mA	Fused, 44/100 A, 1000 V FAST Fuse	600 mA overload for 2 minutes maximum, 10 minutes rest minimum
A	Fused, 11 A, 1000 V FAST Fuse	20 A overload for 30 seconds maximum, 10 minutes rest minimum

Frequency Counter Sensitivity						
Input Range ^{[1] [2]}		Typical Sensitivity (RMS Sine Wave)				
		2 Hz to 45 Hz	45 Hz to 10 kHz	10 kHz to 20 kHz	20 kHz to 50 kHz	50 kHz to 100 kHz
Volts ac	600 mV	Unspecified ^[3]	80 mV	150 mV	400 mV	Unspecified ^[3]
	6 V	0.5 V	0.6 V	1.0 V	2.8 V	Unspecified ^[3]
	60 V	5 V	3.8 V	4.1 V	5.6 V	9.6 V
	600 V	50 V	36 V	39 V	45 V	58 V
	1000 V	500 V	300 V	320 V	380 V	NA
Volts dc	6 V	0.5 V	0.75 V	1.4 V	4.0 V	Unspecified ^[3]
	60 V	4 V	3.8 V	4.3 V	6.6 V	13 V
	600 V	40 V	36 V	39 V	45 V	58 V
	1000 V	500 V	300 V	320 V	380 V	NA
AC/DC Amps	mA	5 mA	4 mA	4 mA	4 mA ^[4]	NA
	A	0.5 A	0.4 A	0.4 A	0.4 A ^[4]	NA
[1] Maximum input for specified accuracy = 10X Range or 1000 V. [2] Noise at low frequency and amplitude may exceed the frequency accuracy specification. [3] Unspecified but usable depending on quality and amplitude of signal. [4] In mA and A ranges, frequency measurement is specified to 30 kHz.						