



# 1000V AC/DC Digital Insulation Resistance Tester

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### Functions

- Insulation Resistance 2.0GΩ
- Earth-bond Resistance 20.00kΩ
- 1000V AC/DC
- Resistance 40MΩ
- Frequency 99.99kHz
- Capacitance 10000μF
- Continuity and Diode test
- mAmps
- Temperature: -328° to 2462°F (-200° to 1350°C)

### Features

- PI/DAR test
- A-hold/ Hold
- Zero reading
- Lock reading
- Rotary style selector
- Protective rubber boot
- Kick stand
- Test lead holders
- Remote probe
- Auto power off
- Backlit / Worklight
- 1-Year limited warranty



### Includes

- Silicone test leads w/ alligator clips (red and black) (ATL57)
- Insulation test probe w/ alligator clips (red)
- K-Type thermocouple
- Soft carrying case
- Batteries (4 AA)
- Manual



RoHS Compliant

600V  
CAT IV

1000V  
CAT III

### Applications

- Test for capacitive leakage between conductors
- Test for insulation deterioration
- Build up of dirt or moisture in motor windings





## Specifications

### AC Voltage

RANGE	RESOLUTION	Accuracy 45Hz to 400Hz ±(% rdg + dgts)	Accuracy 400Hz to 5kHz ±(% rdg + dgts)
400mV	0.1mV	±(1.0% +5 dgts)	±(2% + 3 dgts)
4V	0.001V		
40V	0.01V		
400V	0.1V		
1000V	1V	±(2% + 3 dgts)	±(2% + 3 dgts) <sup>1</sup>

1.1 kHz bandwidth  
Input impedance 10MΩ (nominal),  
<100pF, AC-coupled  
Overload protection 1000V rms  
or DC

### DC Voltage

RANGE	RESOLUTION	Accuracy 45Hz to 400Hz ±(% rdg + dgts)
4V	0.001V	±(0.2% +3 dgts)
40V	0.01V	
400V	0.1V	
1000V	1V	±(0.3% + 6 dgts)

Accuracies apply to 100% of range  
Input impedance 10MΩ (nominal),  
<100pF  
Overload protection AC 1000V rms  
or DC

### Continuity

RANGE	RESOLUTION	Accuracy	OVERLOAD PROTECTION
400.0Ω	0.1Ω	Approx. 40Ω	600V

### Diode Test

RANGE	RESOLUTION	ACCURACY	OVERLOAD PROTECTION
3V	0.001V	±(2% +1 dgts)	600V

### Capacitance

RANGE	RESOLUTION	ACCURACY	OVERLOAD PROTECTION
10.00nF	0.01nF	±(2.5% +5 dgts)	600V
100.0nF	0.1nF		
1.000μF	0.001μF		
10.00μF	0.01μF		
100.0μF	0.1μF		
1000μF	1μF		
10000μF	1μF	±(3% +5 dgts)	

### AC and DC Current

AC and DC CURRENT	RANGE RESOLUTION	RESOLUTION	ACCURACY
AC (45Hz to 1000Hz)	40mA	0.01mA	±(1.5% +5 dgts) <sup>1</sup>
	400mA	0.1mA	
DC	40mA	0.01mA	
	400mA	0.01mA	

1. 1kHz bandwidth  
Overload 600mA for 2 minutes Max.  
Overload Protection 440mA, 1000V, FAST fuse

### OHMS

RANGE	RESOLUTION	±(% of rdg +dgts)
400Ω	0.1Ω	±(0.3% +5 dgts)
4kΩ	0.001kΩ	
40kΩ	0.01kΩ	
400kΩ	0.1kΩ	±(0.7% +5 dgts)
4MΩ	0.001MΩ	±(1.2% +10 dgts)
40MΩ	0.01MΩ	

1. Accuracies apply from 0 to 100% of range  
Overload protection 600V rms or DC  
Short circuit current <1.0mA

### DC Millivolts

RANGE	RESOLUTION	±(% of rdg +dgts)
400mV DC	0.1mV	±(0.2% +3 dgts)

### Frequency

RANGE	RESOLUTION	ACCURACY
99.99Hz	0.01Hz	±(0.1% +3 dgts)
999.9Hz	0.1Hz	
9.999kHz	0.001kHz	
99.99kHz	0.01kHz	

### Temperature

RANGE	RESOLUTION	ACCURACY <sup>1</sup>
-328° to 999°F (-200° to 999°C)	0.1°F (0.1°C)	±(1.5% +3.6°F (1.5% +2°C))
1000° to 2642°F (1000° to 1350°C)	1°F (1°C)	±(1.5% +3°F (1.5% +2°C))

1. Accuracies apply following 90 minutes setting time after a change in the ambient temperature of the instrument

### Earth-Bond Resistance Measurement

RANGE	RESOLUTION	ACCURACY
20.00Ω	0.01Ω	±(1.5% +3 dgts)
200.0Ω	0.1Ω	
2000Ω	1Ω	
20.00kΩ	0.01kΩ	

1. Accuracies apply from 0 to 100% of range  
2. Overload Protection: AC 2V rms or DC  
3. Open Circuit Test Voltage: > 4.0V, < 8V  
4. Short Circuit Current: > 200.0 mA

### Insulation Resistance

Output Voltage	Display Range	Resolution	ACCURACY
50V (0 to 20%)	0.01 to 6MΩ	0.01MΩ	±(3% +5dgts)
	6 to 50MΩ	0.1MΩ	
100V (0 to 20%)	0.01 to 6MΩ	0.01MΩ	±(3% +5dgts)
	6 to 60MΩ	0.1MΩ	
	60 to 100MΩ	1MΩ	
250V (0 to 20%)	0.1 to 60MΩ	0.1MΩ	±(1.5% +5dgts)
	60 to 250MΩ	1MΩ	
500V (0 to 20%)	0.1 to 60MΩ	0.1MΩ	±(1.5% +5dgts)
	60 to 500MΩ	1MΩ	
1000V (0 to 20%)	0.1 to 60MΩ	0.1MΩ	±(1.5% +5dgts)
	60 to 600MΩ	1MΩ	
	0.6 to 2.0GΩ	0.1GΩ	

1. Measurement Range: 0.01MΩ to 2GΩ  
2. Test Voltages: 50, 100, 250, 500, 1000V  
3. Test Voltage Accuracy: 0 to +20%  
4. Short-Circuit Test Current: 1mA nominal  
5. Auto Discharge: Discharge time <0.5 sec. for C = 1μF or less  
6. Live Circuit Detection: Inhibit test terminal voltage >30V prior to initialization of test  
7. Maximum Capacitive Load: Operable with up to 1μF load