



81K, 81K-TRMS

### Electrical Specifications

#### DC Voltage

Range	Resolution	Accuracy	Note
80mV	1μV	±(0.05%rdg+10)	Input impedance : 80mV - 800mV > 1000MΩ 8V - 1000V : 10MΩ
800mV	10μV		
8V	0.1mV		
80V	1mV		
800V	10mV	±(0.08%rdg+10)	
1000V	0.1V		

#### AC Voltage (True RMS) for Model 81K-TRMS only

Range	Resolution	Accuracy			
		50Hz / 60Hz	50Hz - 1kHz	1kHz - 10kHz	10kHz - 20kHz
80mV	1μV	±(0.8%rdg+10)	±(1.2%rdg+10)	±(3.0%rdg+10)	±(8.0%rdg+10)
800mV	10μV				±(5.0%rdg+10)
8V	0.1mV	50Hz - 400Hz: ±(1.0%rdg+5)			
80V	1mV				
750V	10mV				

Input Impedance : 8mV - 800mV > 1000MΩ; 8V - 1000V 10 MΩ; Parallel capacitance < 100pF

#### AC Voltage Average (60Hz Sine Wave Calibrating)

Range	Resolution	Accuracy			
		50Hz / 60Hz	50Hz - 1kHz	1kHz - 10kHz	10kHz - 20kHz
80mV	1μV	±(1.0%rdg+8)	±(1.5%rdg+8)	±(4.0%rdg+8)	±(8.0%rdg+8)
800mV	10μV				
8V	0.1mV	±(1.0%rdg+8)	±(3.0%rdg+8)	±(5.0%rdg+8)	
80V	1mV				
750V	10mV				

Input Impedance : 8mV - 800mV > 1000MΩ; 8V - 1000V 10 MΩ; Parallel capacitance < 100pF

#### DC Current

Range	Resolution	Accuracy	Note
80mA	1μA	±(0.5%rdg+10)	Fuses : F 800mA/250V F 20A/250V Voltage drop : ≤ 800mV
800mA	10μA		
8A	0.1mA		
20A	1mA		

### Features

- Multi-Display : Primary 80000, Secondary 80000, Bargraph 20 Segments
- Basic DC Accuracy : 0.05%
- mV Impedance : > 1000MΩ
- More than 50 Measuring Functions
- Frequency Measurement : 0.5Hz to 8.0000MHz
- 16 Frequency Points, 1% to 99% Duty
- Selectable Square Wave Output
- Analyzing Component of Current or Voltage Signal
- Resistance : 0.1Ω to 80MΩ, 10MΩ to 8000MΩ
- Capacitance : 1nF to 100uF
- Temperature : -50°C to 1372°C, -58°F to 2502°F
- dBm 20 Types of Reference Impedance
- Auto Data Hold/Peak Hold
- Relative Measurement
- 36 Hours Dynamic Recording : MAX/MIN/AVG/MAX-MIN
- Communication : Isolated Optical RS-232
- Timer for Measurement
- Backlight Display
- Auto Power Off

### General Specifications

- Power : 9V Battery
- Weight : 650 gms (approx.)
- Dimension : 190 (L) x 90 (W) x 37 (D) mm
- Safety / Compliance : IEC 61010 CATII 1000V CATIII 600V
- Accessories : Instruction Manual, Pair of Test Leads, Holster, Battery, RS-232 Interface Cable, K Type Thermocouple (upto 260°C) & Software CD

## DMM Utility Software

Displays Graphs, Real Time Values, Analog Indication and Digital Values simultaneously.

Also has special feature like :

- Range
- MAX / MIN / AVG / MAX - MIN
- Timer
- Hold / Peak - Hold
- Secondary View
- REL
- Alarm
- Auto Scheduler



AC Current (True RMS) for Model 81K-TRMS only				
Range	Resolution	Accuracy (50Hz-2kHz)	Note	
80mA	1μA	±(0.8%rdg+10)	Fuses : F 800mA/250V F 20A/250V Voltage drop : ≤ 800mV	
800mA	10μA			
8A	0.1mA			
20A	1mA			
AC Current Average (60Hz Sine Wave Calibrating)				
Range	Resolution	Accuracy	Note	
80mA	1μA	50Hz-500Hz ±(0.8%rdg+10)	Fuses : F 800mA/250V F 20A/250V Voltage drop : ≤ 800mV	
800mA	10μA			
8A	0.1mA			
20A	1mA			
dBm				
Function	Range	Accuracy	Resolution	
dBm	-80.00dBm - +80.00dBm	±1.0%rdg	0.01dBm	
Resistance (Ω)				
Range	Resolution	Accuracy	Note	
800Ω	0.01Ω	±(0.3%rdg+10)	Overload protection : 250V RMS	
8kΩ	0.1Ω			
80kΩ	1Ω			
800kΩ	10Ω			
8MΩ	100Ω			
80MΩ	1kΩ	±(2.5%rdg+8)	60MΩ -80MΩ : ±(3.5%rdg+10)	
Diode				
Function	Range	Accuracy	Resolution	Note
Diode	8.0000V	±(3.0%rdg+5)	0.0001V	Diode positive Voltage drop Overload protection : 250V RMS
Frequency (Hz)				
Function	Range	Accuracy	Resolution	Note
Frequency	999.99Hz	±(0.05% rdg+5)	0.01Hz	Overload protection : 250V RMS Sensitivity : 0.7V RMS
	9.9999kHz		0.1Hz	
	99.999kHz		1Hz	
	999.99kHz		10Hz	
	8.0000MHz		100Hz	
Capacitance				
Range	Resolution	Accuracy	Note	
1nF	1pF	±(5.0%rdg+10)	Overload protection : 250V RMS	
10nF	10pF			
100nF	100pF	±(2.5%rdg+10)		
1μF	1nF			
10μF	10nF	±(3.5%rdg+10)		
100μF	100nF			
Square Wave output				
□□□ OUT		Description		
Voltage amplitude		100mV approx.		
Frequency		0.5Hz ~ 5000Hz		
Duty cycle		1% ~ 99%		
Temperature				
Temp	Accuracy	Resolution	Note	
-50°C ~ 1372°C	±(2.5% rdg+8)	1°C	(with Optional Type K Thermocouple)	
-58°F ~ 2502°F		1°F		