Specifications

Accuracy is specified for a period of one year after calibration, at 18°C to 28°C (64°F to 82°F) with relative humidity to 90%. AC conversions are ac-coupled, average responding, and calibrated to the rms value of a sine wave input. Accuracy specifications are given as follows:

±([% of reading] + [number of least significant digits])

Function	Range	Resolution	Accuracy
Temperature	-10°C to 400°C 14°F to 752°F	0.1°C or 0.2°F	±(1.0% + 0.8°C) typical ±(1.0% + 1.5°F) typical
(Type K Thermocouple)	-40°C to -10°C -40°F to 14°F	0.1°C or 0.2°F	±(5.0% + 1.5°C) typical ±(5.0% + 3.3°F) typical
Error does not include Type K Thermocouple errors.			

Function	Range	Resolution	Accuracy
V~ (50 to 400 Hz)	4000 mV[1] 4.000V 40.00V 400.0V 600V	1 mV 0.001V 00.01V 000.1V 1V	±(1.9% + 3) ±(1.9% + 3) ±(1.9% + 3) ±(1.9% + 3) ±(1.9% + 3)
V⎓	4000 mV[1] 4.000V 40.00V 400.0V 600V	1 mV 0.001V 00.01V 000.1V 1V	±(0.9% + 2) ±(0.9% + 2) ±(0.9% + 1) ±(0.9% + 1) ±(0.9% + 1)
Ω	400.0Ω 4.000 kΩ 40.00 kΩ 400.0 kΩ 4.000 MΩ 40.00 MΩ	0.1Ω 0.001 kΩ 0.01 kΩ 0.1 kΩ 0.001 MΩ 0.01 MΩ	±(0.9% + 2) ±(0.9% + 1) ±(0.9% + 1) ±(0.9% + 1) ±(0.9% + 1) ±(1.5% + 3)
⊣⊢	1.000 µF 10.00 µF 100.0 µF 10000 µF	0.001 µF 0.01 µF 0.1 µF 1 µF	±(1.9% + 2) ±(1.9% + 2) ±(1.9% + 2) ≤1000 µF ±(1.9% + 2) >1000 µF ±(10% + 90) typical
))|—▶|—	2.000V	0.001V	±(1.9% + 2)[2]

1. The 4000 mV range can be entered only in manual range mode. Use the 4000 mV range with accessories.
2. The beeper is guaranteed to come on at <25Ω and turn off at >250Ω. The meter detects opens or shorts ≥250 µs.

Function	Range	Resolution	Accuracy	Burden Voltage
μÃ (50 Hz to 400 Hz)	0 to 200 μA	0.1 μA	±(2% + 3 counts)	<5 mV/μA
μÃ	0 to 200 μA	0.1 μA	±(1% + 2 counts)	<5 mV/μA

Function	Overload Protection[1]	Input Impedance (Nominal)		
V~	600V rms	>5 MΩ <100 pF V•Check and LoZ = >2 kΩ <200 pF (ac coupled)[2]		
V⎓	600V rms	>10MΩ <100 pF V•Check and LoZ = >2 kΩ <200 pF[2]		
		Common Mode Rejection Ratio (1 kΩ Unbalanced)	**Normal Mode Rejection**	
V~	600V rms	>60 dB at dc 50 or 60 Hz		
V⎓	600V rms	>100 dB at dc, 50 or 60 Hz	>50 dB at 50 Hz or 60 Hz	
		Open Circuit Test Voltage	**Full Scale Voltage To 4.0 MΩ**	**40 MΩ**
Ω	600V rms	<1.5V dc	<450 mV dc	<1.5V dc
→|←	600V rms	2.4-3.0V dc	2.400V dc	
		Short Circuit Current		
Ω	600V rms	<500 μA		
→|←	600V rms	0.95 mA (typical)		

1. 3 x 10^6 V Hz maximum
2. ≅2 kΩ input impedance up to 50V. Impedance increases with input voltage to >300 kΩ at 600V.

MIN MAX Recording Accuracy and Response Time

Specified accuracy of the measurement function ±12 digits in dc for changes >200 ms in duration (±40 digits in ac). Typical 100 ms response to 80%.
Example 1: This would mean ±1.2° when recording temperature. Example 2: This would mean ±1.2 μA when recording μA or ±12A if used with a dc amp probe (with a mV input).

MIN MAX Recording with Elapsed Time

Elapsed Time	Resolution	Accuracy
0 to 100 hours (99:59)	1 minute	0.3% typical

Maximum Voltage Between any Terminal and Earth Ground:	600V rms
Display:	3 3/4-digits, 4000 counts, updates 4/sec
Operating Temperature:	-10°C to 50°C (14°F to 122°F)
Storage Temperature:	-30°C to 60°C (-22°F to 140°F) indefinitely (to -40°C (-40°F) for 100 hrs)
Temperature Coefficient:	(.1 x specified accuracy)/°C (<18°C or >28°C)
Relative Humidity:	0% to 90% (-10°C to 35°C; 14°F to 95°F) 0% to 70% (35°C to 50°C; 95°F to 122°F)
Battery Type:	9V, NEDA 1604 or IEC 6F22
Battery Life:	650 continuous hours with alkaline 450 continuous hours with carbon-zinc
Shock:	1 meter drop 6 sides.
Vibration:	Class II vibration MIL-PRF-28800F
Size (H x W x L):	3.46 cm x 7.05 cm x 14.23 cm (1.35 in x 2.75 in x 5.55 in)
Weight:	286g (10 oz)
Safety:	Designed to Protection Class II requirement of UL3111, ANSI/ISA-S82, CSA C22.2 No 231, and VDE 0411, and IEC 1010 overvoltage Category III (CAT III, 600 Volts).
EMI Regulations:	Complies with FCC Part 15, Class B, and VDE 0871B. Trademark of TÜV Product Services. Complies with EN 61010-1: 1993.
Certifications:	 TUV, UL and VDE