

SPECIFICATIONS

DC VOLTS (5½ Digits)

RANGE	RESOLUTION	INPUT RESISTANCE	ACCURACY ¹ ±(%rdg + counts)		
			24 Hours ² 23° ± 1°C	90 Days 18°-28°C	1 Year 18°-28°C
300 mV	1 µV	>1 GΩ	0.004 + 3 ³	0.009 + 3 ³	0.012 + 3 ³
3 V	10 µV	>1 GΩ	0.003 + 2	0.006 + 2	0.007 + 2
30 V	100 µV	11 MΩ	0.004 + 2	0.008 + 2	0.009 + 2
300 V	1 mV	10 MΩ	0.004 + 2	0.008 + 2	0.009 + 2

¹For 4½-digit accuracy, count error is 5 (except 15 on 300mV range).

²Relative to calibration standards.

³When properly zeroed.

CMRR: >120dB at dc, 50Hz or 60Hz (±0.05%) with 1kΩ in either lead.

NMRR: >60dB at 50Hz or 60Hz (±0.05%).

MAXIMUM ALLOWABLE INPUT: 300V rms or 425V peak, whichever is less.

OHMS (5½ Digits)

RANGE	RESOLUTION	NOMINAL I-SHORT	ACCURACY ¹ ±(%rdg + counts)		
			24 Hours ² 23° ± 1°C	90 Days 18°-28°C	1 Year 18°-28°C
300 Ω	1 mΩ	1.7 mA	0.005 + 4 ³	0.009 + 4 ³	0.012 + 4 ³
3 kΩ	10 mΩ	1.7 mA	0.004 + 2	0.008 + 3	0.009 + 3
30 kΩ	100 mΩ	160 µA	0.004 + 2	0.008 + 3	0.009 + 3
300 kΩ	1 Ω	50 µA	0.014 + 2	0.024 + 3	0.026 + 3
3 MΩ	10 Ω	5 µA	0.02 + 2	0.03 + 3	0.03 + 3
30 MΩ	100 Ω	0.5 µA	0.1 + 5	0.12 + 5	0.12 + 5
300 MΩ	1 kΩ	0.5 µA	2.0 + 5	2.0 + 5	2.0 + 5

¹For 4½-digit accuracy, count error is 5 (except 15 on 300Ω range).

²4-wire accuracy, 300Ω-30kΩ ranges.

³When properly zeroed.

⁴Relative to calibration standards.

CONFIGURATION: Automatic 2- or 4-wire.

MAXIMUM ALLOWABLE INPUT: 300V rms or 425V peak, whichever is less.

OPEN CIRCUIT VOLTAGE: <5.5V.

TRMS AC VOLTS (5½ Digits)

RANGE	RESOLUTION	ACCURACY ¹ ±(%rdg + counts) 1 Year, 18°-28°C			
		20 Hz -50 Hz ²	50 Hz -200 Hz ²	200 Hz -20 kHz ²	20 kHz -100 kHz ³
300 mV	1 µV	2 + 100	0.35 + 100	0.15 + 200	2.0 + 300
3 V	10 µV	2 + 100	0.35 + 100	0.15 + 200	1.5 + 300
30 V	100 µV	2 + 100	0.35 + 100	0.15 + 200	1.5 + 300
300 V	1 mV	2 + 100	0.35 + 100	0.15 + 200	1.5 + 300

¹For 4½-digit accuracy, divide count error by 10; 4½-digit specifications apply for inputs >200Hz.

²Sinewave inputs >2000 counts.

³Sinewave inputs >20,000 counts.

RESPONSE: True root mean square, ac coupled.

CREST FACTOR (ratio of peak to rms): Up to 3:1 allowable.

NON-SINUSOIDAL INPUTS (>20,000 counts):

For rectified sine wave, add 0.3% of reading to above specifications for fundamental frequencies <20kHz.

For pulse waveforms, add 0.3% of reading for fundamental frequencies <1kHz, or 3.5% for frequencies <10kHz.

INPUT IMPEDANCE: 1MΩ shunted by <100pF.

MAXIMUM ALLOWABLE INPUT: 300V rms or 425V peak, 10⁷V•Hz, whichever is less.

CMRR: >60dB at 50Hz or 60Hz (±0.05%) with 1kΩ in either lead.

SETTLING TIME: 1 second to within 0.1% of change in reading.

dB (ref = 1V):

INPUT	RESOLUTION	ACCURACY ±dB 1 Year, 18°-28°C	
		20 Hz-20 kHz	20 kHz-100 kHz
-34 to +49 dB (20 mV to 300 V)	0.01 dB	0.2	0.4
-54 to -34 dB (2 mV to 20 mV)	0.01 dB	1.1	—

DC AMPS (5½ Digits)

RANGE	RESOLUTION	ACCURACY ¹	MAXIMUM
		± (%rdg + counts) 1 Year, 18°-28°C	VOLTAGE BURDEN
30 mA	100 nA	0.05 + 15	0.4 V
3 A	10 µA	0.1 + 15	2 V

¹For 4½-digit accuracy, count error is 20.

MAXIMUM ALLOWABLE INPUT: 3A. Protected with 3A, 250V fuse accessible from front panel.

TRMS AC AMPS (5½ Digits)

RANGE	RESOLUTION	ACCURACY ¹ ±(%rdg + counts) 1 Year, 18°-28°C		MAXIMUM VOLTAGE BURDEN
		20 Hz-45 Hz	45 Hz-10 kHz	
30 mA	100 nA	2 + 100	0.6 + 100	0.4 V
3 A	10 µA	2 + 100	0.6 + 100	2 V

¹Inputs >2000 counts. For 4½-digit accuracy, divide count error by 10; 4½-digit specifications apply for inputs >200Hz.

RESPONSE: True root mean square, ac coupled.

CREST FACTOR (ratio of peak to rms): Up to 3:1 allowable at ½ full range.

NON-SINUSOIDAL INPUTS: Specified accuracy for fundamental frequencies <1kHz.

MAXIMUM ALLOWABLE INPUT: 3A. Protected with 3A, 250V fuse accessible from front panel.

SETTLING TIME: 1 second to within 0.1% of final reading.

dB (ref = 1mA):

INPUT	RESOLUTION	ACCURACY ±dB 1 Year, 18°-28°C	
		20 Hz-10 kHz	20 Hz-10 kHz
-14 to +69 dB (200 µA to 3 A)	0.01 dB	0.6	0.6