

# SPECIFICATIONS

DC VOLTS (5½ Digits)						
RANGE	RESOLUTION	INPUT RESISTANCE	ACCURACY <sup>1</sup>			
			±(%rdg + counts)			
			24 Hours <sup>2</sup> 23° ± 1°C	90 Days 18°-28°C	1 Year 18°-28°C	
300 mV	1 µV	>1 GΩ	0.004 + 3 <sup>3</sup>	0.009 + 3 <sup>3</sup>	0.012 + 3 <sup>3</sup>	
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	

<sup>1</sup>For 4½-digit accuracy, count error is 5 (except 15 on 300mV range).  
<sup>2</sup>Relative to calibration standards.  
<sup>3</sup>When 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 <sup>1</sup>			
			±(%rdg + counts)			
			24 Hours <sup>4</sup> 23° ± 1°C	90 Days 18°-28°C	1 Year 18°-28°C	
300 Ω	1 mΩ	1.7 mA	0.005 + 4 <sup>3</sup>	0.009 + 4 <sup>3</sup>	0.012 + 4 <sup>3</sup>	
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	

<sup>1</sup>For 4½-digit accuracy, count error is 5 (except 15 on 300Ω range).  
<sup>2</sup>4-wire accuracy, 300Ω-30kΩ ranges.  
<sup>3</sup>When properly zeroed.  
<sup>4</sup>Relative 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 <sup>1</sup>				
		±(%rdg + counts) 1 Year, 18°-28°C				
		20 Hz -50 Hz <sup>2</sup>	50 Hz -200 Hz <sup>2</sup>	200 Hz -20 kHz <sup>2</sup>	20 kHz -100 kHz <sup>3</sup>	
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	

<sup>1</sup>For 4½-digit accuracy, divide count error by 10; 4½-digit specifications apply for inputs > 200Hz.  
<sup>2</sup>Sinewave inputs > 2000 counts.  
<sup>3</sup>Sinewave 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, 10<sup>7</sup>V•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 <sup>1</sup>		MAXIMUM VOLTAGE BURDEN
		±(%rdg + counts) 1 Year, 18°-28°C		
30 mA	100 nA	0.05 + 15		0.4 V
3 A	10 µA	0.1 + 15		2 V

<sup>1</sup>For 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 <sup>1</sup>		MAXIMUM VOLTAGE BURDEN
		±(%rdg + counts) 1 Year, 18°-28°C		
		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

<sup>1</sup>Inputs > 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 ¾ 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	
-14 to +69 dB (200 µA to 3 A)	0.01 dB	0.6	