

# Portable Accelerometer Calibrator

## MODEL 5900

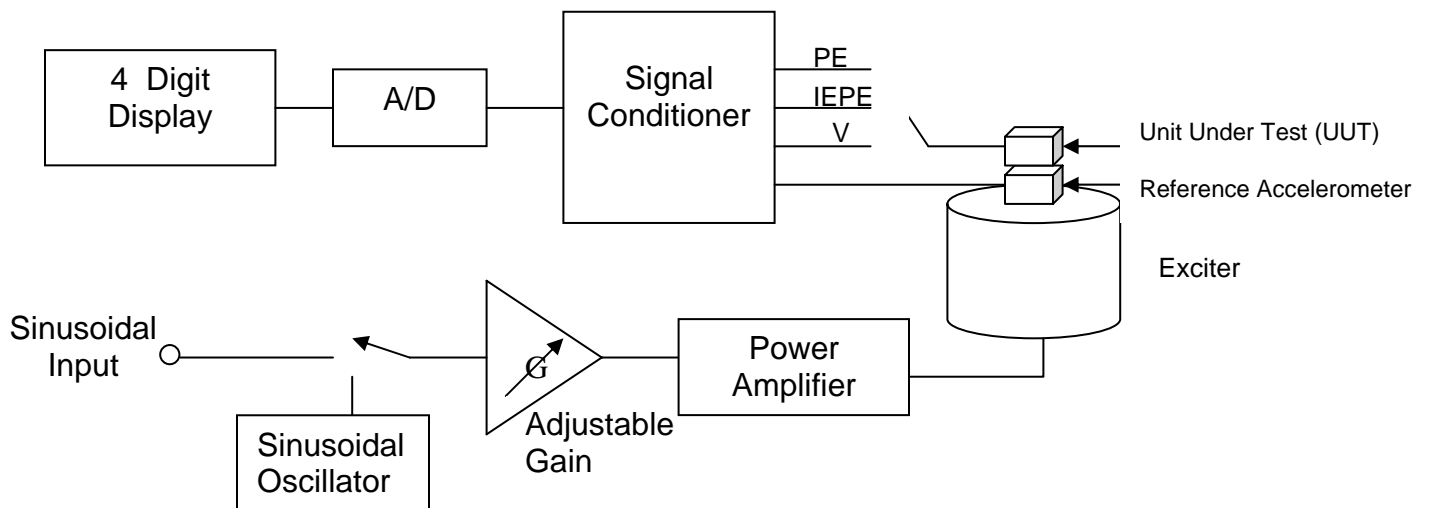
- Measures Sensitivity of PE, IEPE and Voltage Accelerometer Types
- Displays UUT and Reference Accelerometer Output
- Adjustable Vibration Excitation Amplitude
- Internal or External Sinusoidal Oscillator



### Description

The VIP Sensors Portable Accelerometer Calibrator Model 5900 measures and displays the output of Piezoelectric (PE), Piezoelectric with Integral Electronics (IEPE, constant current) and Voltage accelerometer types when subjected to a known excitation. A built-in shaker and reference accelerometer provide a known vibration signal. The vibration amplitude is adjustable from 0.02 g to 2 g (0.2 to 19.99 m/s<sup>2</sup>) rms and is accurately shown in the 4 digit display.

The user has the option to use the internal sinusoidal oscillator set at 100 Hz or to use an external oscillator with frequencies from 50 Hz to 2 kHz. The maximum weight of the accelerometer under test is 7 ounces (200 grams) for 1 g excitation.



VIP Sensors Model 5900 Functional Diagram

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### SPECIFICATIONS

The following performance specifications are at +75°F (+24°C), unless otherwise noted.

	<b>UNITS</b>	
<b>OUTPUT</b>		
Acceleration Amplitude	g (m/s <sup>2</sup> )	0.02 to 2 ±5% (0.2 to 19.99)
Vibration Acceleration Freq	Hz	100 ±1.5%
Output Waveform		Sinusoidal
Output Waveform Distortion	%	≤ 3
<b>EXTERNAL EXCITATION INPUT</b>		
Frequency	Hz	50 to 2,000 (sine wave)
Voltage	V rms	1.0 maximum
<b>UNIT UNDER TEST (UUT)</b>		
Weight	oz (grams)	7.1 (200) maximum for 1 g excitation
Piezoelectric (PE) Type		1000 pC maximum
PE with Integral Electronics		13 Vdc Compliance Voltage
Voltage type		1000 mV maximum
<b>POWER SUPPLY</b>		
Power Source	Vac	110 ±10%, 60Hz, 0.3A or 220 ±10%, 50Hz, 0.2A (switch selectable)
<b>ENVIRONMENT</b>		
Temperature	°F (°C)	Operating: +32 to +104 (0 to +40) Storage: -67 to +185 (-55 to +85)
Humidity	%	95 maximum relative humidity
<b>PHYSICAL CHARACTERISTICS</b>		
Dimensions	in (mm)	5.2H × 9.3W × 11.8D (133 × 236 × 300)
Weight	lbs (kg)	11 (5)
UUT Sensor Mounting		10-32 screw
<b>ACCESSORIES</b>		
		Low Noise Cable Mounting Stud