



# Industrial Portable Vibration Calibrator

Calibrate accelerometers, velocity sensors, and eddy current sensors for end-to-end functionality and alarm trip point confirmation



## Industrial Portable Vibration Calibrator Model 699A06

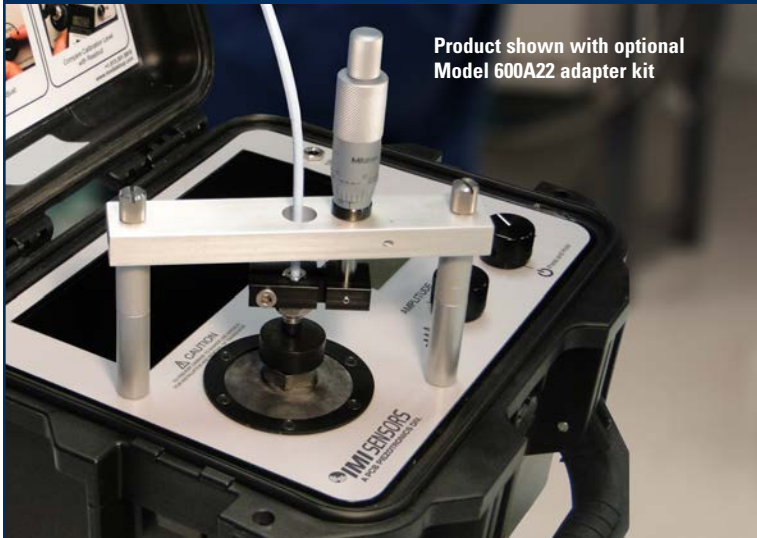
- Small and completely self-contained, ideal for field check of accelerometers, velocity transducers and eddy current sensors
- Ruggedized, weatherproof enclosure dramatically improves durability and portability
- Battery-powered unit offers extended life and enhanced protection against full discharge
- Precision quartz reference accelerometer and conditioning electronics for superior control and stability
- Rugged shaker element design with carbon fiber composite armature flexures
- Provides NIST traceable transducer verification across a wide frequency and amplitude range

The 699A06 Industrial Portable Vibration Calibrator is the ideal tool to field check accelerometers, velocity transducers and eddy current sensors over a wide operating frequency and amplitude range. The unit is a small, handy, completely self-contained vibration reference source which can be conveniently used to validate the entire channel of transducers through measurement, monitoring or recording systems. Packaged in a ruggedized, weatherproof enclosure with two press and pull latches and padlockable clasps, the 699A06 is always ready for travel to test sites.

With an integral, precision quartz reference accelerometer, the shaker table is built with robust carbon fiber composite armature flexure supports. Closed loop level control gives the 699A06 superior quality vibration calibration from 7 Hz to 10 kHz compared with other portable field calibrators.



# Industrial Portable Vibration Calibrator



Product shown with optional Model 600A22 adapter kit



Product shown with Model 6XX sensor

## Technical Specifications

Model Number	Model 9100D
Frequency Range (operating, 100 gram payload)	7 Hz to 10 kHz 420 to 600,000 cpm
Maximum Amplitude (100 Hz with no payload)	20 g pk (196 m/s <sup>2</sup> pk)
	15 in/s pk (380 mm/s pk) 50 mils pk-pk (1.27 mm pk-pk)
Maximum Payload [1]	800 gram
<b>Accuracy of Readout (measured with 10 gram quartz reference accelerometer)</b>	
Acceleration (30 Hz to 2 kHz)	±3%
Acceleration (7 Hz to 10 kHz)	±1 dB
Velocity (30 Hz to 500 Hz)	±3%
Displacement (30 Hz to 150 Hz)	±3%
Amplitude Linearity (100 gram payload, 100 Hz)	<1% up to 10 g pk
Waveform Distortion (100 gram payload, 30 Hz to 2 kHz)	5% THD up to 5 g pk
<b>Units of Readout</b>	
Acceleration	g pk, g rms, m/s <sup>2</sup> pk, m/s <sup>2</sup> rms
Velocity	in/s pk, mm/s pk
Displacement	mils pk-pk, mm pk-pk
Frequency	Hz, CPM
<b>Power Requirements</b>	
Internal Battery (sealed solid gel lead acid)	12 VDC, 4 amp hours
AC Power (for recharging battery)	110-240 Volts, 50-60 Hz
Operating Battery Life [2]	
100 gram payload, 100 Hz 1 g pk	18 hours
100 gram payload, 100 Hz 10 g pk	1 hour

Temperature	Model 9100D
Operating	32 to 122 °F 0 to 50 °C
<b>Physical</b>	
Dimensions (H x W x D)	8.5" x 12" x 10" 22 cm x 30.5 cm x 28 cm
Weight	18 lbs 8.2 kg
Sensor Mounting Platform Thread Size	1/4-28
<b>Notes</b>	
[1] Operating range reduced at higher payloads. Reference manual for full details. [2] As shipped from factory in new condition.	
<b>Accessory Products for 699A06</b>	
600A22	Eddy current sensor adapter kit, supports probes with common case threads ranging from M6 to 3/8" adapter. Includes Mitutoyo micrometer and nickel plated 4140 steel target.
600A23	Eddy current sensor adapter kit, supports probes with common case threads ranging from M6 to 3/8". Includes Mitutoyo micrometer (metric) and nickel plated 4140 steel target.
600A24	Mounting accessory kit for 699A06 Portable Vibration Calibrators to adapt to 1/4-28 threaded mounting platforms. Includes studs/inserts (1/4-28, 10-32, 6-32 and 5-40) and bases (for adhesive, magnetic and custom thread patterns).
600A25	18 Volt, 1 amp power supply/charger for 9100D Portable Vibration Calibrator, universal 100-240 V, 50/60 Hz.
600A26	Replacement battery for 699A06 Portable Vibration Calibrators.



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IMI Sensors designs and manufactures a full line of accelerometers, sensors, vibration switches, vibration transmitters, cables and accessories for predictive maintenance, continuous vibration monitoring, and machinery equipment protection. Products include rugged industrial ICP<sup>®</sup> accelerometers, 4-20 mA industrial vibration sensors and transmitters for 24/7 monitoring, electronic and mechanical vibration switches, the patented Bearing Fault Detector, high temperature accelerometers to +1300 °F (+704 °C), 2-wire Smart Vibration Switch, and the patented Reciprocating Machinery Protector. CE approved and intrinsically safe versions are available for most products.

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