



MODELS 699B02,
699B06 & 699B07

PORTABLE VIBRATION CALBRATOR



- Provides NIST traceable verification
- Small and completely self-contained

TYPICAL APPLICATIONS

- Accelerometer verification
- Verifies system performance
- Suitable for all industries

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CALIBRATE VIBRATION SENSORS IN THE FIELD

Model 699B02 is a portable, battery-powered, handheld shaker for verifying the output of industrial vibration sensors and confirming operation of interconnecting cables, switching devices, and monitoring systems. The unit delivers a controlled, 1 g rms or peak acceleration to test accelerometers and vibration sensors weighing up to 250 grams and is ideal for field troubleshooting predictive maintenance and condition based monitoring systems.

Models 699B06 and 699B07 are ideal to field-check accelerometers, velocity transducers and proximity probes over a wide operating frequency (5 Hz to 10 kHz) and amplitude range. Calibrators are packaged in a ruggedized, weatherproof enclosure. With an integral quartz reference accelerometer, the shaker table is built with robust carbon fiber composite armature flexure supports.

PORTABLE VIBRATION CALIBRATORS

Models 699B06 & 699B07

SPECIFICATIONS		
Model Number	699B06	699B07
Performance		
Operating Frequency Range (100g payload)	5 to 10000 Hz 300 to 600000 cpm	
Acceleration Amplitude Range (50 Hz, 10g payload)	0 to 20 g pk 0 to 196 m/s ² pk	
Velocity Amplitude Range (50 Hz, 10g payload)	0 to 20 ips pk 0 to 500 mm/s pk	
Displacement Amplitude Range (50 Hz, 10g payload)	0 to 150 mils pk-pk 0 to 3.8 mm pk-pk	
Acceleration Amplitude Range (50 Hz, 500g payload)	0 to 2.5 g pk 0 to 24.5 m/s ² pk	
Velocity Amplitude Range (50 Hz, 500g payload)	0 to 3.5 ips pk 0 to 90 mm/s pk	
Maximum Payload	28.2 oz 800 gm	
Display Units and Accuracy		
Acceleration Display Units	g or m/s ² , pk or RMS	
Velocity Display Units	ips or mm/s, peak or RMS	
Displacement Display Units	mils or μ m, peak-to-peak	
Frequency Display Units	Hz or cpm	
Acceleration Accuracy (5 to 10 Hz)	\pm 5%	
Acceleration Accuracy (10 to 10000 Hz)	\pm 3%	
Velocity Accuracy (10 to 1000 Hz)	\pm 3%	
Displacement Accuracy (30 to 150 Hz)	\pm 3%	
Amplitude Linearity Accuracy (100 gram payload, 100 Hz, up to 10 g pk)	1%	
Distortion Accuracy (100 gram payload, 30 to 2000 Hz, up to 5 g pk)	< 5%	
Input/Output		
Test Operation	Manual (closed loop) or semi-automatic (upload via USB port)	
Test Sensor Sensitivity	N/A	mV/EU, mA/EU, μ A/EU, pC/EU
Test Sensor Input	N/A	Voltage, ICP [®] , Modulated Current, Charge
Bias Fault Indicator (ICP [®] Sensors)	N/A	Yes
External Source Input (Maximum)	1 VAC RMS	
Monitor Reference Output	10 mV/g Quartz Reference Accelerometer, BNC jack output	
Memory		
Storage	Maximum 500 calibration points	
Points per Record	30 calibration data points	
Sensor Information	N/A	Model, serial number, mounting, notes
USB Port Export (FAT32 Flash Drive)	N/A	Calibration records
Export File Format	N/A	Comma-separated values (CSV)
Environmental		
Operating Temperature Range	+32 to +122 °F 0 to +50 °C	
Electrical		
Power Required (Standard)	Sealed solid gel acid battery, 12 VDC, 4 A	
Power Required (Input from Charger)	18 VDC, 1A	
Power Required (AC Power for Recharging Battery)	110-240 V, 50-60 Hz	
Battery Life	18 hr (100g payload, 100 Hz at 1 g pk), 1 hr (100g payload, 100 Hz at 10 g pk)	
Physical		
Mounting Thread	1/4-28 Female	
Size (H x W x D)	7.7 x 11.8 x 9.8 in 196.0 x 300.0 x 249.0 mm	
Weight (With Battery)	18 lb 8.2 kg	

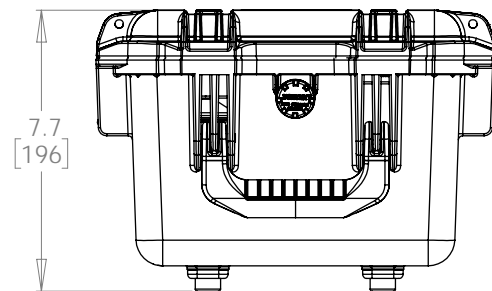
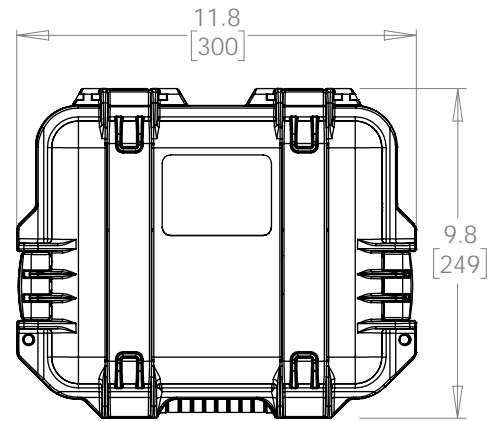


SUPPLIED ACCESSORIES

Description	Model
(1) Mounting Wrench	600A34
(1) Power Supply and Plug Adapter Kit	600A25
(1) 1/4-28 to 1/4-28 Mounting Stud with Shoulder	081B20
(1) 10-32 to 1/4-28 Mounting Stud	081A08
(1) M8 x 1.25 Male to 1/4-28 Male Mounting Stud	M081A63
(1) M8 x 1.25 Female Through-Hole Mounting Pad	600A54
(1) M8 x 1.00 Male to 1/4-28 Male Mounting Stud	081M165
(1) M8 x 1.00 Female Through-Hole Mounting Pad	600A55
(1) Mounting Plate for 3/4-Hole High Temperature Sensors	600A56
(1) Mounting Plate for 3/4-Hole High Temperature Sensors	600A57
(1) 1/4" NPT Female to 1/4-28" Male Mounting Adapter	080A242

OPTIONAL ACCESSORIES

Description	Model
(1) Mounting Kit	600B24
(1) Proximity Probe Adapter Kit for Probes with Metric Tip	600B23
(1) Proximity Probe Adapter Kit for Probes with Imperial Tip	600B22
(1) Replacement Battery	600A26
(1) 24 VDC Power Supply for 4-20 mA Loop-Powered Vibration Transmitters & Modulated Current Vibration Sensors	600A39
(1) 15 VDC Power Supply for Pruftechnik CLD Vibration Sensors	600M151



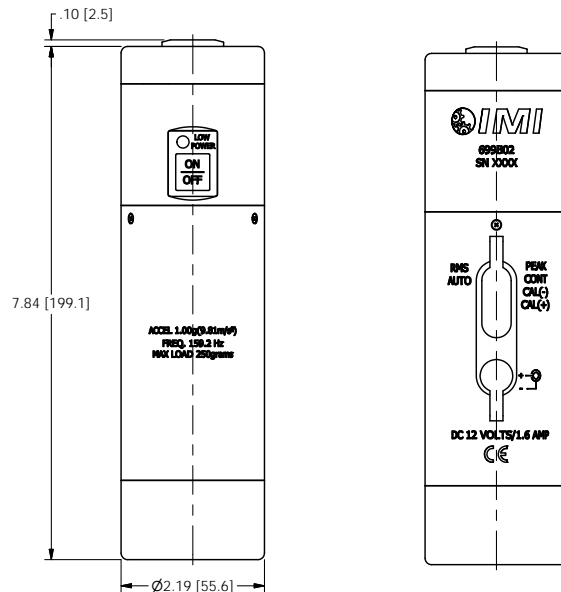
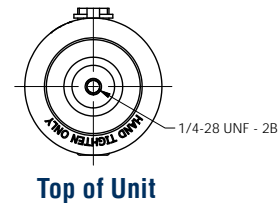
HANDHELD SHAKER

Model 699B02

SPECIFICATIONS	
Model Number	699B02
Performance	
Operating Frequency ($\pm 1\%$)	159.2 Hz 9552 cpm
Acceleration Amplitude	1 g rms 9.81 m/s ² rms
Velocity Amplitude	0.39 in/sec rms 9.81 mm/s rms
Displacement Amplitude	0.39 mils rms 9.81 μ m rms
Maximum Payload	8.8 oz 250 gm
Transverse Amplitude	$\leq 3\%$
Automatic Switch-Off Time	1 to 2.5 minutes
Operating Cycles (250 gram load)	90 cycles
Readout Accuracy	
Acceleration (159.2 Hz)	$\pm 3\%$
Distortion	$< 7\%$ (0 to 250 g payload)
Environmental	
Operating Temperature Range	+15 to +130 °F -10 to +55 °C
Electrical	
Power Required (Standard)	(4) AA batteries (Supplied)
Power Required (Optional, $\pm 5\%$)	12 VDC, 1.67 A
Battery Life	2.3 hr (250g payload, 159.2 Hz at 1 g rms)
Ramp-Up Time	≤ 3 seconds
Physical	
Mounting Thread	1/4/2028
Maximum Mounting Torque	10 in-lb 112 N-cm
Size (Diameter x Height)	2.2 x 7.8 in 56 x 200 mm
Weight (With Batteries)	31 oz 900 gm

SUPPLIED ACCESSORIES	
Description	Model
(2) 1/4-28 to 1/4-28 Mounting Studs	081A40
(1) 10-32 to 1/4-28 Mounting Stud	081A08
(1) 1/4-28 to M6x1 Mounting Stud	M081A19
(1) Calibration Mass	080A136
(1) Battery Pack	073A15

OPTIONAL ACCESSORIES	
Description	Model
DC Power Supply	073A16



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IMI Sensors, a division of PCB Piezotronics, Inc. manufactures industrial vibration monitoring instrumentation, such as accelerometers, vibration transmitters and switches that feature rugged stainless steel housings and survive in harsh environments like paper and steel mills, mines, gas turbines, water treatment facilities and power plants. Integrating with portable analyzers and PLC's, IMI instrumentation helps maintenance departments reduce downtime and protect critical machinery. Visit IMI Sensors at www.pcb.com. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corporation. Additional information on MTS can be found at www.mts.com.

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