



## Portable Vibration Calibrators

AT-2030 | AT-2035 | AT-2040



Our three portable shakers offer a range of features and functionality, so you can choose the one that best meets your testing and vibration monitoring needs. All shakers are battery powered with a worldwide compatible charging system between 100-240 V power. Our portable shakers can be used in any setting—from the field to the laboratory—to verify or install machine condition monitoring sensors, systems, cabling, and connectors.

AT-2030 is our basic adjustable-frequency amplitude shaker. AT-2035 adds the ability to calculate transducer output sensitivity. AT-2040 has more enhanced shaker features, including a sensor simulation feature and 4-20mA and proximity probe inputs and outputs.



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## Portable Vibration Calibrator Specification & Feature Comparison



AT-2030



AT-2035



AT-2040

General	Frequency Range (operating, 100 gram payload)	7 Hz to 10,000 Hz 420 to 600,000 RPM	7 Hz to 10,000 Hz	7 Hz to 10,000 Hz 420 to 600,000 RPM
	Frequency Range (simulating)	N/A	N/A	0.1 Hz to 11,000 Hz
	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 p-p (1270 µm p-p)	20 g pk (196 m/s <sup>2</sup> pk) 15 in/s pk (380 mm/s pk) 50 mils p-p (1270 µm p-p)	20 g pk (196 m/s <sup>2</sup> pk) 15 in/s pk (380 mm/s pk) 50 mils p-p (1270 µm p-p)
	Maximum Amplitude (simulating)	N/A	N/A	35 g pk (343 m/s <sup>2</sup> pk)
	Maximum Payload	800 grams	800 grams	800 grams
	Sensor Test Method	N/A	Automatic sweep or manual operation	Automatic sweep or manual operation
	Sensor Input Connections	N/A	Manual sensitivity, automatic sweep	Manual sensitivity, automatic sweep, sensor simulation, certification
	Sensor Select	N/A	Built-in transducer library	Built-in transducer library
	Calibration Sheets	N/A	Automatic creation to memory Export to PDF and CSV Certificate includes test point with graph	Automatic creation to memory Export to PDF and CSV Certificate includes test point with graph
Accuracy	Acceleration (30 Hz to 2 kHz)	± 3%	± 3%	± 3%
	Acceleration (7 Hz to 10 kHz)	± 1 dB	± 1 dB	± 1 dB
	Velocity (10 Hz to 1000 Hz)	± 3%	± 3%	± 3%
	Displacement (30 Hz to 150 Hz)	± 3%	± 3%	± 3%
	Amplitude Linearity (100 gram payload, 100 Hz)	< 1% up to 10 g pk	< 1% up to 10 g pk	< 1% up to 10 g pk
	Waveform Distortion (100 gram payload, 30 Hz to 2 kHz)	< 5% THD (typical) up to 5 g pk	< 5% THD (typical) up to 5 g pk	< 5% THD (typical) up to 5 g pk
	Simulation Performance	N/A	N/A	< 1% error
Readout	Acceleration	g, m/s <sup>2</sup> (peak and RMS)	g, m/s <sup>2</sup> (peak and RMS)	g, m/s <sup>2</sup> (peak and RMS)
	Velocity (10 Hz to 1000 Hz)	in/s, mm/s (peak and RMS)	in/s, mm/s (peak and RMS)	in/s, mm/s (peak and RMS)
	Displacement (peak to peak)	mils, µm	mils, µm	mils, µm
	Frequency	Hz, RPM	Hz, RPM	Hz, RPM
Input / Output	Test Sensor Inputs	None	Charge, IEPE, velocity, proximity, voltage	Charge, IEPE, velocity, proximity, voltage 4-20 mA transducer 4-20 mA vibration transmitters
	Voltage Output	N/A	N/A	5-10 V output
	Bias Measurement	N/A	Yes	Yes
	Built-In Excitation Current and Supply Voltages for Transducers	N/A	IEPE current source Built-in charge amplifier	IEPE current source Built-in charge amplifier -24 V proximity driver source +24 V 4-20 mA supply Variable voltage supply
	External Source In (Max)	N/A	1 V AC RMS	1 V AC RMS
	Transducer Simulation	N/A	N/A	Charge, IEPE bias and signal 4-20 mA loop simulator Proximity probe driver (axial and radial)
	Monitor Reference Out	N/A	10 mV/g (nominal), buffered internal reference	10 mV/g (nominal), buffered internal reference
Power	Internal Battery (sealed solid gel lead acid)	12 V DC, 6 amp hours	12 V DC, 6 amp hours	12 V DC, 6 amp hours
	AC Power (for recharging battery)	100–240 V, 50–60 Hz, internal, standard plug	100–240 V, 50–60 Hz, internal, standard plug	100–240 V, 50–60 Hz, internal, standard plug
	Operating Battery Life	10 hrs (100 gram payload, 100 Hz 1 g pk) 1 hr (100 gram payload, 100 Hz 10 g pk)	10 hrs (100 gram payload, 100 Hz 1 g pk) 1 hr (100 gram payload, 100 Hz 10 g pk)	10 hrs (100 gram payload, 100 Hz 1 g pk) 1 hr (100 gram payload, 100 Hz 10 g pk)
	Accessory Power	USB 500 mA	USB 500 mA	USB 500 mA
Physical	Sensor Connectors	N/A	BNC	BNC, DIN, terminal strip
	Display	4.3-inch TFT LCD with 480x272 resolution	4.3-inch TFT LCD with 480x272 resolution	4.3-inch TFT LCD with 480x272 resolution
	Controls	Dual knobs and touch screen	Dual knobs and touch screen	Dual knobs and touch screen
	Dimensions (H x W x D)	8.5 x 12 x 10 in (22 x 30.5 x 28 cm)	8.5 x 12 x 10 in (22 x 30.5 x 28 cm)	8.5 x 12 x 10 in (22 x 30.5 x 28 cm)
	Weight	15.2 lb (6.9 kg)	15.2 lb (6.9 kg)	15.2 lb (6.9 kg)
	Operating Temperature	32 °F – 122 °F (0 °C – 50 °C)	32 °F – 122 °F (0 °C – 50 °C)	32 °F – 122 °F (0 °C – 50 °C)
	Agency Requirements and Certifications	NIST Traceable, Accredited NIST Certified NVLAP Laboratory Tested, EMC: EN61326-1, LVD: EN61010-1, ROHS	NIST Traceable, Accredited NIST Certified NVLAP Laboratory Tested, EMC: EN61326-1, LVD: EN61010-1, ROHS	NIST Traceable, Accredited NIST Certified NVLAP Laboratory Tested, EMC: EN61326-1, LVD: EN61010-1, ROHS