AT-2030

Portable Vibration Calibrator

The AT-2030 portable calibration shaker table is designed for simple accelerometer and vibration transducer calibration without the need for advanced features.

AT-2030 is a variable frequency, variable amplitude, battery operated portable shaker capable of calibrating accelerometers, transducers, and proximity probes. Applications are producing a known vibration signal in g's, mils, or ips for sensor, wiring, instrumentation, and system checkout in vibration condition monitoring applications.

Functionality

- Create calibration certificates for vibration instruments.
- Test all types of vibration sensors and transducers from a variety of accelerometer and eddy current probe manufacturers.
- Test and verify performance of vibration system meters, portable data collectors, and cabling by using an accurate and traceable signal generator to simulate a variety of sensors.
- Identify and quickly address issues in vibration system setup with the assistance of user-friendly software tools.

The superior accuracy of the AT2030 is ensured using a laser-calibrated primary reference, a precision quartz reference accelerometer, and closed-loop control employing distortion compensation algorithms. Calibration of the AT2030 and its accuracy has been accredited to ISO 17025 by a 3rd party, A2LA.

Applications

- Cabling and wiring troubleshooting
- Calibration of:
  - Accelerometers
  - Proximity probes and drivers
  - Monitoring systems
  - Avionics equipment

Advanced Features

- Automatic mass load correction
- Digital closed loop control
- Long battery life
- Class leading frequency and Amplitude range
- High resolution color touch screen

www.agatetechnology.com

AT-2030

Portable Vibration Calibrator

Specifications

Performance		
Frequency Range (operating)[1]	5 Hz to 10 kHz	360 to 600000 CPM
Maximum Amplitude (100 Hz, with no payload)	20 g pk 15 in/s pk 50 mils p-p	196 m/s² pk 380 mm/s pk 1270 µm p-p
Maximum Payload [2]	800 grams	

Accuracy	
Acceleration (5 Hz to 9Hz)	± 5 %
Acceleration (10 Hz to 10 kHz)	± 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 (typical) up to 5 g pk

Physical		
Sensor Connectors	NA	
Display	4.3" TFT LCD with 480x272 resolution	
Controls	2 dials with touch screen	
Dimensions (H x W x D)	10.62 x 9.68 x 6.87	27 x 24.6 x 16.4 cm
Weight	16.2 lb	7.35 kg
Sensor Mounting Platform Thread Size	1/4-28	
Operating Temperature	32 °F - 122 °F	0 °C - 50 °C
Agency Requirements and Certifications	NIST Traceable ISO 17025:2017 A2LA accredited EMC: EN61326-1 LVD: EN61010-1 RoHS	

Readout		
Acceleration	g pk m/s² pk	g RMS m/s² RMS
Velocity	mm/s pk in/s pk	mm/s RMS in/s RMS
Displacement (peak to peak)	mils p-p	µm p-p
Frequency	Hz	CPM

Power		
Internal Battery (sealed solid gel lead acid)	12 V DC	6 amp hours
AC Power (for recharging battery)	100-240 V	50-60 Hz
Operating Battery Life 100 gram payload, 100 Hz 1 g pk 100 gram payload, 100 Hz 10 g pk	 10 hours 3 hours	
Charger Type	Internal / Built In	
Plug Type	Standard **PC** Wall Plug	

Accessories		
Included Accessories	• Power cable • 2-56 adapter • 1/4-28 Stud • 2-56 UNC Adapter • Universal Velocity Adapter Disc • Universal Accelerometer Adapter Disc	• Short-handle wrench • 10-32 UNF Stud • 6-32 UNC Adapter • 10-32 UNF Adapter • USB drive:
Optional Accessories [3]	• Proximity Probe Adapter Kit (digital or manual micrometer) • Chadwick-Helmuth Velocimeter Cable • Triaxial Accelerometer Adapter	
Warranty	2 years (includes drift/accuracy)	
Tech Support	Training webinars, email support	

[1] 100 gram payload.

[2] Maximum weight recommendations:

Frequency	0-100 Grams	100-250 Grams	250-500 Grams	500-800 Grams
10-100 Hz	10 g	4 g	2 g	1 g
100-1000 Hz	7 g	4 g	2 g	1 g
1000-10000 Hz	3 g	1.5 g	0	0

[3] For comprehensive list, please consult the Product Spec Sheet or contact sales.

(951) 719-1032
sales@agatetechnology.com
agatetechnology.com
Temecula, California
United States of America