AT2035

Portable Accelerometer Calibrator

PCV with Sensitivity

Overview

AT2035 is a premium portable vibration calibrator capable of sensitivity test in manual or automatic mode. Full automatic mode is capable of creating PDF certifications for most common sensor types. AT2035 is the ideal calibrator for operators needing low cost, quick, and reliable accelerometer calibration; as well as system checkout.

AT2035 offers a mix of features taken from our standard portable calibration shaker, AT2030, and our executive-class portable vibration calibrator, AT2040. Calibration of the AT2035 and its accuracy has been accredited to ISO 17025 by a 3rd party, A2LA.

Features

- Voltage, charge (piezoelectric), and proximity probe sensitivity readings.
- Adjustable current and voltage.
- Full-automatic test mode.
- Superior accuracy.
- Color touch screen.
- Automatic PDF certificate generation tailored to your custom specifications.
- Two USB ports for attaching peripherals and exporting data to CSV and PDF (via the USB drive).

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.
- Control AT2035 from a remote location.

Applications

- Troubleshoot cabling and wiring
- Calibrate:
  - Accelerometers
  - Proximity probes and drivers
  - Monitoring systems
  - Charge amplifiers
  - Avionics equipment

Advanced Features

- Built-in sensor signal conditioner
- Programmable sensor voltage
- Automatic mass-load correction
- Dual USB ports
- Advanced computer algorithms for accurate readout

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Specifications

AT2035

Portable Accelerometer Calibrator

Performance		
Frequency Range (operating)[1]	5 Hz to 10,000 Hz	300 to 600,000 RPM
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	
Sensor Input Connections	IEPE, Charge, and voltage sensors, Limited proximity probe input support	
Sensor Test Method	Automatic sweep or manual operation	
Test Types	Manual sensitivity Automatic sweep, with sensitivity and deviation relative to reference frequency. Includes phase data.	
Sensor Select	Built-in transducer library	
Calibration Sheets	Automatic creation to memory Export to PDF or CSV Certificate includes test point with graph	
Memory	16 GB (internal storage) MicroSD slot for additional storage	

Vibration Signal Accuracy	
Acceleration (5 Hz to 9 Hz)	±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	BNC	
Display	4.3" TFT LCD with 480×272 resolution	
Controls	2 dials with touch screen	
Dimensions (H × W × D)	10.6 × 9.7 × 6.9 in	27 × 24.6 × 17.4 cm
Weight	16.4 lb	7.0 kg
Sensor Mounting Platform Thread Size	¼-28	
Operating Temperature	32–122 °F	0–50 °C
Agency Requirements and Certifications[4]	A2LA Accredited NIST Traceable EMC:EN61326-1 LVD:EN61010-1 ISO/IEC17025:2017 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	RPM

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, internal, standard plug	
Operating Battery Life 100 gram payload, 100 Hz 1 g pk 100 gram payload, 100 Hz 10 g pk	 10 hours 1 hours	
Charger Type	Internal / Built-in	
Plug Type	Standard PC Wall Plug	
Accessory Power	USB 500 mA	

Accessories		
Included Accessories	• Power cable • Micro dot (10-32) • ¼-28 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: loaded with setup software for custom sensor
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.

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