

CV-10 Mobile Vibration Calibrator

One-Stop Solution for On-Site Calibration



Applications

- ✓ On-Site calibration of accelerometers, proximity and vibration velocity sensors
- ✓ On-Site calibration of vibration meters
- ✓ On-Site calibration of vibration test beds
- ✓ Vibration test system for small devices

Selected Data

- ✓ Powerful vibration exciter
 - 5 Hz...10 kHz
 - 200 m/s² (20 g_n), max.
 - Up to 900 g (2.0 lb) payload
- ✓ Battery operation more than 10 h

Features

- ✓ Integrated signal conditioners
 - Voltage, PE, IEPE, 4 mA...20 mA
 - Amplifier for PR transducers (option)
- ✓ Extension port for future options (e.g. special sensor power supplies)
- ✓ Rugged case for daily on-site operation
- ✓ Traceable to PTB, NIST, ...
- ✓ Easy Data Exchange via USB, Ethernet / WiFi (future options)



Specification

Technical Data

Frequency range	5 Hz...10 kHz (300 ... 600 000 CPM)	
Velocity, max. (sine peak)	700 mm/s (27 in/s)	
Acceleration, max. (sine peak)	200 m/s ² (20.39 g _n)	
Displacement, max. (peak - peak)	5 mm (196 mils)	
Temperature range (for operation)	0 °C ... +50 °C (32 °F ... 122 °F)	
Payload, max.	900 g (31.7 oz)	
Measurement Uncertainty (for accelerometer calibration and vibration generation)	7 Hz ... 1 kHz	1.5 % ¹⁾ (2.0 % ²⁾
	1 kHz ... 5 kHz	1.5 % ¹⁾ (3.0 % ²⁾
	5 kHz ... 10 kHz	3.5 % ¹⁾ (6.0 % ²⁾
Harmonic distortion	< 1 % (> 100 Hz)	
Transverse motion	according to ISO 16063-21	
Power supply	100 V...240 V, 50 Hz ... 60 Hz (external)	
Rechargeable Battery	Sealed gel lead rechargeable battery (internal) typical battery operation up to 10 hours (100 g payload, 100 Hz, 1 g _n pk)	
Total weight	8.5 kg (18.7 lbs)	
Dimensions (HxWxD)	170 mm x 350 mm x 300 mm (6.7 in x 13.8 in x 11.8 in)	

All measurement uncertainties are determined according to GUM (ISO Guide to the expression of uncertainty in measurement) with k=2 (coverage factor)

1) Under laboratory conditions: (23 ± 5) °C, max. acceleration: 30 m/s², max. payload: 30 g

2) Under worst case conditions: 0 °C ... 50 °C, max. acceleration: 200 m/s², max. payload: 40 g



⊕ Accessories (included)

- ✓ **Adapter:**
 - 1/4-28 to 1/4-28 mounting stud
 - 10-32 to 1/4-28 mounting stud
 - Adhesive mounting base
- ➔ [You can find more adapters on our website.](#)
- ✓ Power supply with plug adapters
- ✓ Mounting wrench
- ✓ USB flash drive with report generation worksheet
- ✓ PTB traceable calibration certificate (DAkkS)

⊕ Accessories (optional)

- ✓ Proximity probe adapter
- ✓ Signal conditioner module for PR-sensors
- ✓ BN-17 IEPE transfer standard accelerometer
- ✓ Special sensor power supplies (on request)





⊕ Further data

Operation Modes / Software	<ul style="list-style-type: none">✓ Operation Modes (standard):<ul style="list-style-type: none">• Manual Operation• Stepped Sine Calibration (automatic)• Transfer Calibration Mode (calibration / check of the system via calibrated reference transducer)✓ Operation Modes (optional):<ul style="list-style-type: none">• Sweep Mode (automatic)✓ PC-Software (optional):<ul style="list-style-type: none">• Management of DUT in a database, test setups, protocols and measurement campaigns
Data Exchange	<ul style="list-style-type: none">✓ Interfaces:<ul style="list-style-type: none">• USB flash storage drive (standard)• Ethernet with optional software• WIFI with optional hardware✓ Data formats:<ul style="list-style-type: none">• CSV text files for sensor data, test setups and calibration results• SPEKTRA CS compatible database format via optional PC software