

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 gram (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 (option)



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 - horizontal / vertikal (max.)	900 g (31.7 oz)	
Measurement Uncertainty (for accelerometer calibration and vibration generation)	5 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 gram payload, 100 Hz, 1 g _n pk)	
Total weight	8.5 kg (18.7 lbs)	
Dimensions (HxWxD)	146 mm x 347 mm x 295 mm (5.7 in x 13.7 in x 11.6 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 gram

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



⊕ 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)

- ✓ BN-17 IEPE transfer standard accelerometer
- ✓ Proximity probe adapter
- ✓ PR sensor signal conditioner module
- ✓ 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)✓ Operation Modes (optional)<ul style="list-style-type: none">• Sweep Mode (automatic)• Transfer Calibration Mode (calibration / check of the system via calibrated reference transducer)✓ 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