

CV-10 Mobile Vibration Calibrator

One-Stop Solution for On-Site Calibration



Oo Applications

- calibration of accelerometers, proximity probes and vibration velocity sensors
- ✓ on-site calibration of vibration meters and vibration test beds
- \checkmark vibration test system for small devices

Selected Data

- ✓ powerful vibration exciter
- ✓ frequency range: 5 Hz...10 kHz
- \checkmark acceleration, max.: 200 m/s² (20 g_n)
- payload, max.: 900 g (1.9 lb)
- ✓ battery operation up to 10 h

© Features

- ✓ integrated signal conditioners
 - voltage, charge, IEPE, 4 mA...20 mA
 - amplifier for PR transducers (option)
- extension port for future options
 (e.g. special sensor power supplies)
- \checkmark rugged case for daily on-site operation
- \checkmark traceable to PTB, NIST etc.
- \checkmark easy data exchange via USB
- \checkmark expandable with future options

Specification

The CV-10 was specifically designed to simplify your on-site calibration of accelerometers, proximity probes, velocity sensors and many more.

An extensive, portable and lightweight calibration system, traceable to NIST and PTB, delivered in a rugged case - and available at low investment costs. Only 9 kg, up to 10 hours battery driven operation and powerful vibration exciters are just a few of numerous reasons why the CV-10 is the right choice for many industries like automotive, aviation, construction, condition monitoring or research and development. Accessories like the accessory set for proximity sensors or an extension module for PR sensors complement the CV-10 useful.

Technical Data

Frequency range	5 Hz10 kHz (300600 000 CPM)	
Velocity, max. (sine peak)	700 mm/s (27 in/s)	
Acceleration, max. (sine peak)	200 m/s² (20.39 g _n)	
Displacement, max. (peak - peak)	5 mm (196 mils)	
Temperature range (for operation)	0 °C+50 °C (32 °F122 °F)	
Payload, max.	900 g (31.7 oz)	
Measurement Uncertainty (for accelerometer calibration and vibration generation)	5 Hz 1 kHz > 1 kHz 5 kHz > 5 kHz10 kHz	1.5 % ¹⁾ (2.0 %) ²⁾ 1.5 % ¹⁾ (3.0 %) ²⁾ 3.5 % ¹⁾ (6.0 %) ²⁾
Harmonic distortion	< 1 % (> 100 Hz)	
Transverse motion	according to ISO 16063-21	
Power supply	100 V240 V, 50 Hz60 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	9 kg (19.8 lbs)	
Dimensions ($H \times W \times D$)	170 mm × 350 mm × 300 mm (6.7 in × 13.8 in × 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 \pm 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

🔁 Further data

	Standard	Optional
Operation modes	✓ manual operation	 automatic sensor calibration (sine excitation) sensor measurement with sweep (sliding sine excitation) vibration measurement
Interfaces	✓ USB flash storage drive	✓ WiFi / Ethernet for connection with PC software ¹⁾
Data formats	 CSV text files for sensor data and test setups CSV and/or XML files for calibration results 	 SPEKTRA CS compatible database format via PC software ¹⁾
PC-Software		 management of DUT in a database, test setups, protocols and measurement campaign¹⁾

1) planned feature; in preparation

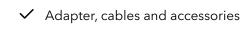
included:

✓ Adapter:

- 1/4-28 to 1/4-28 mounting stud
- 10-32 to 1/4-28 mounting stud
- Adhesive mounting base
- \checkmark Power supply with plug adapters
- ✓ Mounting wrench
- ✓ USB flash drive with report generation worksheet
- ✓ PTB traceable calibration certificate (DAkkS)



 CV-10 with adapter for proximity probes



 \checkmark

optional:

✓ Proximity probe adapter

✓ Signal conditioner module for PR-sensors

✓ BN-17 IEPE transfer standard accelerometer

Special sensor power supplies (on request)

