Mobile calibrator CV-05

for vibration transducers and vibration meters



Applications

- on-site checks of vibration meters, e.g. according to ISO 8041
- inspection of sensor wirings of vibration test setups
- error search on vibration measurement chains of machines

Selected Data

- 79.58 Hz and 159.15 Hz
- various amplitudes can be set (acceleration, velocity, displacement)
- maximum payload: 300 g
- up to 12 h of continuous operation

Features

- hand-held vibration calibrator
- integrated reference sensor
- warning LED for high transverse motion
- big vibration table for heavy DUT
- simple user interface
- rugged housing for maximum reliability
- transportation case and standard mounting adapter set included
- calibration certificate according to DAkkS standard included (corresponds to ILAC-MRA)

Specification

The CV-05 is a portable vibration calibrator designed for checking vibration meters. It allows the user to select amplitudes from 1 m/s² ...10 m/s² depending on the selected frequency. The powerful shaker with a titanium armature is suitable for sensors weighing up to 300 g (at 80 Hz). The compact size and rugged housing make the CV-05 suitable for a wide range of applications, such as on-site verification of human vibration meters according to ISO 8041 or machine monitoring setups.

Each CV-05 is calibrated by SPEKTRA before shipment and receives an internationally recognized DAkkS calibration certificate traceable to PTB.

Technical Data

Frequency	79.58 Hz	159.2 Hz
Acceleration (m/s² RMS)	1; 2; 3; 4; 5; 6; 7; 8; 9; 10	1; 2; 3; 4; 5; 6; 7; 8; 9; 10
Velocity (mm/s RMS)	2; 4; 6; 8; 10; 12; 14; 16; 18; 20	1; 2; 3; 4; 5; 6; 7; 8; 9; 10
Displacement (µm RMS)	4; 8; 12; 16; 20; 24; 28; 32; 36; 40	1; 2; 3; 4; 5; 6; 7; 8; 9; 10
Amplitude error	< ±3 %	
Frequency error	< ±0,5 %	
Transverse motion	< 10 % of main direction	
Harmonic distortion	< 3 %	
Payload, max.	300 g (0.66 lbs)	200 g (0.44 lbs)
Sensor mounting	threaded hole M5 × 6 mm	
Temperature range (in operation)	-10 °C … +50 °C (+14 °F …+122 °F)	
Power supply	NiMH rechargeable battery; 7.2 V / 2.2 Ah	
Battery operating time	up to 12 hours [1)]	
Weight (total)	1.25 kg (2.8 lbs)	
Dimensions (H × W × L)	168 mm × 65 mm × 65 mm (6.6 in × 2.6 in × 2.6 in)	

1) 110 g at 79.6 Hz; payload and operating frequency dependent

Components

- ✓ CV-05 vibration calibrator
- ✓ rugged transport case
- ✓ Mini USB cable and power supply for charger (5 V / 1 A)
- ✓ thread adapter: ¼-28; M5; 10-32 and adhesive mounting base