

# SV 110

## Hand-Held Vibration Calibrator



The SV 110 is a hand-held vibration calibrator designed for verification of machine sensors as well as on-site checks of human vibration accelerometers in accordance with ISO 8041. The small size of the SV 110 enables easy in-situ checks of sensors on the machines. Depending on the selected frequency the user may select a level of calibration from 1 to 10  $\text{m/s}^2$ . Accelerometers are conveniently attached using a mounting stud, mounting disc or dedicated adapter. The titanium shaking table and powerful shaker enable calibration of sensors with a mass of up to 300 g at 80 Hz.





# SV110

## Hand-Held Vibration Calibrator



### Machine Vibration

Machine vibration  
sensors check



### Hand-Arm Vibration

ISO 8041  
In-situ check



### Reference sensor

Built-in 3-axial  
vibration sensor

The titanium shaking table and powerful shaker enable calibration of sensors with a mass of up to 300 g at 80 Hz. Accelerometers are conveniently attached using a mounting stud, a mounting disc or a dedicated adapter. The calibrator menu provides selection between both "g" and "m/s<sup>2</sup>" metric systems of measurement as well as a choice of frequency units, between both Hertz (Hz) and Cycle Per Minute (CPM).

The SV110 is hand-held vibration field calibrator designed in compliance with ISO 8041 for in-situ checks of hand-arm vibration meters. The menu is simply operated by three push-buttons and a small OLED display. Depending on the frequency chosen, a user may select a calibration range from 1 to 10 m/s<sup>2</sup>.

Following the requirements of ISO 8041, the calibrator's built-in triaxial reference accelerometer measures the cross-axis (transverse) vibrations to detect any interference to the calibration signal. Faults caused by transverse vibrations are indicated by LED on the calibrator's housing.

## Key Functions



Machine vibration measurements

The SV 110 enables easy checks of sensors in-situ at the machines. Accelerometers are conveniently attached using a mounting stud, mounting disc or dedicated adapter.



ISO 8041 specification

Following the requirements of ISO 8041, the calibrator's built-in triaxial reference accelerometer measures the cross-axis (transverse) vibrations to detect any interference to the calibration signal.



Hand-arm vibration

Following the requirements of ISO 8041, the SV 110 is the perfect solution for calibration checks of hand-arm vibration meters including Svantek's SV 103 and SV 106A.



80 Hz and 160 Hz selectable levels

The calibrator operates on two frequencies: 80 Hz or 160 Hz, enabling in-situ checks of hand-arm vibration meters as well as machine vibration meters. Depending on the frequency selected, the user can select the level of calibration from 1 to 10 m/s<sup>2</sup>.



Simple user interface

The calibrator is simple to use. It has three push-buttons for selection of frequency and amplitude and start/stop control. The OLED graphical screen displays information on the selected frequency and vibration level.



Rechargeable battery

The calibrator has built-in rechargeable batteries that typically allow for 12 hours of continuous operation.



Robust hardware with 3-year warranty

Robust aluminium housing protects the hardware and also provides the comfort of a secure grip for the user. Each SV 110 is supplied with its factory calibration certificate and a 36-month warranty card.

## Optional accessories



SA 105  
Calibration Adapter to SV 105  
and SV 107 Accelerometers



SA 155  
Calibration Adapter to SV 150  
and SV 151 Accelerometers



SA 40  
Calibration Adapter to SV 3233A  
Accelerometer



SA 44  
Calibration Adapter to SV 50  
Accelerometer

## Related products



SV 103  
3-Channel  
Hand-Arm Vibration Meter



SV 106  
Six-Channel  
Human Vibration Meter



SVAN 958  
Four-Channel  
Sound and Vibration Analyser



SVAN 974  
Single-Channel  
Vibration Analyser





## Technical Specifications

Calibration signal parameters		
Standards	ISO 8041-1:2017	
Vibration Accelerations (RMS in m/s <sup>2</sup> )	1; 2; 3; 4; 5; 6; 7; 8; 9; 10 (at 79.58 Hz) 1; 2; 3; 4; 5; 6; 7; 8; 9; 10 (at 159.2 Hz)	
Vibration Velocities (RMS in mm/s)	2, 4, 6, 8, 10, 12, 14, 16, 18, 20 (at 79.58 Hz) 1; 2; 3; 4; 5; 6; 7; 8; 9; 10 (at 159.2 Hz)	
Vibration Displacement (RMS in µm)	4, 8, 12, 16, 20, 24, 28, 32, 36, 40 (at 79.58 Hz) 1; 2; 3; 4; 5; 6; 7; 8; 9; 10 (at 159.2 Hz)	
Amplitude Error	Less than ± 3%	
Frequency Error	Less than ± 0,5%	
Transverse Vibration	Less than 10% of the main direction	
Harmonic Distortion	< 3 % (at 79.58 Hz) < 3 % (at 159.2 Hz)	
General Information		
Maximum Weight of Calibrated Object	300 grams (at 79.58 Hz) 200 grams (at 159.2 Hz)	
Power Supply	Rechargeable battery 7.2 V / 2 Ah Charging Time Power Supply for Charger	operation time up to 12 h <sup>1</sup> 5 hours (with SA 54) or 10 hours (with USB) <sup>1</sup> SA 54 (5V / 1A) or mini USB 500 mA HUB
Environmental Conditions	Temperature Humidity	from -10 °C to 50 °C (14 °F to 122 °F) 25 % ÷ 85 % RH, non-condensed
Dimensions	170 x 65 x 65 mm	
Weight	1200 g (incl. battery)	

<sup>1</sup>depending on configuration and environmental conditions

The policy of our company is to continually innovate and develop our products. Therefore, we reserve the right to change the specifications without prior notice.

