

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 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.





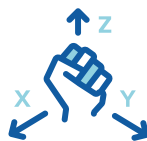
SV110

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/s²" 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/s².

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/s².



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 ²) | 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 ¹ 5 hours (with SA 54) or 10 hours (with USB) ¹ 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) | |

¹depending 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.

