

SV 110

Portable 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 to ISO 8041.

The small size of SV110 enables easy checks of sensors at the machines. Depending on the selected frequency user may select level of calibration from 1 m/s^2 to 10 m/s^2 . Accelerometers are conveniently attached using mounting stud, mounting disc or dedicated adapter. The calibrator menu provides selection between both metric systems 'g' and ' m/s^2 '. The menu is simply operated by three push-buttons and small OLED display.

The SV 110 is the perfect solution for calibration checks of hand-arm vibration meters including Svantek's SV103 and SV106. Following the requirements of ISO 8041, the calibrator's built-in reference

accelerometer measures the cross-axis (transverse) vibrations to detect any interference to the calibration signal. Faults caused by transverse vibrations are indicated by two LEDs on the calibrator's housing. This unique solution ensures stability of both the calibration level & frequency, independent from the mass of the test object. The small size of the SV110 makes it very useful for calibration checks of various types of machine vibration accelerometers. Depending on the selected frequency, the user can select the level of the calibration from 1 m/s^2 to 10 m/s^2 . Accelerometers are conveniently attached using either a mounting stud, a mounting disc or a dedicated adapter. The calibrator has built-in rechargeable batteries that will power it for 12 hours of continuous operation.

Features

- Hand-held portable vibration calibrator
- Two frequencies 79.58 Hz and 159.2 Hz
- Maximum load of 0.3 kg!
- Calibration checks of machine vibration accelerometers
- In-situ checks of hand-arm vibration accelerometers according to ISO 8041
- Cross-axis/transverse vibrations detection with built-in reference accelerometer
- Automatic fault detection
- Display showing frequency, magnitude and errors
- Robust design
- Rechargeable battery

Verification of various sensors*

- Hand-arm accelerometers mounted on hand
- Hand-arm accelerometers mounted on tool
- Industrial accelerometers



* sensors and adapters shown on photos are not the part of SV110 kit



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Technical Specification

Generated Vibration Signal (Calibration)

Vibration accelerations (RMS in ms ⁻²)	1; 10 (at 79.58 Hz) 1; 10 (at 159.2 Hz)
Amplitude error	Less than $\pm 3\%$
Frequency error	Less than $\pm 0,5\%$
Transverse vibration	Less than 10% of the main direction
Harmonic distortion	< 3 % (at 79.58 Hz) < 3 % (at 159.2 Hz)

Maximum load

Maximum weight of calibrated object	300 grams (at 79.58 Hz) 200 grams (at 159.2 Hz)
Sensor mounting	Thread M5 x 6 mm;

Working Conditions

Temperature range	-10 °C ÷ 50 °C
Humidity range	25% ÷ 85%

Power Supply

Battery type	Rechargeable 8.4 V / 2 Ah
Continuous operating time	12 hours (load 200 g for 10 m/s ² at 79.58 Hz) 5 hours (load 300 g for 10 m/s ² at 79.58 Hz) 3 hours (load 200 g for 10 m/s ² at 159.2 Hz)
Charging time	5 hours (with SA 54) or 10 hours (with USB)
Power supply / charger	SA 54 (5V / 1A) or mini USB 500 mA HUB

Weight and Dimensions

Weight	1200 g (incl. battery)
Dimensions	170 x 65 x 65 mm

Optional Adapters

SA 105A	adapter for SV 105A (option)
SA 155	adapter for SV150 and SV151 (option)
SA 40	adapter for SV 207A, Dytran 3233A, SV 39A, Dytran 3143M1 (option)
SA 44	adapter for SV 50, Dytran 3023M2 (option)



Continuous product development and innovation are the policy of our company. Therefore, we reserve the right to change the specifications without prior notice.

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