

SV 111

Vibration Calibrator

The SV 111 vibration calibrator is the State of the Art instrument designed for human vibration measurements according to ISO 8041. The design of the calibrator based on the triaxial reference accelerometer and microprocessor controlled shaker. These both features assure excellent stability of the calibration levels and their frequency independently from mass of the testing object, like also indicate improper test object fixing by monitoring of shaker vibration in all three axis simultaneously.

The SV 111 is a multi-frequency calibrator which provides following frequencies 16 Hz, 80 Hz, 160 Hz and 640 Hz. Vibration level is selectable as

well. Shaker can be loaded with large weight which is up to 1 kilogram what together with special adapter provide fast and easy calibration of complete seat accelerometer SV 38 & SV 38V and complete Whole-Body dosimeter SV 100 in all three axis. Other types of vibration transducers can be conveniently attached using mounting stood, mounting disc or dedicate adapter.

Robust casing and built-in rechargeable battery makes this device excellent in field vibration calibrator for human vibration measurements, building vibration measurements and general purpose applications.

FEATURES

- Low frequency calibration at 15.92 Hz of the HVM instruments meeting ISO 8041
- Easy calibration of all type of vibration transducers for acceleration, velocity and displacement at 79.6 Hz and 159.2 Hz
- Complete seat accelerometer calibration
- Loading capability up to 1 kilogram @ 15.92 Hz!
- Calibration fault detection
- Triaxial reference transducer
- Display shows: frequency, magnitude and errors
- Beeper indicating stable level and power off
- Rechargeable battery for 20 hours of continuous operation
- Automatic power off with adjustable time
- Robust design
- READY and EASY to USE IN FIELD



TECHNICAL SPECIFICATIONS

Generated vibration signal (Calibration)					
Frequency	15,92	79,58	159,2 Hz	636,6	Hz
Vibration accelerations (rms)	1	1; 2; 3; 4; 5; 6; 7; 8; 9; 10	1; 2; 3; 4; 5; 6; 7; 8; 9; 10	1	$\frac{m}{s^2}$
Vibration velocities (rms)	10	2, 4, 6, 8 10, 12, 14, 16, 18 20	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	0.25	$\frac{mm}{s}$
Vibration displacement (rms)	100	4, 8, 12, 16, 20, 24, 28, 32, 36, 40	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	0.0625	μm
Amplitude error	Less than $\pm 3\%$				
Frequency error	Less than $\pm 0,05\%$				
Transverse vibration	Less than 10% of the main direction				
Harmonic distortion	<5	<3	<3	<3	%
General					
Maximum weight of calibrated object	1000	300	200	200*	grams
Sensor mounting	Thread M5 x 12 mm;				
Mounting adapters	SA 111	seat accelerometer adapter for SV 38, SV 38V, SV 100 (included)			
	SA 105	adapter for SV 105 (option)			
	SA 38	adapter for SV 101 (option)			
	SA 40	adapter for SV 207A, Dytran 3233A, SV 39A, Dytran 3143M1 (option)			
	SA 44	adapter for SV 50, Dytran 3023M2 (option)			
Levelling off time	Typically 15 ÷ 20 seconds, 60 seconds max				
Working conditions					
Temperature range	-10°C ÷ 50°C				
Humidity range	25% ÷ 85%				
Power supply					
Battery type	Rechargeable 6V/12Ah				
Continuous operating time	Up to 20 hours				
Automatic switch off	From 5 to 60 minutes adjustable				
Charging time	Less than 10hours				
Power supply for charger	15 W; 8÷24 V				
Overall weight and dimensions					
Weight	6,5 kg (incl. battery)				
Dimensions	395 x 270 x 194 mm				

* For the mass >150 grams vibration transverse vibration could exceed 10%

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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