



Application

- Rapid and easy calibration of vibration transducers for acceleration, velocity and displacement
- Dynamic calibration of non-contact displacement sensors (proximity probes)
- Calibration and fault detection of vibration measuring systems
- Calibration of low frequency equipment for whole-body vibration to ISO 8041 and building vibration to DIN 4150-3

Properties

- Load independent vibration level for test objects weighing up to 500 g
- Vibration amplitude selectable in five steps from 1 to 20 m/s²
- Quartz controlled vibration frequency selectable in seven steps from 15.92 Hz to 1280 Hz
- Display shows frequency, magnitude, error in percent and calibration date
- Rugged design
- Mains buffered battery operation for laboratory and field use
- Detachable clamping device for the dynamic calibration of non-contact displacement sensors / proximity probes
- Clock output for the synchronization of narrow-band measuring systems (e.g. key phasers)
- Calibration to ISO 16062-44 with factory calibration certificate
- Upon request, we also offer DAkKS-accredited calibration with traceability

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Technical Data

Shaker System

Vibration frequency	15,92	40	80	159,2	320	640	1280	Hz
Vibration acceleration	1	1	1	1	1	1	1	m/s ²
	2	2	2	2	2	2	2	m/s ²
		5	5	5	5	5	5	m/s ²
			10	10	10	10	10	m/s ²
				20	20	20	20	m/s ²
Vibration velocity	10			1				mm/s
	20			2				mm/s
				5				mm/s
				10				mm/s
				20				mm/s
Vibration displacement	100			1				µm
	200			2				µm
				5				µm
				10				µm
				20				µm
Weight of test object, 1 m/s ²	500	500	500	500	500	500	500	g
Weight of test object, 2 m/s ²	500	500	500	500	500	500	500	g
Weight of test object, 5 m/s ²		500	500	500	500	500	500	g
Weight of test object, 10 m/s ²			500	500	500	400	200	g
Weight of test object, 20 m/s ²				250	200	100	50	g
Amplitude error, max.	±3 (0 – 40 °C)							%
	±5 (-10 - 55 °C)							%
Frequency error, max.	±0,05							%
Transverse vibration	<10	<10	<10	<10	<20	<20	<10	%
Total Harmonic Distortion (THD)	<1	<5	<1	<1	<1	<1	<1	%
Sensor mounting	M5 tapped hole (90° ± 1°; 7mm deep), magnet							
Level indication	error percent display and acoustic signal							

Connections

Clock output	Clock of internal reference sensor; BNC; 3.3 V; 50 Ω; duty ratio approx. 1:1
Grounding connection	Banana socket 4 mm

Power Supply

Battery	built-in NiMH battery pack; 7.2 V / 1.6 Ah	
Charge socket	Circular power connector to DIN 45323 (5.5 mm / 2.2 mm)	
Operating time per battery charge	5 (with 100 g weight)	h
Accumulator charging time	4	h
Charging voltage	11 – 18	V
Charging current < 1 A	<1	A
Automatic switch off	1 – 30, selectable	min

Case Data

Dimensions without connectors	100 x 120 x 100 (W x H x D)	mm
Case material	Aluminum	
Weight	2,2	kg
Operating temperature range	-10 to 55 (95 % rel. humidity without condensation)	°C

Scope of delivery

Plastic carrying case
 PS1600 Mains plug adapter 100 – 240 VAC; 12 VDD; <1600 mA
 Thread adapters M3 / M5 / M8 / 1/4"-28 / UNF 10-32

Optional accessories

Thread adapters for promity probe M6x0,5; M8x1; M10x1; M14x1; M20x1; 1/4"-28; 3/8"-24; 1/2"-20

