hpower
high power actuators by piezosystem jena

ABOUT HPOWER

hpower actuators combine fastest response times in µs, superior kHz dynamics, high force generation in the range of tens of kN and nanometer precision in a way that is unmatched by any other linear driving system. The actuation can be obtained without any mechanical wear, making the actuators extremely durable. hpower products include ring and stack type actuators, as well as shakers and shock generators. hpower is the result of the collaboration between piezosystem jena and Piezomechanik GmbH and therefore combines centuries of piezo expertise with new innovations.

PIEZOELECTRIC SHAKER PISHA

PIEZOELECTRIC SHAKER WITH HIGH-BANDWIDTH AMPLIFIER

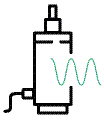
Concept

Piezo shaker made by **hpower** put the electrical excitation signal directly into a high-frequency **motion**. The amplitude of the shaker motion is determined by the operating voltage, whereas the speed of the movements is determined by the charging current (in the sub-resonat mode). The internal structure of the shaker is adapted to the occurring high forces, pressures and accelerations. So the **piezoelectric shaker** achieves a highly reliable and repeatable operation under oscillation at a continuous load.

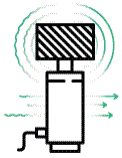
Product highlights

- working freqeuncy up to 70kHz
- max. amplitude 12 µm
- max. force modulation 50000 N
- thermostable
- high resonant frequency

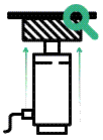
Applications:



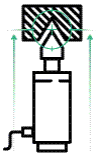
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING



MECHANICAL ENGINEERING

Technical data of PiSha shaker

type	motion, µm	voltage range, V	Length, mm	diameter, mm	resonant frequency, kHz	Blocking force, N	Capacity, nF	Stiffness, N/µm
Pisha 150/35/1	1	0...+150	33	45	40	5000	300	4000
Pisha 150/16/2	2	0...+150	29	25	40	1800	100	600
Pisha 150/16/3	3	0...+150	35	25	30	1800	150	400
Pisha 150/15/3	3	0...+150	35	22	27	830	90	300
Pisha 150/16/4	4	0...+150	41	25	20	1800	200	300
Pisha 150/35/80	12	0...+150	96	45	23	7500	3300	450
Pisha 1000/10/15	20	0...+1000	33	18	35	4000	45	150
Pisha 1000/10/25	25	0...+1000	42	18	30	4000	85	100

Amplifiers for PiSha shaker

type	Voltage rang, V	Max. current, mA	Bandwidth, Hz	input & output Plug	gain
LE 150/100 EBW	0...+150	1000	70000	BNC	30
LE 1000/035	0...+1000	350	5000	BNC	100
RCV 1000/7	0...+1000	7000	2000	BNC	100
RCV 1000/3	0...+1000	3000	2000	BNC	100

Get in touch with us and we will help configure the best solution.

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