

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.

BARE RING TYPE ACTUATORS SERIES HPSt 25-15

SERIES HPST WITHOUT CASING AND WITHOUT PRELOAD, DIAMETER 25-15MM



Concept

Ring type actuators based on a hollow cylindrical design. Compared with stack type actuators, ring actuators have a higher bending stability, better heat management efficiency and allow access to system axis. Given the same volume of PZT material, a ring actuator has a larger total diameter, which results in increase in stability against bending and buckling forces applied to the actuator. Their overall larger surface also removes heat quicker from the system, which allows them to run at much higher frequencies without overheating.

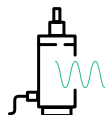
Product highlights

- max. load: 22000 N
- max. force generation: 13000 N
- free opening aperture
- heat abstraction
- high bending stability

Options

- low temperature modification
- ultra high vacuum (UHV) modification
- strain gage (SG) measurement system
- piezo material HP (high power & capacitance)

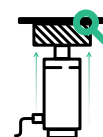
Applications:



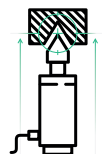
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING

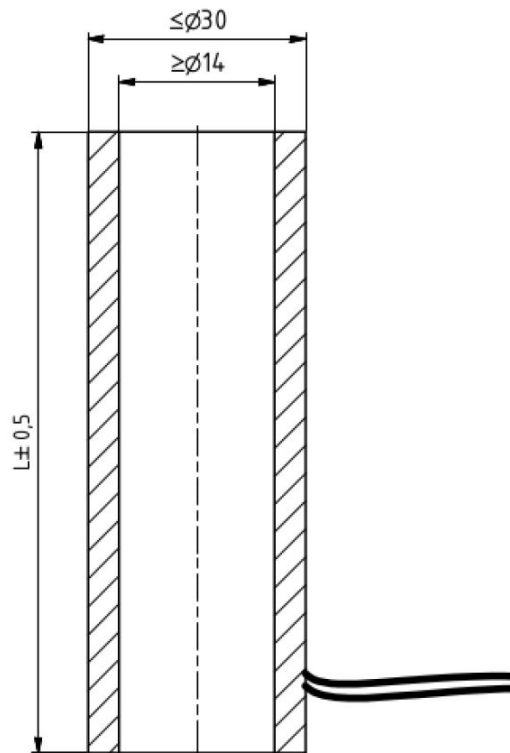


MECHANICAL ENGINEERING

Technical data of HPSt 25-15 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
HPSt 1000/25-15/07	7	0...+1000	9	50	13000	22000	85	1200
HPSt 1000/25-15/20	20	0...+1000	18	35	13000	22000	210	600
HPSt 1000/25-15/25	25	0...+1000	27	25	13000	22000	310	400
HPSt 1000/25-15/40	40	0...+1000	36	20	13000	22000	420	300
HPSt 1000/25-15/60	60	0...+1000	54	15	13000	22000	650	180
HPSt 1000/25-15/80	80	0...+1000	72	12	13000	22000	900	130

Technical drawing of HPSt 25-15 series



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the best solution.

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