

## ABOUT HPOWER

hpower actuators combine fastest response times in  $\mu\text{s}$ , 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 10-5

SERIES HPST WITHOUT CASING AND WITHOUT PRELOAD, DIAMETER 10-5MM



### 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.

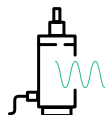
### Product highlights

- max. load: 3500 N
- max. force generation: 2800 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)

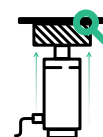
### Applications:



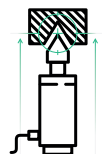
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING

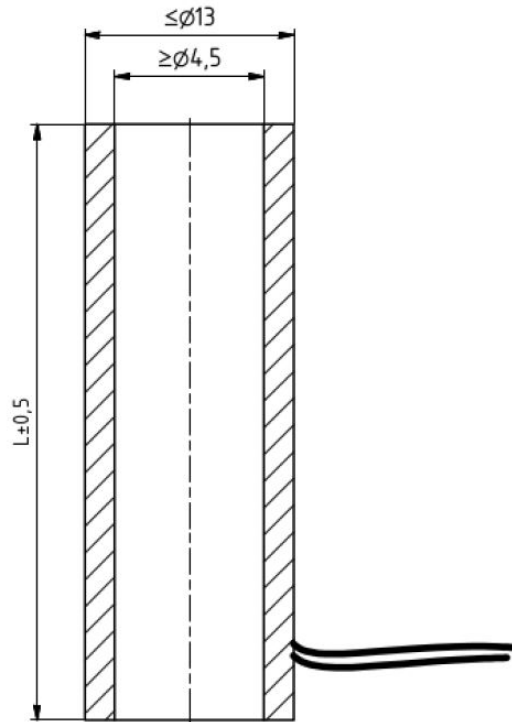


MECHANICAL ENGINEERING

### Technical data of HPSt 10-5 series

type	motion, $\mu\text{m}$	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, $\text{N}/\mu\text{m}$
HPSt 1000/10-5/07	7	0...+1000	9	50	2800	3500	15	210
HPSt 1000/10-5/20	20	0...+1000	18	35	2800	3500	40	110
HPSt 1000/10-5/25	25	0...+1000	27	25	2800	3500	65	75
HPSt 1000/10-5/40	40	0...+1000	36	20	2800	3500	90	55
HPSt 1000/10-5/60	60	0...+1000	54	15	2800	3500	140	35

### Technical drawing of HPSt 10-5 series



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

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