

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.

STACK TYPE ACTUATORS SERIES PSt 1000/10

SERIES PST WITHOUT CASING AND
WITHOUT PRELOAD, DIAMETER 10MM



Concept

Solid stack type actuators are made based on a special smart material known as PZT ceramics. This enables these actuators to achieving outstanding performance with a motion range from $0\mu\text{m}$ to $260\mu\text{m}$ or even higher on request, while generating maximum force of up to 4kN. The actuators are available in different lengths, a stack with a length of 50 mm usually possesses a maximum motion of 50 - 70 μm (0.1% - 0.15% of the length).

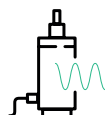
Product highlights

- max. load: 5000 N
- max. force generation: 4000 N
- high stiffness
- high resonant frequency

Options

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

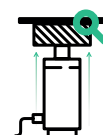
Applications:



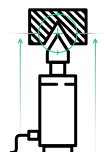
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING

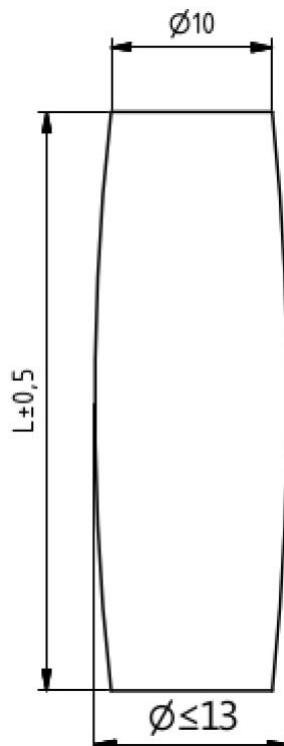


MECHANICAL
ENGINEERING

Technical data of PSt 1000/10 series

| type | motion, μm | voltage range, V | Length, mm | resonant frequency, kHz | Blocking force, N | Maximum load, N | Capacity, nF | Stiffness, N/ μm |
|----------------|-----------------------|------------------|------------|-------------------------|-------------------|-----------------|--------------|-----------------------------|
| PSt 1000/35/07 | 7 | 0...+1000 | 9 | 60 | 12000 | 15000 | 20 | 300 |
| PSt 1000/35/20 | 20 | 0...+1000 | 18 | 40 | 12000 | 15000 | 45 | 150 |
| PSt 1000/35/40 | 40 | 0...+1000 | 36 | 25 | 12000 | 15000 | 110 | 75 |
| PSt 1000/35/60 | 60 | 0...+1000 | 54 | 20 | 12000 | 15000 | 170 | 50 |
| PSt 1000/35/80 | 80 | 0...+1000 | 72 | 15 | 12000 | 15000 | 220 | 35 |

Technical drawing of PSt 1000/10 series



Get in touch with us
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the best solution.

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