

## 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.

## RING TYPE ACTUATORS SERIES HPSt 1000/15-8 VS22

SERIES HPST WITH CASING AND PRE-LOAD, DIAMETER 22 MM



### 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: 9000 N
- max. force generation: 5500 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:



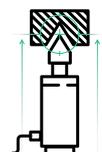
MODAL  
ANALYSIS



VIBRATION  
CONTROL



MATERIAL  
TESTING

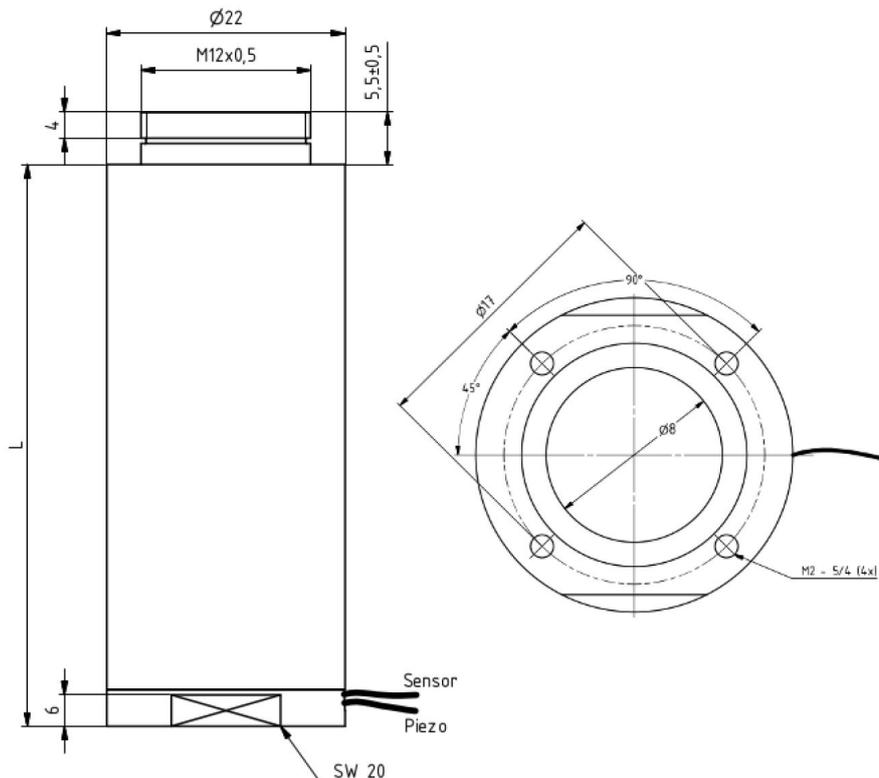


MECHANICAL  
ENGINEERING

### Technical data of HPSt 1000/15-8 VS22 series

type	motion, $\mu\text{m}$	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ $\mu\text{m}$
HPSt 1000/15-8/7 VS22	7	0...+1000	26	35	5500	9000	35	600
HPSt 1000/15-8/20 VS22	20	0...+1000	35	27	5500	9000	90	300
HPSt 1000/15-8/25 VS22	25	0...+1000	44	22	5500	9000	130	200
HPSt 1000/15-8/40 VS22	40	0...+1000	53	17	5500	9000	180	150
HPSt 1000/15-8/60 VS22	60	0...+1000	71	14	5500	9000	270	100
HPSt 1000/15-8/80 VS22	80	0...+1000	89	12	5500	9000	360	70

### Technical drawing of HPSt 1000/15-8 VS22 series



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

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