

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.

RING TYPE ACTUATORS SERIES HPSt 1000/35-25 VS45

SERIES HPST WITH CASING AND PRE-LOAD, DIAMETER 45 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.

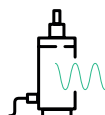
Product highlights

- max. load: 35000 N
- max. force generation: 20000 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)

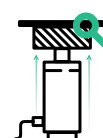
Applications:



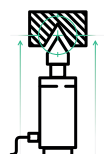
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING

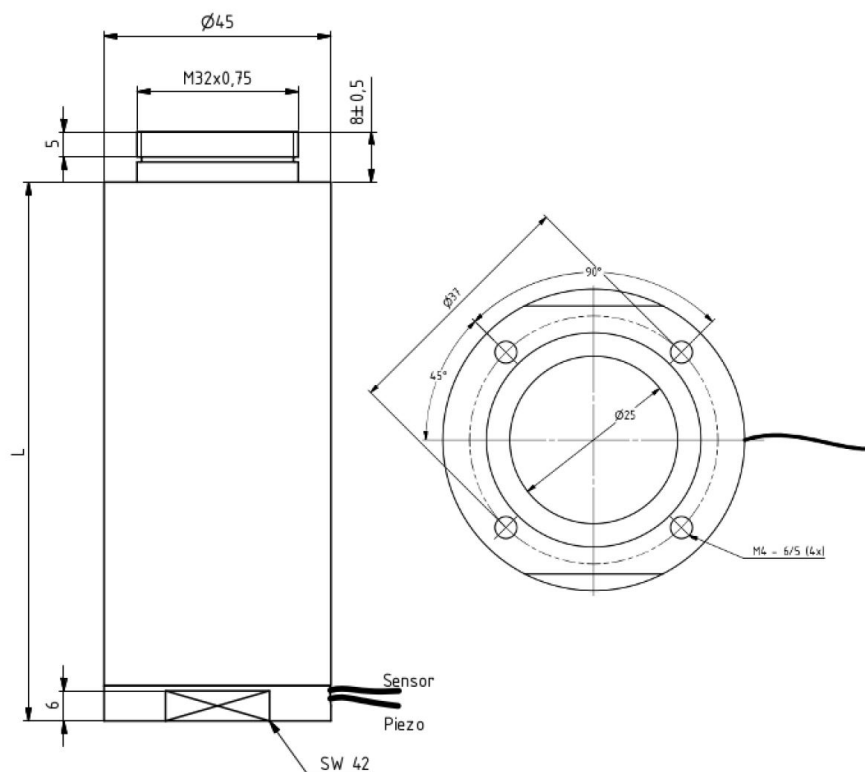


MECHANICAL
ENGINEERING

Technical data of HPSt 1000/35-25 VS45 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
HPSt 1000/35-25/7 VS45	7	0...+1000	26	40	20000	35000	120	2000
HPSt 1000/35-25/20 VS45	20	0...+1000	35	30	20000	35000	300	1000
HPSt 1000/35-25/25 VS45	25	0...+1000	44	25	20000	35000	450	700
HPSt 1000/35-25/40 VS45	40	0...+1000	53	20	20000	35000	600	500
HPSt 1000/35-25/60 VS45	60	0...+1000	71	15	20000	35000	900	350
HPSt 1000/35-25/80 VS45	80	0...+1000	89	12	20000	35000	1300	250
HPSt 1000/35-25/100 VS45	100	0...+1000	107	10	20000	35000	1800	160

Technical drawing of HPSt 1000/35-25 VS45 series



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the best solution.

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