

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.

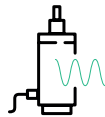
Product highlights

- 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)

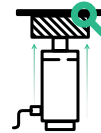
Applications:



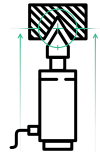
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



MECHANICAL
ENGINEERING

Technical data of HPSt 10-5 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/μm
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

BARE RING TYPE ACTUATORS SERIES HPSt 15-8

SERIES HPST WITHOUT CASING AND
WITHOUT PRELOAD, DIAMETER 15-8MM



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.

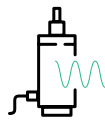
Product highlights

- 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)

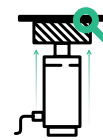
Applications:



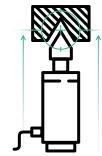
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



MECHANICAL
ENGINEERING

Technical data of HPSt 15-8 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/μm
HPSt 1000/15-8/07	7	0...+1000	9	50	5500	9000	35	600
HPSt 1000/15-8/20	20	0...+1000	18	35	5500	9000	90	300
HPSt 1000/15-8/25	25	0...+1000	27	25	5500	9000	130	200
HPSt 1000/15-8/40	40	0...+1000	36	20	5500	9000	180	150
HPSt 1000/15-8/60	60	0...+1000	54	15	5500	9000	270	100
HPSt 1000/15-8/80	80	0...+1000	72	12	5500	9000	360	70

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.

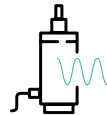
Product highlights

- 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)

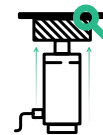
Applications:



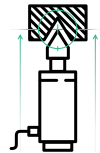
MODAL
ANALYSIS



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

BARE RING TYPE ACTUATORS SERIES HPSt 35-25

SERIES HPST WITHOUT CASING AND
WITHOUT PRELOAD, DIAMETER 35-25MM



Concept

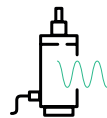
Ring type actuators based on a hollow cylindrical design. Compared with stack type actuators, ring actuators have a higher bending stability, better heat management efficiency and allow access to system axis. Given the same volume of PZT material, a ring actuator has a larger total diameter, which results 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

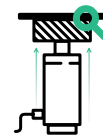
- low temperature modification
- ultra high vacuum (UHV) modification
- strain gage (SG) measurement system
- piezo material HP (high power & capacitance)



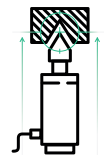
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



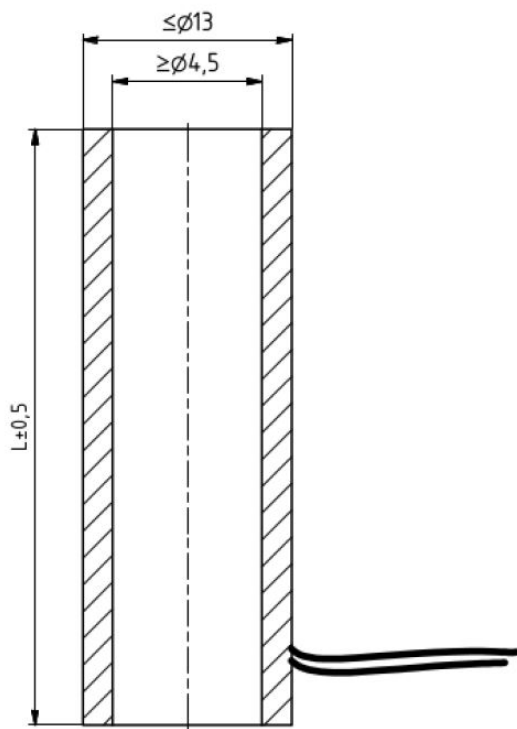
MECHANICAL
ENGINEERING

Applications:

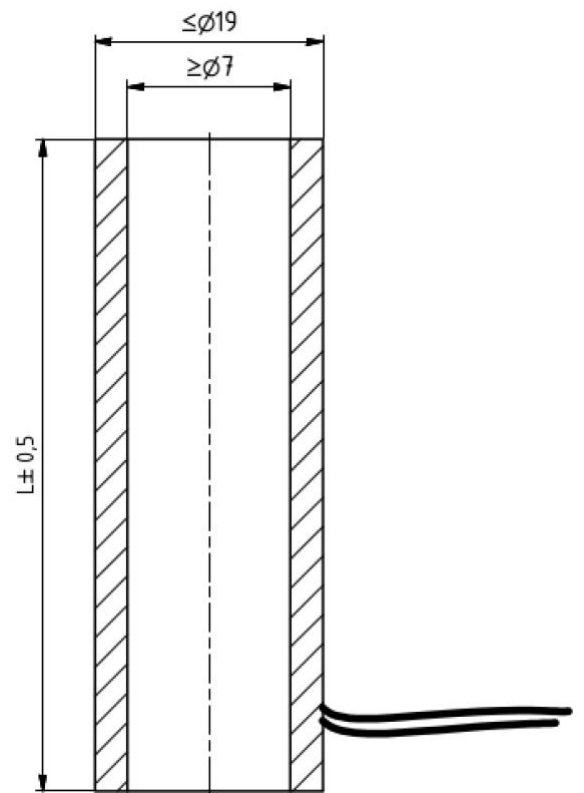
Technical data of HPSt 35-25 series

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	20000	35000	120	2000
HPSt 1000/25-15/20	20	0...+1000	18	35	20000	35000	300	1000
HPSt 1000/25-15/25	25	0...+1000	27	25	20000	35000	450	700
HPSt 1000/25-15/40	40	0...+1000	36	20	20000	35000	600	500
HPSt 1000/25-15/60	60	0...+1000	54	15	20000	35000	900	350
HPSt 1000/25-15/80	80	0...+1000	72	12	20000	35000	1300	250
HPSt 1000/25-15/100	100	0...+1000	90	10	20000	35000	1800	160

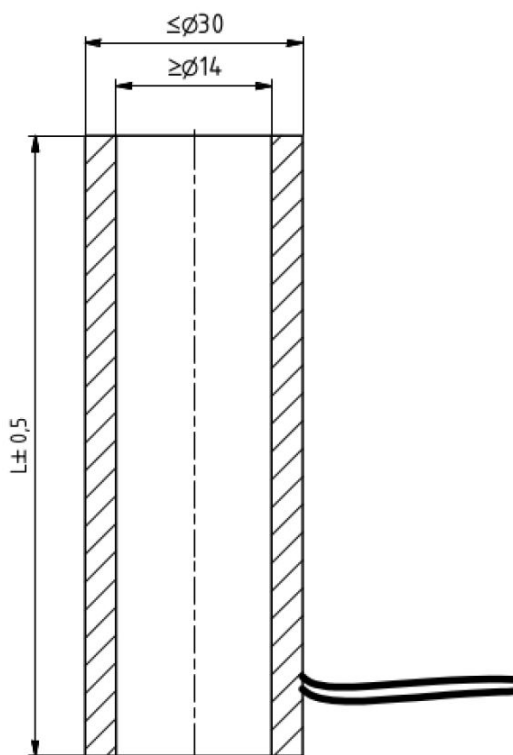
Technical drawing of HPSt 10-5 series



Technical drawing of HPSt 15-8 series



Technical drawing of HPSt 25-15 series



Technical drawing of HPSt 35-25 series

