

RING TYPE ACTUATORS SERIES HPSt 1000/10-5 VS18

SERIES HPST WITH CASING AND PRE-LOAD, DIAMETER 18 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.

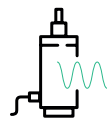
Product highlights

- max. load: 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)

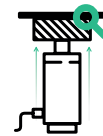
Applications:



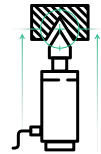
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING



MECHANICAL ENGINEERING

Technical data of HPSt 1000/10-5 VS18 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
HPSt 1000/10-5/7 VS18	7	0...+1000	24	35	2800	3500	15	210
HPSt 1000/10-5/20 VS18	20	0...+1000	33	27	2800	3500	40	110
HPSt 1000/10-5/25 VS18	25	0...+1000	42	22	2800	3500	65	75
HPSt 1000/10-5/40 VS18	40	0...+1000	54	20	2800	3500	90	55
HPSt 1000/10-5/60 VS18	60	0...+1000	69	17	2800	3500	140	35

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.

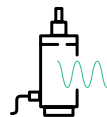
Product highlights

- 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)

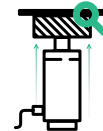
Applications:



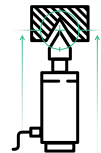
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



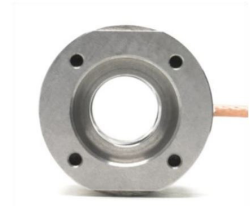
MECHANICAL
ENGINEERING

Technical data of HPSt 1000/15-8 VS22 series

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

RING TYPE ACTUATORS SERIES HPSt 1000/25-15 VS35

SERIES HPST WITH CASING AND PRE-LOAD, DIAMETER 35 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.

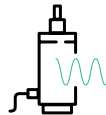
Product highlights

- max. load: 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)

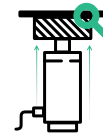
Applications:



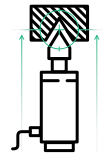
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



MECHANICAL
ENGINEERING

Technical data of HPSt 1000/25-15 VS35 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
HPSt 1000/25-15/7 VS35	7	0...+1000	26	40	13000	22000	85	1200
HPSt 1000/25-15/20 VS35	20	0...+1000	35	30	13000	22000	210	600
HPSt 1000/25-15/25 VS35	25	0...+1000	44	25	13000	22000	320	400
HPSt 1000/25-15/40 VS35	40	0...+1000	53	20	13000	22000	420	300
HPSt 1000/25-15/60 VS35	60	0...+1000	71	15	13000	22000	650	180
HPSt 1000/25-15/80 VS35	80	0...+1000	89	12	13000	22000	900	130

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.

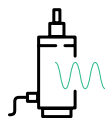
Product highlights

- 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)

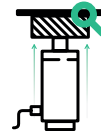
Applications:



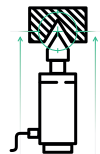
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING

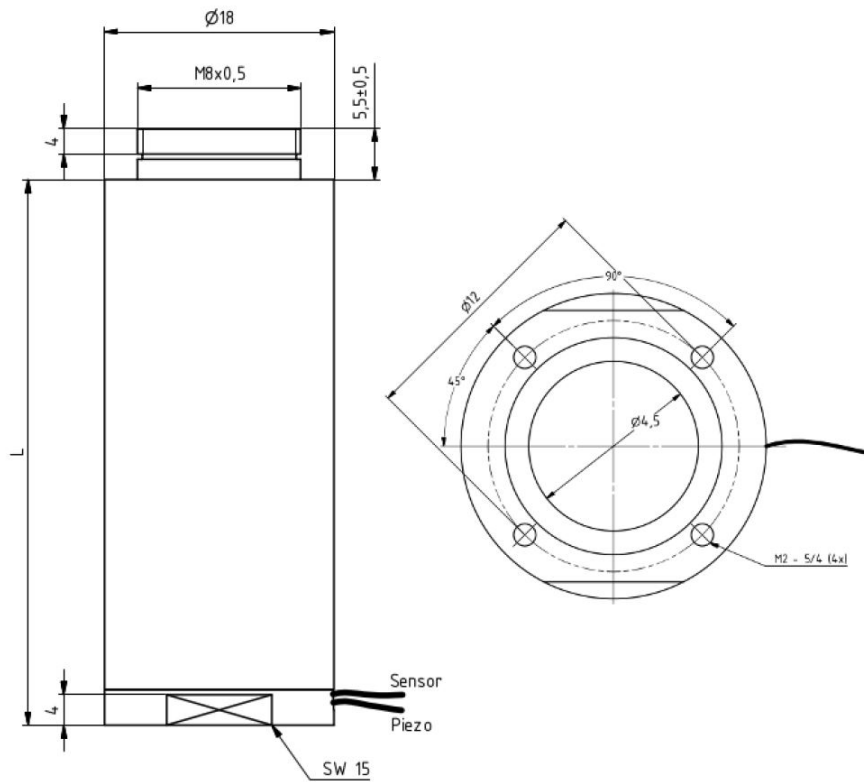


MECHANICAL
ENGINEERING

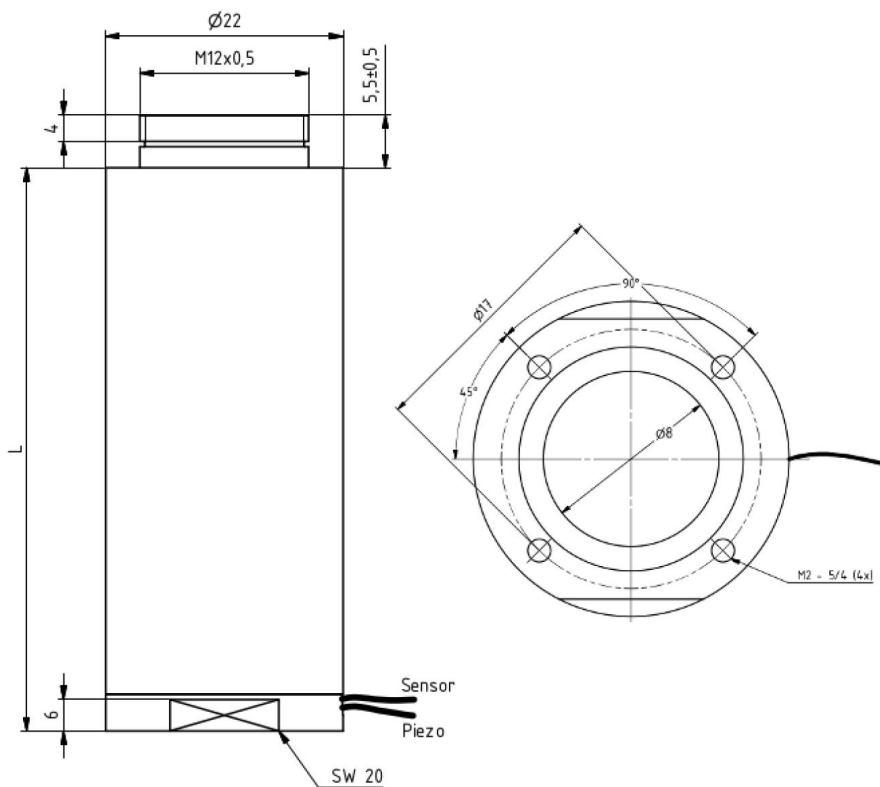
Technical data of HPSt 1000/35-25 VS45 series

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

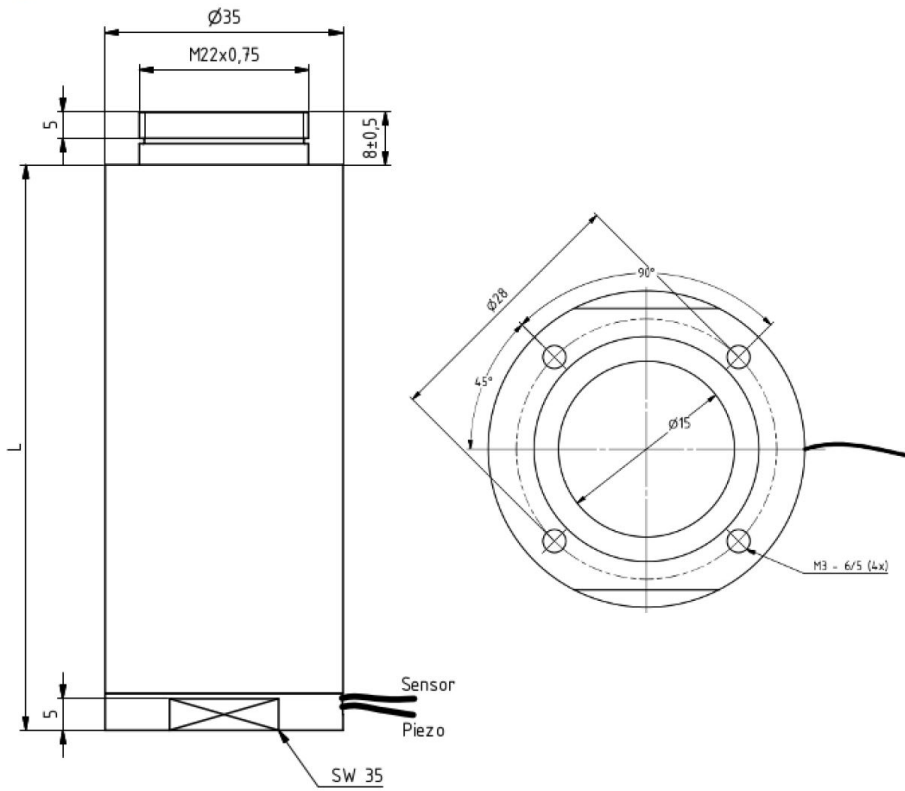
Technical drawing of HPSt 1000/10-5 VS18 series



Technical drawing of HPSt 1000/15-8 VS22 series



Technical drawing of HPSt 1000/25-15 VS35 series



Technical drawing of HPSt 1000/35-25 VS45 series

