

STACK TYPE ACTUATORS SERIES PSt 1000/10 VS18

SERIES PST WITH CASING AND PRELOAD,
DIAMETER 18 MM



Concept

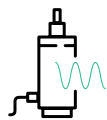
Solid Stack type actuators with casing and preload are based on a special smart material known as PZT ceramics. This enables these actuators to achieving outstanding performance with a motion range from 0 μm to 150 μm or even higher on request, while generating maximum forces of up to 4kN. The actuators are available in different lengths, a stack with a length of 50 mm usually possesses a maximum motion of 50 μm to 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)



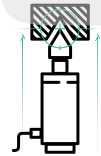
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING



MECHANICAL ENGINEERING

Applications:

Technical data of PSt 1000/10 VS18 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
PSt 1000/10/7 VS18	7	0...+1000	24	40	4000	5000	20	300
PSt 1000/10/20 VS18	20	0...+1000	33	35	4000	5000	45	450
PSt 1000/10/40 VS18	40	0...+1000	51	27	4000	5000	110	75
PSt 1000/10/60 VS18	60	0...+1000	69	23	4000	5000	170	50
PSt 1000/10/80 VS18	80	0...+1000	87	20	4000	5000	220	35
PSt 1000/10/100 VS18	100	0...+1000	105	15	4000	5000	270	30

STACK TYPE ACTUATORS SERIES PSt 1000/16 VS25

SERIES PST WITH CASING AND PRELOAD,
DIAMETER 25 MM



Concept

Solid Stack type actuators with casing and preload are based on a special smart material known as PZT ceramics. This enables these actuators to achieving outstanding performance with a motion range from 0 μm to 150 μm or even higher on request, while generating maximum forces of up to 12kN. The actuators are available in different lengths, a stack with a length of 50 mm usually possesses a maximum motion of 50 μm to 70 μm (0.1% - 0.15% of the length)

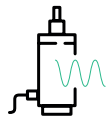
Product highlights

- max. load: 15000 N
- max. force generation: 12000 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)

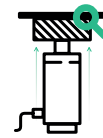
Applications:



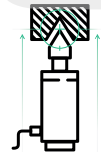
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



MECHANICAL
ENGINEERING

Technical data of PSt 1000/16 VS25 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
PSt 1000/16/7 VS25	7	0...+1000	29	40	12000	15000	60	800
PSt 1000/16/20 VS25	20	0...+1000	35	35	12000	15000	150	400
PSt 1000/16/40 VS25	40	0...+1000	53	30	12000	15000	360	200
PSt 1000/16/60 VS25	60	0...+1000	71	27	12000	15000	540	120
PSt 1000/16/80 VS25	80	0...+1000	89	23	12000	15000	720	90
PSt 1000/16/100 VS25	100	0...+1000	107	20	12000	15000	900	75

STACK TYPE ACTUATORS SERIES PSt 1000/25 VS35

SERIES PST WITH CASING AND PRELOAD,
DIAMETER 35 MM



Concept

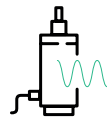
Solid Stack type actuators with casing and preload are based on a special smart material known as PZT ceramics. This enables these actuators to achieving outstanding performance with a motion range from 0 μm to 150 μm or even higher on request, while generating maximum forces of up to 25kN. The actuators are available in different lengths, a stack with a length of 50 mm usually possesses a maximum motion of 50 μm to 70 μm (0.1% - 0.15% of the length)

Product highlights

- max. load: 35000 N
- max. force generation: 25000 N
- high stiffness
- high resonant frequency

Options

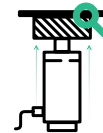
- low temperature modification
- ultra high vacuum (UHV) modification
- strain gage (SG) measurement system
- piezo material HP (high power & capacitance)



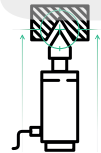
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING



MECHANICAL ENGINEERING

Applications:

Technical data of PSt 1000/25 VS35 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
PSt 1000/25/7 VS35	7	0...+1000	33	40	25000	35000	140	1800
PSt 1000/25/20 VS35	20	0...+1000	42	35	25000	35000	350	900
PSt 1000/25/40 VS35	40	0...+1000	60	30	25000	35000	800	450
PSt 1000/25/60 VS35	60	0...+1000	78	27	25000	35000	1250	300
PSt 1000/25/80 VS35	80	0...+1000	96	23	25000	35000	1700	250
PSt 1000/25/100 VS35	100	0...+1000	114	20	25000	35000	2150	180

STACK TYPE ACTUATORS SERIES PSt 1000/35 VS45

SERIES PST WITH CASING AND PRELOAD,
DIAMETER 45 MM



Concept

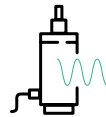
Solid Stack type actuators with casing and preload are based on a special smart material known as PZT ceramics. This enables these actuators to achieving outstanding performance with a motion range from 0 μm to 150 μm or even higher on request, while generating maximum forces of up to 50kN. The actuators are available in different lengths, a stack with a length of 50 mm usually possesses a maximum motion of 50 μm to 70 μm (0.1% - 0.15% of the length)

Product highlights

- max. load: 70000 N
- max. force generation: 50000 N
- high stiffness
- high resonant frequency

Options

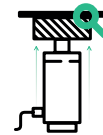
- low temperature modification
- ultra high vacuum (UHV) modification
- strain gage (SG) measurement system
- piezo material HP (high power & capacitance)



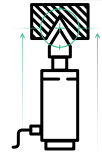
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



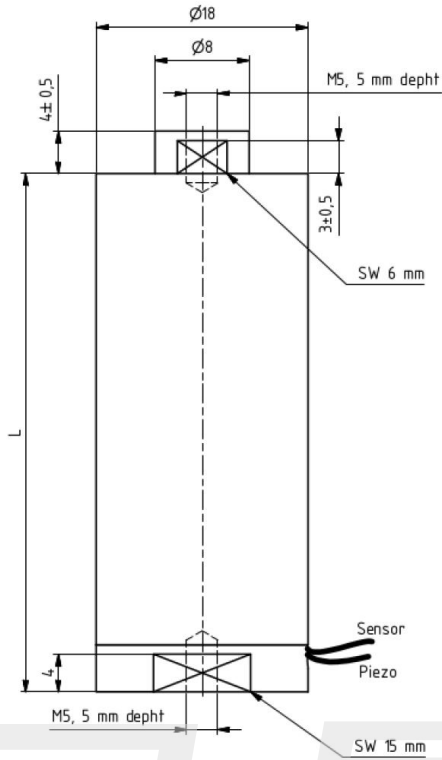
MECHANICAL
ENGINEERING

Applications:

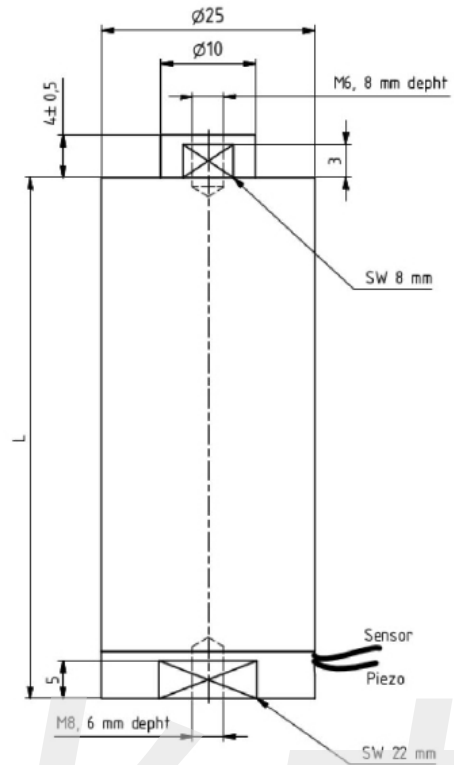
Technical data of PSt 1000/35 VS45 series

type	motion, μm	voltage range, V	Length, mm	resonant frequency, kHz	Blocking force, N	Maximum load, N	Capacity, nF	Stiffness, N/ μm
PSt 1000/35/7 VS45	7	0...+1000	33	37	50000	70000	300	4000
PSt 1000/35/20 VS45	20	0...+1000	42	33	50000	70000	800	2000
PSt 1000/35/40 VS45	40	0...+1000	60	28	50000	70000	1600	1000
PSt 1000/35/60 VS45	60	0...+1000	78	25	50000	70000	2500	600
PSt 1000/35/80 VS45	80	0...+1000	96	21	50000	70000	3300	450
PSt 1000/35/100 VS45	100	0...+1000	114	18	50000	70000	4100	350

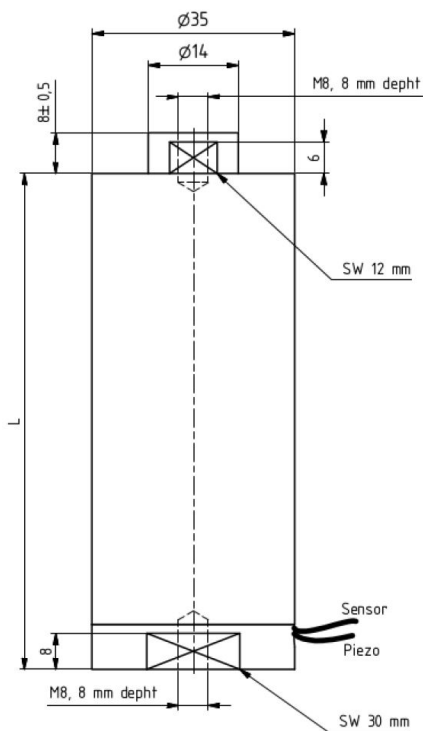
Technical drawing of PSt 1000/10 VS18 series



Technical drawing of PSt 1000/16 VS25 series



Technical drawing of PSt 1000/25 VS35 series



Technical drawing of PSt 1000/35 VS45 series

