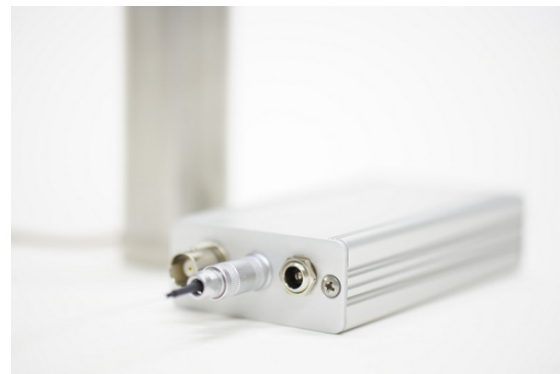


ABOUT HPOWER

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.

FORCE SENSOR FOR HPOWER ACTUATORS

FORCE SENSOR WITH SIGNAL AMPLIFIER



miniature force sensor with signal amplifier

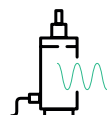
Concept

hpower is now offering the world's first integrated force sensor for high power actuators. This additional feature is fully integrated into the actuator's casing, making it possible to directly and precisely measure both static and dynamic forces up to 10kN. The force sensor allows you to characterize the performance of the actuator by the stroke, frequency and force relationship; Therefore enabling you to further finetune and optimize your existing set up. The integration of the sensor directly into the actuator's casing gives your additional space for your application and avoids any direct contact to the sensor.

Product highlights

- integrated force sensor element
- separate signal amplifier
- measurement range: 0 kN to +10 kN
- compact design
- robust metal casing
- 12 Vdc power supply
- output voltage: 0 to +10 V

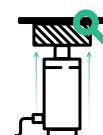
Applications:



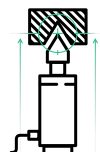
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



MECHANICAL
ENGINEERING

Technical data of force sensor

	unit	Integrated force sensor for hpower actuators		
part no.	-	H-FS25	H-FS35	H-FS45
corresponding actuator series	-	PSt 1000/16/...VS25	PSt 1000/25/...VS35	PSt 1000/35/...VS45
max. measurement range	kN	0 ... +10		
nonlinearity*	%	3%		
output noise	mV	2.7 (@30Hz...300kHz)		
output voltage	V	0...+10		
Bandwidth (-3dB)	kHz	3.2		
output connector	-	BNC		
sensor connector	-	LEMO 0S.304		
power supply	-	12 V _{Dc}		
dimensions (l x h x w)	mm	120 x 24 x 55		
weight	g	130		

Force data measured by the sensor

