

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, shock generators and high power amplifiers. hpower is the result of the collaboration between piezosystem jena and Piezomechanik GmbH and therefore combines centuries of piezo expertise with new innovations.

HPOWER AMPLIFIER SVR 1000/3

Analog amplifier with voltage range from
-200 to +1000 V



analog amplifier SVR 1000/3

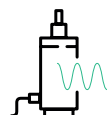
Concept

The voltage amplifier **SVR 1000/3** is specially designed to be used with hpower actuators or other capacitive loads in a semi bipolar manner. In this operating mode, the actuators can generate $\approx 30\%$ more elongation because of the voltage range from -200 to +1000V. **SVR 1000/3** is well suited for static and quasi-static applications.

Product highlights

- for static and quasi-static applications
- three channel amplifier
- output current: 8 mA
- output voltage: -200 ... 1000 V
- noise $\leq 1\text{m Vpp}$
- bandwidth: 10000 Hz

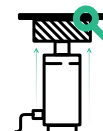
Applications:



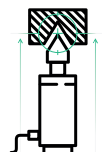
MODAL
ANALYSIS



VIBRATION
CONTROL



MATERIAL
TESTING



MECHANICAL
ENGINEERING

Technical data of SVR 1000/3

	unit	SVR 1000/3
output		
voltage range	V	-200 ... +1000
DC-offset range	V	-200 ... +1000
gain	-	100
max. output current	mA	8
signal noise	mVpp	≈ 2 (with capacitive loads ≥100 nF)
plug	-	D-SUB 5W1
input		
voltage range	V	-2 ... +10
input resistance	kΩ	10
plug	-	BNC
monitor output		
voltage range	V	-2 ... +10
plug	-	BNC
voltage supply		
mains voltage	V AC	230/115 ± 10% @ 50/60 Hz
power switch	-	trigger switch / rear side
fuse	-	0.4 @230V (slow blow) / 0.8 @ 115V (slow blow)
dimensions (w × d × h)	mm / "	225 × 330 × 160 / 9 × 13 × 6.3
weight	kg / lbs	4.8 / 10.6

SVR 350 bip

Bipolar voltage amplifier

Concept:

The bipolar voltage amplifiers of the series **SVR 350 bip** generate a symmetric bipolar voltage. The output voltage can be adjusted manual or via an external signal source.

Specials:

Due to the bipolar generation of the voltage the amplifiers are particularly suited to control shear and bimorph elements as well as other applications with symmetric voltage generation.

Mounting:

The amplifiers of the series **SVR 350 bip** comes as single or three channel version.



Image: SVR 350/3 bip and SVR 350/1 bip

Product highlights:

- Symmetric bipolar voltage generation
- Low noise
- Max. output current 12 mA

Application examples:

- Bimorph elements
- Sheer actuators
- Symmetric voltage generation

SVR 350 bip

Technical data

	unit	SVR 350/1 bip	SVR 350/3 bip
output			
voltage	V	±350	
DC-offset range	V	±350	
gain	-	70	
max. output current	mA	12	
signal noise	mV _{pp}	≈1 (with capacitive loads ≥100 nF)	
plug	-	D-Sub 5W1	
input			
voltage range	V	±5	
input resistance	kΩ	10	
plug	-	BNC	
monitor output			
voltage range	V	±3.5	
plug	-	BNC	
voltage supply			
mains voltage	V AC	230/115 ±10% @50/60 Hz (preset from factory)	
power switch	-	trigger switch (rear side)	
fuse	-	0.8 @230/115 V (slow blow)	
dimensions (w x d x h)	mm/"	210 x 250 x 90/8.3 x 10 x 3.5	225 x 330 x 160/9 x 13 x 6.3
weight	kg/lbs	2.8/6.2	4.8/10.6