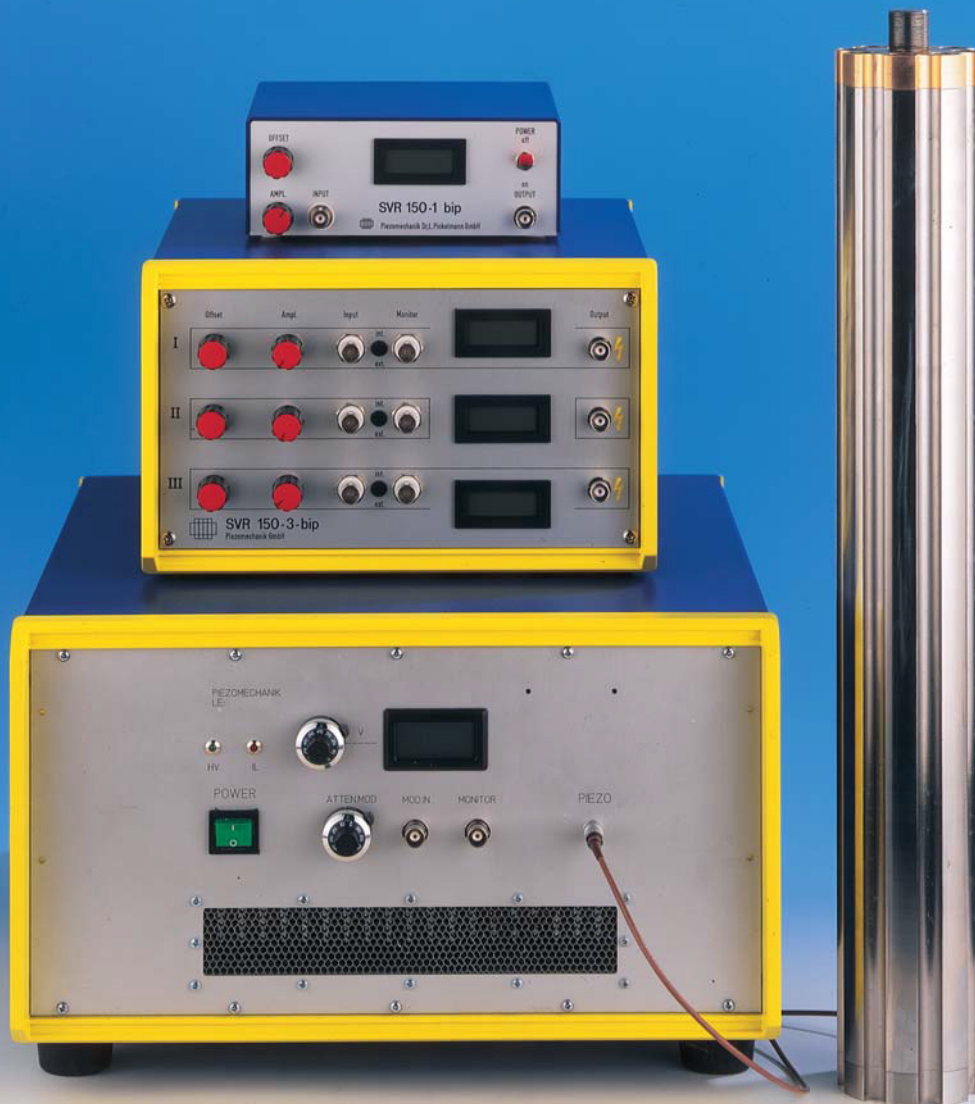


Electronic Supplies for Piezomechanics: Technical Data



Content

Analogue Amplifiers SVR

SVR-150:	-30 V / +150 V, 60 mA	3
SVR-200:	-50 V / +200 V, 45 mA	4
SVR-500:	-100 V / +500 V, 15 mA	5
SVR-1000:	-200 V / +1000 V, 8 mA	6
SVR-150bip:	+/-150 V, 30 mA.	7
SVR-350bip:	+/-350 V, 15 mA.	8

Analogue High Power Amplifiers LE

LE 150/100 EBW: 0 V / +150 V, 1200 mA, 70 KHz	9
LE 200/070 EBW: 0 V / +200 V, 700 mA	10

Analogue High Power / High Voltage Amplifiers

LE 430/015: 0 V / +430 V, 150 mA	11
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Accessories 12

PIEZOMECHANIK offers on request

High power analogue amplifiers 150V/200V/500V up to 5 Amperes

High power switcher amplifiers up to 1000V, up to 10 Amperes

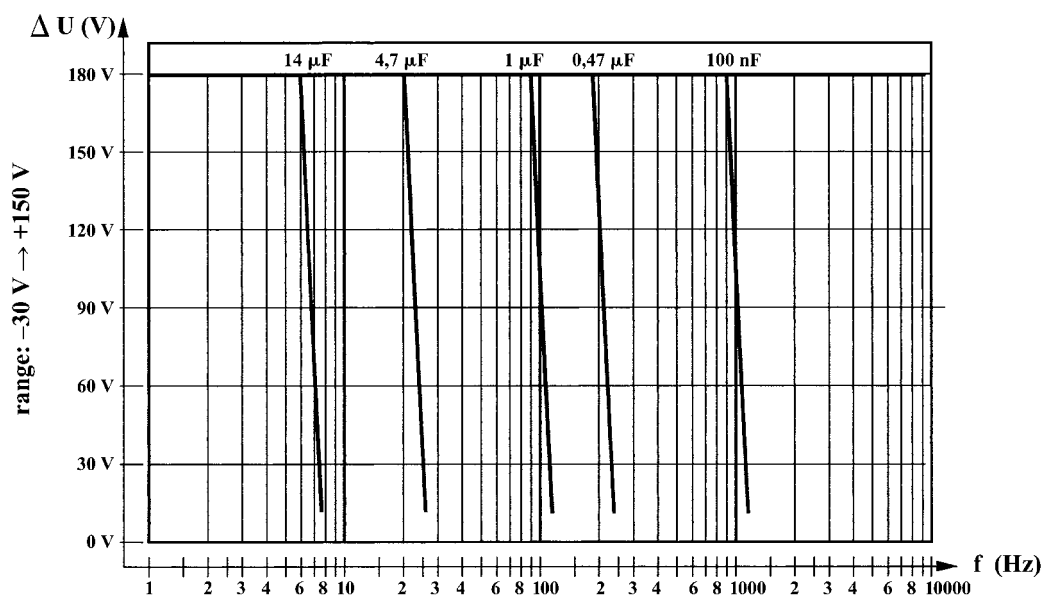
High power pulsers for piezo shock generation up to 1000V/200 A

Analog Amplifiers SVR

Low voltage/high voltage types available
 Lowest noise levels
 Semibipolar operation
 for enhanced actuator stroke/force generation

SVR 150/1 (single channel) SVR 150/3 (3 independent channels)

Voltage range:
 –30 V thru +150 V (semibipolar)
 Manual setting of DC-Offset
 (superimposed to external signal)
 Variable attenuation



Input:

Signal: ± 5 V (± 10 V with attenuation)
 Impedance: 5 kOhms
 Connector: BNC

Output:

Connector: BNC
 Voltage total: –30 V thru +150 V
 DC-Offset range: –30 V thru +150 V
 Gain: 30 (without attenuation)
 Max. current: 60 mA
 Noise: 0.3 mVpp (for 4.7 Farad load)
 Display: LCD
 Dimensions W x D x H (mm):
 single channel: 165 x 200 x 65
 3-channels: 260 x 320 x 155
 Weight:
 single channel: 1.75 kg
 3-channels: 4.7 kg

Additional features of 3 channel SVR 150/3 amplifier:

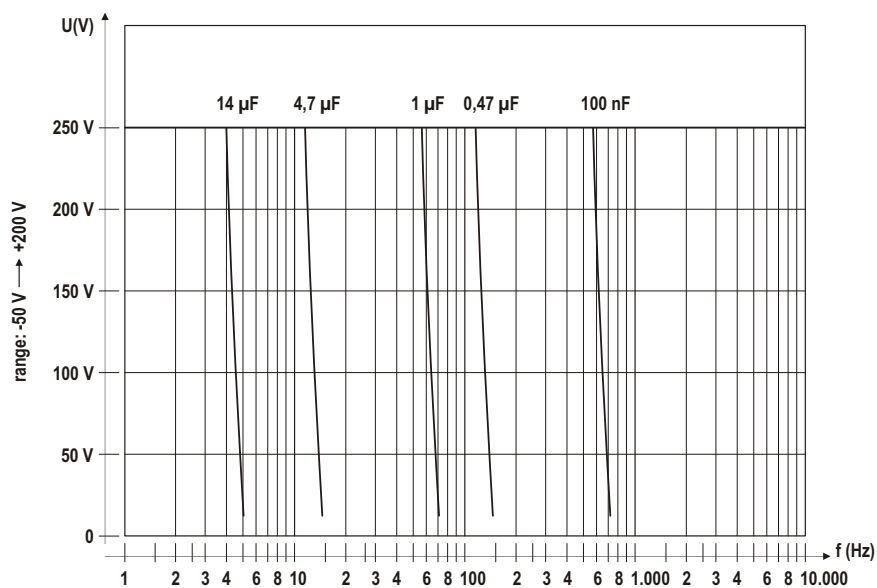
Monitor BNC output per channel:
 shows 1:1000 piezo voltage
 LC-Display per channel

SVR 200/1 (single channel) SVR 200/3 (3 independent channels)

Voltage range:
–50 V thru +200 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Additional features of 3 channel SVR 200/3 amplifier:

Monitor BNC output per channel:
shows 1:1000 piezo voltage
LC-Display per channel

Output:

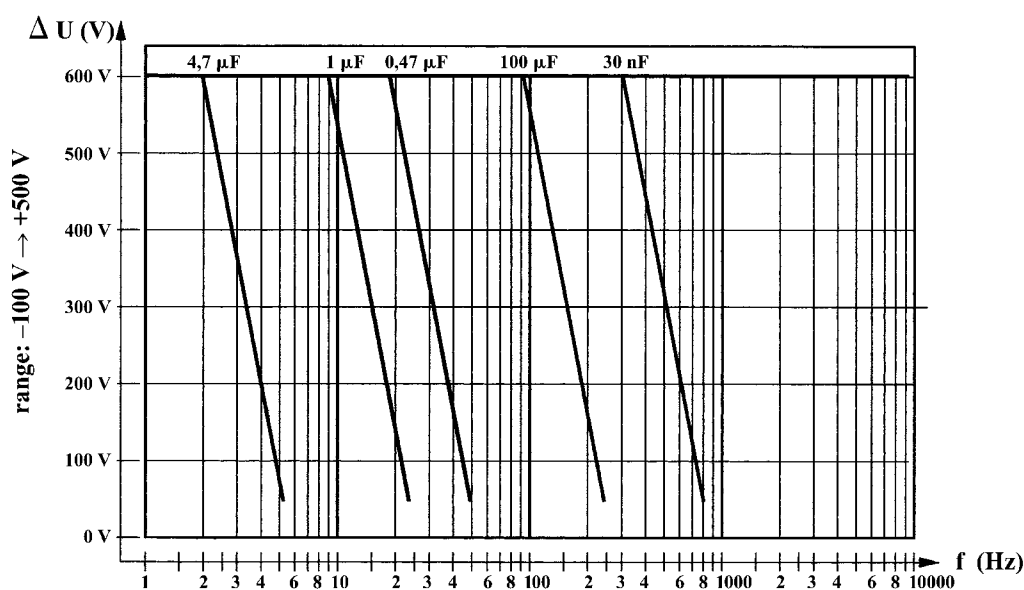
Connector: BNC
Voltage total: –50 V thru +200 V
DC-Offset range: –50 V thru +200 V
Gain: 40 (without attenuation)
Max. current: 45 mA
Noise: 1 mVpp (for 4 Farad load)
Display: LCD
Dimensions W x D x H (mm):
single channel: 165 x 200 x 65
3-channels: 260 x 320 x 155
Weight:
single channel: 1.75 kg
3-channels: 4.7 kg

SVR 500/1 (single channel) SVR 500/3 (3 independent channels)

Voltage range:
-100 V thru + 500 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Output:

Connector: BNC
Voltage total: -100 V thru +500 V
DC-Offset range: -100 V thru +500 V
Gain: 100 (without attenuation)
Max. current: 15 mA
Noise: 1 mVpp (for 1 Farad load)
Display: LCD
Dimensions W x D x H (mm):
single channel: 165 x 200 x 65
3-channels: 260 x 320 x 155
Weight:
single channel: 1.75 kg
3-channels: 4.7 kg

Additional features of 3 channel SVR 500/3 amplifier:

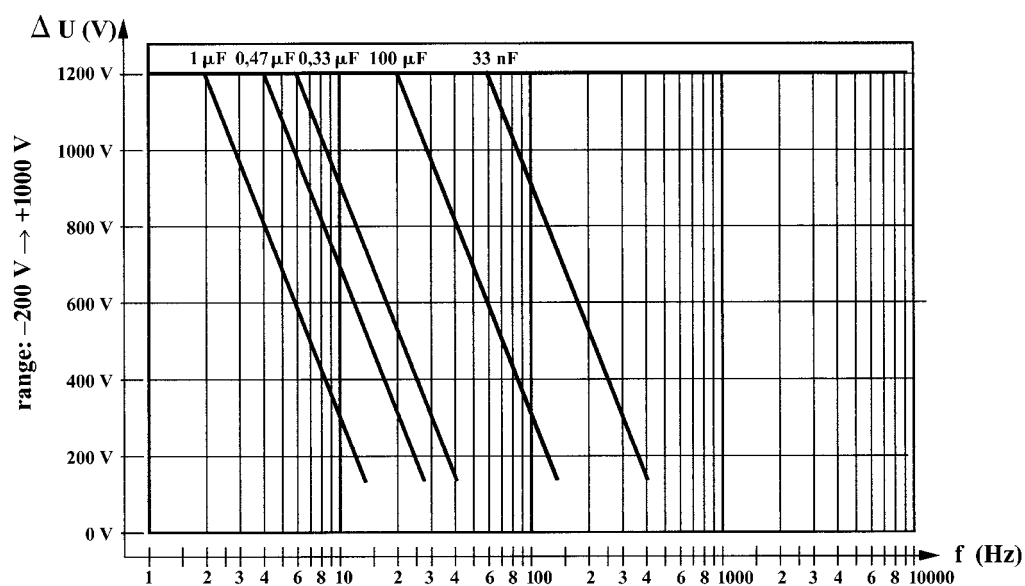
Monitor BNC output per channel:
shows 1:1000 piezo voltage
LC-Display per channel

SVR 1000/1 (single channel) SVR 1000/3 (3 independent channels)

Voltage range:
–200 V thru +1000 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Additional features of 3 channel SVR 1000/3 amplifier:

Monitor BNC output per channel:
shows 1:1000 piezo voltage
LC-Display per channel

Output:

Connector: Lemo OS.250
Voltage total: –200 V thru +1000 V
DC-Offset range: –200 V thru +1000 V
Gain: 200 (without attenuation)
Max. current: 8 mA
Noise: approx. 1 mVpp
(for 0.47 Farad load)
Display: LCD
Dimensions W x D x H (mm):
single channel: 165 x 200 x 65
3-channels: 260 x 320 x 155
Weight:
single channel: 1.75 kg
3-channels: 4.7 kg

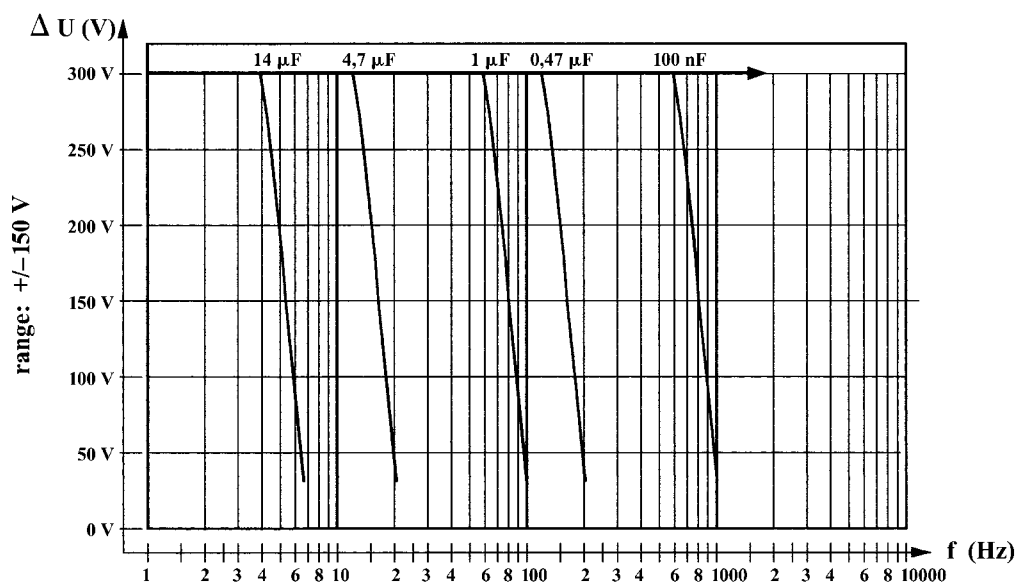
Bipolar Analog Amplifiers SVR

For operation of piezo bimorphs
Bipolar stacks
Shear elements
Other symmetric voltage activation

SVR 150bip/1 (single channel)
SVR 150bip/3 (3 independent channels)

Voltage range:
-150 V thru +150 V

Manual setting of DC-Offset
(superimposed to external signal)



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Output:

Connector: BNC
Voltage total: -150 V thru +150 V
DC-Offset range: -150 V thru +150 V
Gain: 30 (without attenuation)
Max. current: 30 mA
Noise: 0.3 mVpp (for 4.7 Farad load)
Display: LCD
Dimensions W x D x H (mm):
single channel: 165 x 200 x 65
3-channels: 260 x 320 x 155
Weight:
single channel: 1.75 kg
3-channels: 4.7 kg

Additional features of 3 channel SVR 150bip/3 amplifier:

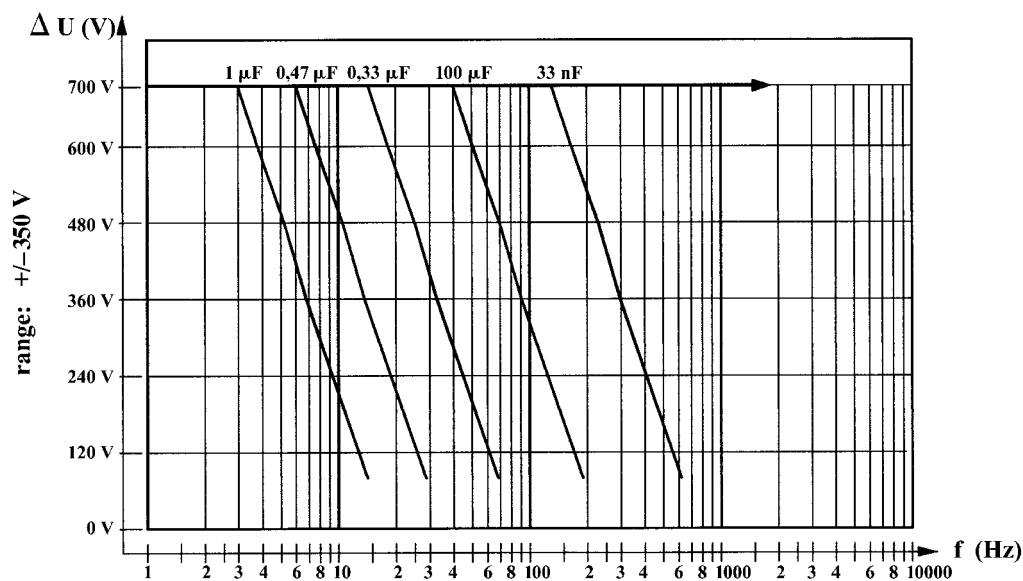
Monitor BNC output per channel:
shows 1:1000 piezo voltage
LC-Display per channel

SVR 350 bip/1 (single channel) SVR 350 bip/3 (3 independent channels)

Voltage range:
–350 V thru +350 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Output:

Connector: BNC
Voltage total: –350 V thru +350 V
DC-Offset range: –350 V thru +350 V
Gain: 70 (without attenuation)
Max. current: 15 mA
Noise: 1 mVpp (for 1 Farad load)
Display: LCD
Dimensions W x D x H (mm):
single channel: 165 x 200 x 65
3-channels: 260 x 320 x 155
Weight:
single channel: 1.75 kg
3-channels: 4.7 kg

Additional features of 3 channel SVR 350bip/3 amplifier:

Monitor BNC output per channel:
shows 1:1000 piezo voltage
LC-Display per channel

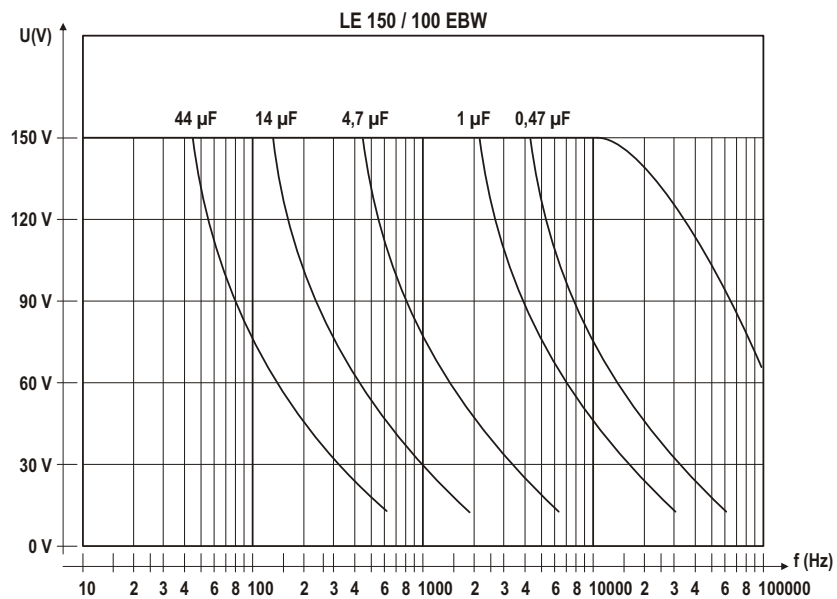
LE 150/100 EBW

Voltage range:
0 V/+150 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation

70 kHz bandwidth (-3 dB)



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Output:

Connector: BNC
Voltage total: 0 V thru +150 V
DC-Offset range: 0 V thru +150 V
Gain: 30 (without attenuation)
Peak current: 1200 mA
Average current: 350 mA
Noise: 20 mVpp (for 4.7 Farad load)
Display: LCD
Dimensions W x D x H (mm): 260 x 320 x 165
Weight: 6.8 kg

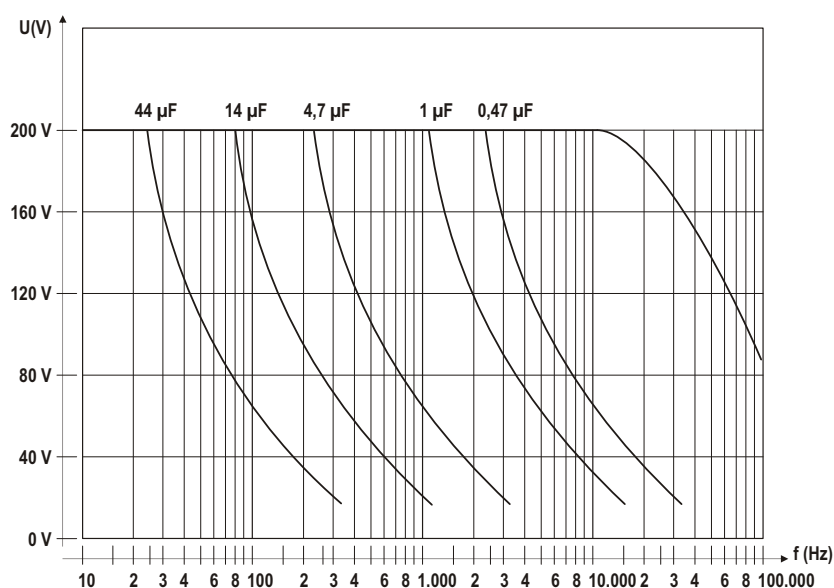
LE 200/070 EBW

Voltage range:
0 V/+200 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation

70 kHz bandwidth (-3 dB)



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Output:

Connector: BNC
Voltage total: 0 V thru +200 V
DC-Offset range: 0 V thru +200 V
Gain: 40 (without attenuation)
Peak current: 700 mA
Average current: 250 mA
Noise: 20 mVpp (for 4.7 Farad load)
Display: LCD
Dimensions W x D x H (mm):
320 x 260 x 165
Weight: 7 kg

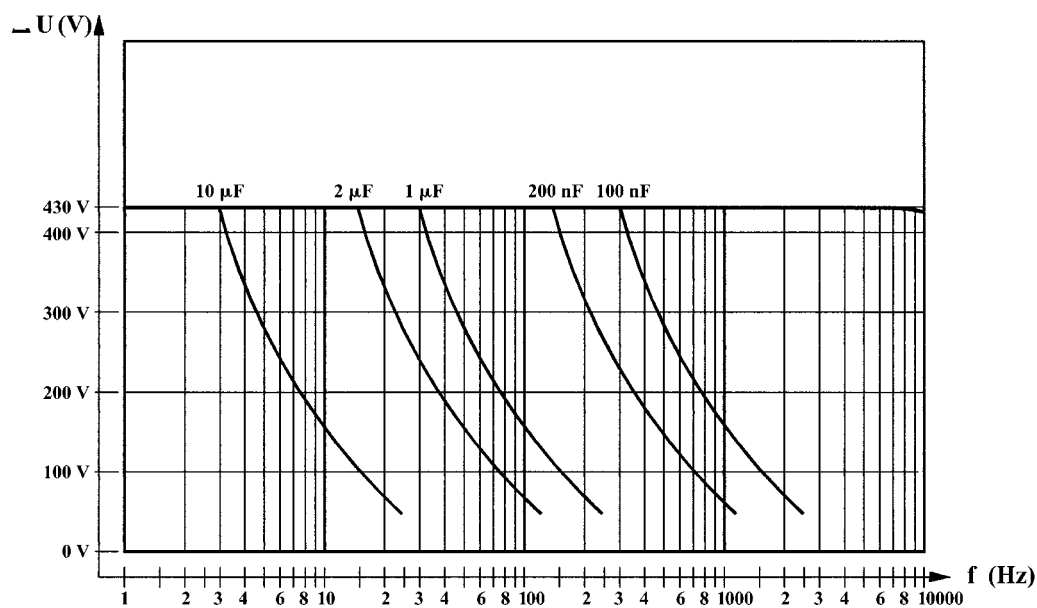
Analog High Voltage Amplifiers LE

LE 430/015 (single channel)

Voltage range:
0 V/+430 V

Manual setting of DC-Offset
(superimposed to external signal)

Variable attenuation



Input:

Signal: ± 5 V (± 10 V with attenuation)
Impedance: 5 kOhms
Connector: BNC

Output:

Connector: BNC
Voltage total: 0 V thru +430 V
DC-Offset range: 0 V thru +430 V
Gain: 86 (without attenuation)
Peak current: 150 mA (for 200 msec)
Average current: 30 mA
Noise: 10 mVpp (for 2.2 Farad load)
Display: LCD
Dimensions W x D x H (mm):
260 x 320 x 155
Weight: 4.6 kg

Accessories

PIEZOMECHANIK supplies a wide range of connecting systems, adaptors, extension cable to make the installation and compatibility of components as easy as possible.

When a complete actuator/amplifier system is ordered, the actuators will be equipped with the plugs corresponding the amplifier's connector.

Further adaptors are available for the combination of different connector systems.



Adaptors:

Plug	coupler
BNC	LEMOSA 00.250 (low voltage systems)
BNC	LEMOSA 0S.250 (high voltage systems)
LEMOSA 00.250	BNC
LEMOSA 0S.250	BNC

Coaxial cable RG 178 with plug – one end blunt, length 1.5 m standard, other lengths on request

LEMOSA plug 00.250
LEMOSA plug 0S.250
BNC

Extension cables with plug and coupling end, length standard 2 m, other lengths on request

LEMOSA 00.250 system
LEMOSA 0S.250 system

Extension cables combining different connector systems e.g. BNC-LEMOSA on request.



Low Voltage Piezo Actuators



Product range and technical data



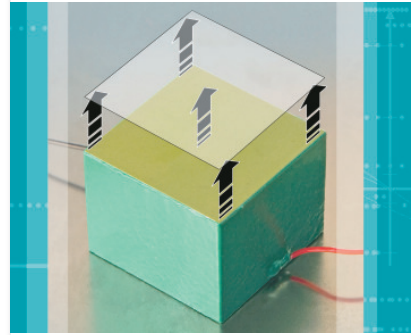
High Voltage Piezo Actuators



Product range and technical data

Low voltage co-fired multilayer stacks, rings and chips for actuation

(without casing)



Low voltage actuators with casings, high voltage actuators Check main catalogue

Piezomechanik GmbH

