This product family has been replaced by the following new product:

>> E-508 PICA™ HVPZT Piezo Amplifier Module

>> E-413 Compact Piezo Amplifier for DuraAct™ Patch Transducers and PICA™ Shear Piezo Actuators

E-507

HVPZT Piezo Amplifier Module

- **Up to 400 W Peak Power**
- **Output Voltage Range -3 to -1100 V & Bipolar**
- **±250 V for Shear Actuators**

The E-507.00 is a piezo driver module for high-voltage PZTs. It can output and sink a peakcurrent of 50 mA and an average current of 13 mA. The E-507.00 can be operated in two ways:

I. Manual Control:

The output voltage can be set by a 10-turn, DC-offset potentiometer in the range of -3 to -1000 Volts.

II. External Control:

Out-put voltage is controlled by an analog signal applied to the BNC input ranging from 0 to 11 Volts. Multiplying by the gain factor of -100, an output voltage range of -3 to -1100 Volts results. The DC-offset potentiometer adds a DC bias to the input, allowing continuous shifting of the input range between 0 V to +10 V and -10 V to 0 V (see page 6-52).

For computer-controlled operation, an E-516.i3 20-bit DAC interface/display module can be used (requires E-500/ E-501 chassis). See graph for frequency response with selected HVPZTs.

E-507.OE is the high current OEM version of E-507.00, especially designed for switching applications. It can output a peak-current of 400 mA for 5 msec. The E-507.OE is not equipped with a DC-offset potentiometer.

E-507.36 is designed for systems or actuators requiring an operation voltage range of -250 V to +250 V, such as the P-363 PicoCube® (see page 2-72) or the P-111 – P-151 PicaShear™ actuators.

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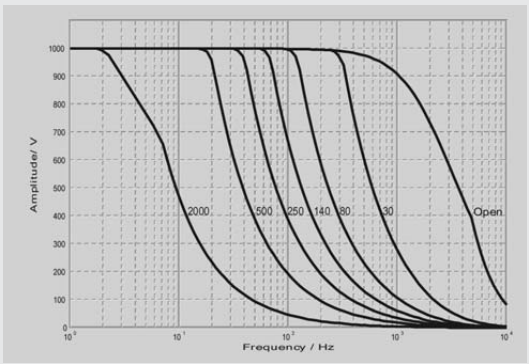
Ordering Information

E-507.00
HVPZT Amplifier Module, -3 to -1100 V

E-507.OE
HVPZT Amplifier Module, OEM, 400 mA Peak Current

E-507.36
HVPZT Amplifier Module, -250 to +250 V

Ask about custom designs!



E-507.00, frequency response with various PZT loads. Values shown are capacitance in nF measured in actual PZT.

Technical Data

Models	E-507.00	E-507.OE	E-507.36
Function	Power amplifier	Power amplifier	Power amplifier
Channels	1	1	1
Maximum output power	50 W (see page 6-52)	400 W (see page 6-52)	50 W (see page 6-52)
Average output power	13 W	13 W	13 W
Peak output current <5 ms	50 mA	400 mA	100 mA
Average output current >5 ms	12 mA	12 mA	24 mA
Current limitation	Short-circuit proof	Short-circuit proof	Short-circuit proof
Voltage gain	-100 ±1, +100 ±1 (selectable)	-100 ±1	-50 ±1
Polarity	Negative/positive/bipolar (jumper selectable)	Negative	Bipolar
Control input voltage	0 to +11 V, 0 to -11 V (jumper selectable)	0 to +11 V	-5 to +5 V
Output voltage	-3 to -1100 V (-780 to +260, -550 to +550, -260 to +780, +3 to +1100 V, jumper selectable)	-3 to -1100 V	-250 to -250 V
DC-offset setting	-3 to -1100 V at output with 10-turn pot.	-	500 V range at output with 10 turn pot.
Input impedance	100 kΩ	100 kΩ	100 kΩ
Control input sockets	BNC	DIN 41612, 32 pin, rear; SMB, front	BNC
PZT voltage output sockets	LEMO ERA.0A.250.CTL	LEMO ERA.0A.250.CTL	LEMO ERA.0A.250.CTL
Dimensions	One 14T slot wide, 3H high	One 14T slot wide, 3H high	One 14T slot wide, 3H high
Weight	0.75 kg	0.75 kg	0.75 kg
Operating voltage	Requires E-530/E-531 power supply (E-500/E-501 system)	Requires E-530/E-531 power supply (E-500/E-501 system)	Requires E-530/E-531 power supply (E-500/E-501 system)