

PZT Actuators
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E-660

LVPZT Amplifiers

Ordering Information

E-660.00
 LVPZT Amplifier
 E-660.OE
 LVPZT Amplifier Module, OEM Version
 Custom Designs
 for Volume Buyers

- **Single-Channel PZT Driver**
- **12 V Battery or P/S Operation**
- **Output Voltage Range 5 to 100 V**

The E-660.00 is a low-cost amplifier for low-voltage PZTs. It can output and sink a peak current of 20 mA and an average current of 10 mA. The E-660 is designed for static and low-level dynamic PZT applications. Because an operating current of only 150 mA @ 12 V is required, battery operation is possible.

E-660.OE is the OEM version of the E-660.00 amplifier. The OEM module does not provide manual controls. All inputs and outputs are via 8 header pins located on the bottom of the E-660.OE. The module is designed to be mounted on circuit boards. The electronics are fully enclosed in a metal case. The E-660.00 and E-660.OE can be operated in two ways:

I. Manual Operation: Output voltage can be set by a DC-offset potentiometer (not supplied with E-660.OE) in the range of 5 to 100 V.

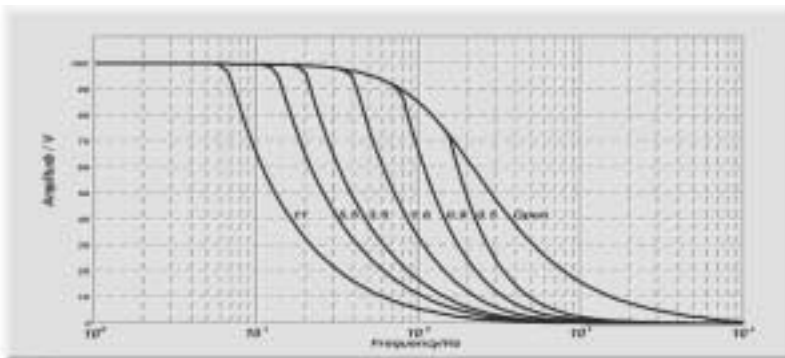
II. External operation: Output voltage is controlled by an analog signal in the range of 0 to 10 V, applied to the BNC input (E-660.00). Multiplying by the gain factor of 10, an output voltage range of +5 to +100 V results. The DC-offset potentiometer adds a DC bias to the input, allowing continuous shifting of the input voltage range between 0 V to +10 V and -10 V to 0 V (see page 6-40).



E-660.OE



E-660.00



E-660, frequency response with various PZT loads. Values shown are capacitance values are in μF , measured in actual PZT.

Technical Data

Models	E-660.00	E-660.OE
Function	Power amplifier	Power amplifier
Channels	1	1
Maximum output power	2 W (s. page 6-40)	2 W (s. page 6-40)
Average output power	1 W	1 W
Peak output current < 5 ms	20 mA	20 mA
Average output current > 5 ms	10 mA	10 mA
Current limitation	Short-circuit proof	Short-circuit proof
Voltage gain	10 \pm 0.1	10 \pm 0.1
Polarity	Positive	Positive
Control input voltage	0 to +10 V	0 to +10 V
Output voltage	5 to 100 V	5 to 100 V
DC offset setting	5 to 100 V with 1-turn pot	-
Input impedance	100 k Ω	100 k Ω
Control input socket	BNC	header pins
PZT voltage output socket	LEMO ERA.00.250.CTL	header pins
Dimensions	150 x 195 x 75 mm	93 x 45 x 28 mm
Weight	0.5 kg	0.25 kg
Operating voltage	12 to 15 VDC, stabilized	12 to 15 VDC, stabilized
Max. Operating current	150 mA	150 mA
Operating temperature range	0 to +50°C	0 to +50°C
Power supply	Not included (3.5 mm jack socket)	Not included