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Find the *Physik Instrumente E-503.00* at our website: *Click HERE*

E-503

LVPZT Piezo Amplifier Module, 3 Channels



- **3 x 14 W Peak Power**
- **Output Voltage Range -20 to +120 V**

The E-503.00 is a piezo driver module for low-voltage PZTs. It contains three independent amplifiers that can output and sink a peak current of 140 mA and an average current of 60 mA each. The E-503.00 can be operated in two ways:

I. Manual Control:

Each amplifier output voltage can be set in the range of 0 to 100 Volts by a 10-turn, DC-offset potentiometer.

II. External Control:

Output voltage is controlled by an analog signal applied to the BNC inputs, ranging from -2 to 12 V. Multiplying by the gain factor of 10, an output voltage range of -20 to 120 V results. The DC-offset potentiometer adds a DC bias to the input, allowing continuous shifting of the input range between -2 V to +12 V and -12 V to +2 V.

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 LVPZTs.

Ordering Information

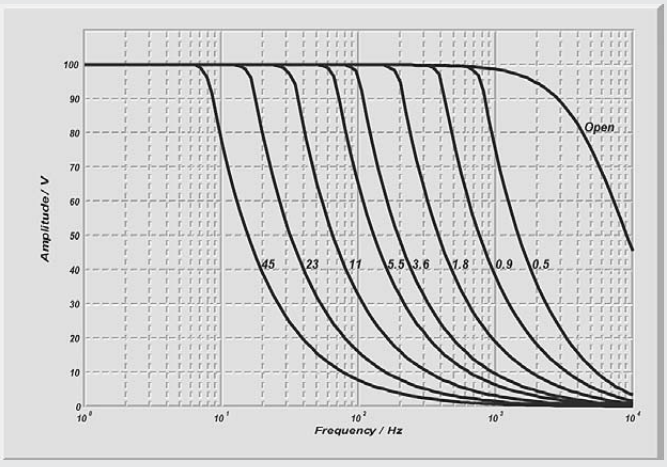
E-503.00
LVPZT Amplifier Module,
-20 to +120 V, 3 Channels

E-503.00S
Modified E-503.00 with one Fixed Voltage of +100 V, for S-340, S-330 and S-334 Systems

Ask about custom designs!

Notes

The E-503.00 amplifier is not a stand-alone device. It is designed to work in the E-500/E-501 chassis (p. 6-18) with integrated power supply. A 32-pin connector is used to interface with the E-500/E-501 chassis.



E-503, frequency response with various PZT loads.
Values shown are capacitance values are in µF, measured in actual PZT.

Technical Data

Models	E-503.00*
Function	Power amplifier
Channels	3
Maximum output power	14 W per channel (see page 6-52)
Average output power	6 W per channel
Peak output current <5 ms	140 mA per channel
Average output current >5 ms	60 mA per channel
Current limitation	Short-circuit proof
Voltage gain	10 ±0.1
Polarity	Positive
Control input voltage	-2 to +12 V
Output voltage	-20 to +120 V
DC-offset setting	0 to 100 V at output with 10-turn pot.
Input impedance	100 kΩ / 1 nF
Control input sockets	BNC
PZT voltage output socket	LEMO ERA.00.250.CTL
Dimensions	One 14T slot wide, 3H high
Weight	0.9 kg
Operating voltage	Requires E-530/E-531 power supply (E-500/E-501 system)

* E-503.00S with 2 amplifier channels and one fixed voltage of +100 V

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