

For current pricing, please see our website.

CHAPTERS

Manual Stages

Motorized Stages

Multi-Axis Platforms

Actuators

Controllers

SECTIONS

T-Cube Overview

Benchtop Overview

Rack System Overview

DC Servo

Stepper Motor

Piezo/Strain Gauge

Auto-Alignment

Solenoid

apt Control Software

Tutorials

Open-Loop Piezoelectric Controller: 1 and 3 Channels



MDT693A

Thorlabs' one-channel (MDT694A) and three-channel (MDT693A) Piezoelectric Controllers have been designed to take advantage of the very high resolution achievable with low-voltage piezo stacks (100 V). Both models combine precision control of the output voltage for maximum piezo resolution, along with a high-output current capability to allow external modulation of the piezo. Computer control is available on both models via an RS-232 interface. For the added protection of your sensitive, low-voltage piezo devices, a selectable output voltage range switch has been added with three selectable ranges: 0-75 V, 0-100 V, and 0-150 V. Additionally, the three-channel MDT693A offers master scan controls that allow internal or external control of all three channels simultaneously.

Piezo control can be achieved manually using the front panel adjustment knob, electrically using a 0-10 V signal input into a front panel BNC connection, or remotely using the RS-232 interface and Graphical User Interface (GUI) provided with the unit.



MDT694A

The output is provided through a convenient BNC connector located on the rear panel. A BNC (male) to SMC (female) adapter is included for each output to provide compatibility between our various stages and piezo actuators.

The MDT694A is a single-channel, high-voltage amplifier designed to take advantage of the high resolution achievable with our line of piezoelectric stacks. The MDT694A combines precision high-voltage output capability with high-output current capability.

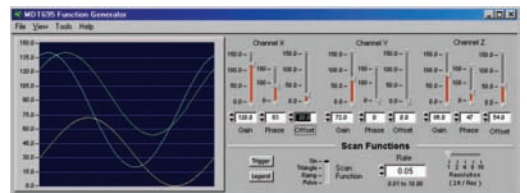
MDT693A and MDT694A Features

- Compatible with Our Full Line of Open-Loop Piezoelectric Actuators
- Precision, Low-Noise Outputs
- Internal/External Voltage Control
- Master Scan Controls
- RS-232 Interface
- 3 Channel Scan Balancing Compensates for Slightly Different Piezo Translation Factors ($\delta L/\delta V$)

MDT693A and MDT694A Specifications

- **Output Voltage:** 0 - 75 V, 0 - 100 V, 0 - 150 V Switchable Output Indicated on Front Panel
- **Output Current (Max):** 60 mA/Channel
- **Output Noise:** 1.5 mV_{RMS} (-9.9 mV_{P-P})
- **Output Stability:** <0.01% Over 5 hrs
- **Power Requirements:** <100 - 240 VAC, 50 - 60 Hz (Switch Selectable)

RS-232 Interface



LabWindows™ application programs are included for out of the box operation. MDT690 series uses an RS-232 Interface.

ITEM #	METRIC ITEM #	\$	£	€	RMB	DESCRIPTION
MDT693A	MDT693A*	\$ 1,580.00	£ 1,137.60	€ 1,374.60	¥ 12,592.60	3-Channel, Open-Loop Piezoelectric Controller
MDT694A	MDT694A*	\$ 712.00	£ 512.64	€ 619.44	¥ 5,674.64	1-Channel, Open-Loop Piezoelectric Controller

*Power requirements 100 - 120 VAC, user switchable to 220 - 240 VAC 50 - 60 Hz operation.