



Motion Control

Translation Stages

Motorized Mirror Mounts

Rotation Stages

3 Axis Flexure Stages & Accessories

4, 5 & 6-Axis Stages

Drive Electronics & Auto-Alignment

Actuators & Adjusters

Open Loop Piezo-Electric Controller: 1 & 3 Channels



MDT693A

MDT693A & MDT694A Features

- High Voltage Outputs (3 ranges up to 150V)
- Current Drive Capability (60mA)
- Precision, Low Noise Outputs
- Available in 1 Channel (MDT694A) & 3 Channel (MDT693A)
- Compatible with our Full Line of Open Loop Piezo-electric Actuators



MDT694A

MDT693A & MDT694A

Specifications

- **Output Voltage:** 0-75V, 0-100V 0- 150V (Switchable) Indicated on Front Panel
- **Output Current:** 60mA/Channel
- **Output Noise:** 1.5mV RMS
- **Output Stability:** 0.01% over 16 hrs.
- **Power Requirements:** 100-240V AC, 50-60Hz (Switch Selectable)

Features

- Internal/External Voltage Control
- Master Scan Controls
- RS232 Interface
- 3 Channel Scan Balancing Compensates for Slightly Different Piezo-Translation Factors ($\delta L/\delta V$)

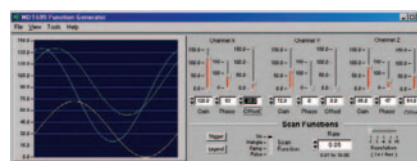
Internal & External control of all 3 channels simultaneously. Computer control is provided through an RS-232 Interface.

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

Thorlabs' MDT693A Piezo-Electric Controller has been designed to take advantage of the very high resolution achievable with the low voltage (100V compared to 1000V) piezo stacks. The MDT693A combines precision control of the output voltage for maximum piezo resolution, along with a high output current capability to allow external modulation of the piezo. New for the MDT693A is the addition of the Master Scan controls, allowing

RS232 INTERFACE

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



ITEM#	METRIC ITEM #	\$	£	€	¥	DESCRIPTION
MDT693A*	MDT693A*	\$ 1,499.00	£ 1,124.25	€ 1,573.95	¥ 254,830	3-Channel Controller
MDT694A*	MDT694A*	\$ 680.00	£ 510.00	€ 714.00	¥ 115,600	1-Channel Controller

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

Open Loop Piezo Control, XYZ Flexure System



MDT630A COMPLETE SYSTEM INCLUDES DRIVE ELECTRONICS.



The MDT630A is offered as a complete three axis flexured stage that features 4mm of manual travel as well as piezo-electric actuators that provide 20µm of high resolution displacement. Details on the flexure stage can be found on page 275.

XYZ Flexure Stage & Piezoelectric Controller

- Our parallel flexure design does not require any lubrication within the mechanism that provides the 3-axis movement, this provides a significant advantage over crossed roller bearings which require lubrication that traps particles causing the sensitivity to degrade.
- Flexure design offers virtually infinite resolution thus complementing the high sensitivity Piezoelectric Actuators.

Specifications

- **Total Travel Manual Drives:** 4mm (See Page 371 for Details)
- **Total Travel Piezo Drives:** 40µm
- **Piezo-Electric Driver:** 0-150V
- **Output Noise:** 1.5mV RMS
- **Output Stability:** <0.01% Over 16 Hours

ITEM#	METRIC ITEM #	\$	£	€	¥	DESCRIPTION
MDT630A*	MDT630A/M*	\$3,167.00	£ 2,375.25	€ 3,325.35	¥ 538,390	Complete Piezo-Electric Flexure Stage & Driver

*Power Requirements 100-120V AC 50-60Hz; user switchable to 220-240V AC 50-60Hz operation.