

MTG3 Digital Two Axis Tilt Table



TWO AXIS TILT TABLE

The DMA MTG3 is an automatic high resolution two axis tilt table designed to test attitude/heading and inertial platforms. All procedures are computer driven through a control box connected to the tilt table.

It consists of:

- Anticorodal round table, 500 mm diameter, for UUT (unit under test) fixing.
- Replaceable counterweights, to balance the different UUT weights
- Two motors (for the two axis) driven by a computerized control box
- Two position transducers (digital angle encoders with 0.001° resolution)
- Two digital angle encoders used for speed control
- Control box with LCD display, VGA output and keyboard input
- RS232 port with high level command set to control all the tilt table functions by an external computer
- +/- 900 degrees around vertical axis and +/- 90 degrees around horizontal axis
- speed regulation up to 20 deg/sec
- up to 26 programmable test profiles can be stored in the internal memory, each with 99 step

FEATURES

- **Vertical axis: +/- 900 degrees**
- **Horizontal axis: +/- 90 degrees**
- **Control accuracy: better than 0.01 degrees**
- **Rate resolution 0.1 degrees /sec**
- **Maximum rate 1200 degrees/min**
- **Counterweights axis balancing**
- **Standard VGA and LCD control unit**
- **Remote RS232 communication interface**
- **Fast zero position finder**
- **Independent position, speed and acceleration setting for each axis**
- **Limits angle setting to avoid instruments damage due to operator errors**
- **Universal power supply: 120 to 240 VAC**
- **Weight 100 Kg**

On power-up the program starts searching the home zero position and when it has been reached the main menu appears with the various options: 1 or 2 axis control, rate of turn test, etc.

The tilt table can be controlled by a standard keyboard and VGA display or by an external computer connected via RS232.

In both cases the internal LCD displays positions and speed.

DISPLAY



SPECIFICATIONS

Parameter	Range		Resolution	Accuracy	
	Measure	Control		Measure	Control
Vertical axis angle (Y)	+/- 360 °	+/- 360 °	0.001 °	0.001 °	0.01 °
Angular speed	0.1 ÷ 20 %/sec	0.1 ÷ 20 %/sec	0.1 %/sec	0.1 %/sec	0.1 %/sec
Horizontal axis angle (X)	+/- 90 °	+/- 90 °	0.001 °	0.001 °	0.01 °
Angular speed	0.1 ÷ 20 %/sec	0.1 ÷ 20 %/sec	0.1 %/sec	0.1 %/sec	0.1 %/sec

Note

Tables to custom specifications can be supplied on request

FEATURES

Load capacity: max 50 lbs
 Orthogonality: max 30 arc sec
 Stand levelling range by air bell with adjustable screws
 Axis balancing: counterweights
 Axis lock: fail safe microswitches
 Autozero
 Angular position control
 Speed control
 Acceleration control
 Continuous movement between two angular positions control
 Control features mixing
 RS232 serial communication

PHYSICAL SPECIFICATIONS

Dimensions: 43" x 49" x 20"
 Platform diameter : 500 mm (20")
 Weight: 220 lbs

PROGRAMMABILITY

Up to 26 test profiles each with 99 steps programmable in time, position and speed can be stored in internal memory
 High level RS232 commands set allows control of MTG3 by external PC

POWER SUPPLY

Universal: 90 to 220 Vac

Note: --- Specifications are subject to change without notice ---

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