

Two-Axis Motion Simulator Model AC2246



The Series AC2246 Two-Axis Test Tables are part of an economic series of rate tables. The model allows testing of several medium Inertial Measurement Units (IMU's) or Micro Electro Mechanical Systems (MEMS) sensors simultaneously.

The axes are driven by direct drive brushless motors. The brushless motors offer excellent torque and since they have no wear parts the reliability is excellent. AC drive amplifiers produce the required current to power the motors. The table features excellent instantaneous rate stability and precise, stable absolute positioning.

The elevation axis is equipped with a stow lock to facilitate the safe loading/unloading of the UUT.

Slipping capsules take the signals and or power from the table base to the device under test. ACUTRONIC offers three standard slipping packages for better economy.

The table is controlled by the ACUTROL®3000 digital controller. The controller has a touch sensitive display and a scalable analog input/output interface. Optionally, the standard digital interfaces of IEEE-488 and Ethernet (TCP/IP) can be supplemented with VMIC or SCRAMNet reflective memory interfaces. For more details, please refer to the ACUTROL®3000 datasheet.

Dimensions	Height, max	mm	1'150
	Height of outer axis	mm	750
	Width across outer axis	mm	1'410
	Base dimension	mm	1'250 x 750 (LxW)
	Table top diameter	mm	450 (60 x M6 helicoils)
	Table top offset	mm	-166
	Table top flatness	mm	0.05
Unit Under Test (UUT)	Payload weight	kg	20 (nominal)
	Clearance envelope	mm	300 x 250 (ØxH)

Mech. specifications	Inner Axis	Outer Axis
Orthogonality	+/-5 arc sec	
Wobble	<5 arc sec	<5 arc sec
Static and dynamic performances		
Angular freedom	continuous	continuous
Positioning accuracy	5 arc sec RSS	5 arc sec RSS
Rate range	+/-1'200 deg/sec	+/-600 deg/sec
Acceleration, no load with load	3'000 deg/sec ² inertia load dependent	200 deg/sec ² inertia load dependent

Slipring Configuration according to standard wiring schematics		
	Ways	Connectors
Wiring Typ 1A	70 lines rated 2A, 150VDC	2x 37pin D-Sub
Wiring Typ 2A	45 lines rated 2A, 150VDC +10 lines rated 5A, 150VAC	1x 50pin D-Sub 1x 15pin D-Sub
Wiring Typ 3A	45 lines rated 2A, 150VDC +4 lines rated 20A, 400VDC	1x 50pin D-Sub 1x 5pin D-Sub (5W5)

Options

- Standard (300 mm, 600 mm) or customized (up to max. 600 mm) table top (dynamic specification subject to change)
- RF (up to 18GHz) rotary joints for GPS signals
- Base template
- North alignment kit (requires base template option)

Installation requirements

- 3 x 400 VAC +/-8% with ground (PE; no neutral required), 50/60 Hz, 16 Amps fused.

Packing details (approximate)

- Box 1 (simulator): 210 x 120 x 130 cm (WxDxH), Grossweight: 740 kg, Netweight: 510 kg
- Box 2 (console): 85 x 100 x 235 cm (WxDxH), Grossweight: 440 kg, Netweight: 285 kg

Delivery time

- 6 months average