

ID-450-2

Small dual-axis electric turntable

This compact dual-axis electric turntable employs a U-T configuration with external pitch and internal yaw, and is primarily designed to enable dual-axis positional and velocity motion. It is used for mounting payloads and provides high-precision angular positioning and rotational testing.



Product Features

- High-precision dual-axis rotation, with an accuracy of $\pm 2.5''$
- High load capacity, with a rated load of no less than 50 kg
- The azimuth axis can rotate continuously through 360° without restriction
- Wide operating temperature range: -40°C to 60°C
- Features data and graphical display and storage functions
- Large, flat work surface: 450 mm in diameter, with a runout of 0.02 mm

Suitable scenarios

Suitable for use in industries such as inertial navigation, aerospace and defence electronics, for the calibration, testing and rate-position testing of sensors such as inertial measurement units (IMUs), gyroscopes and accelerometers.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular position accuracy	Pitch: $\pm 5''$, Azimuth: $\pm 5''$
	Angular position repeatability	Pitch: $\pm 2.5''$, Azimuth: $\pm 2.5''$
Dynamic Performance	Maximum angular velocity	Inner frame: $\pm 20^\circ/\text{s}$, Outer frame: $\pm 15^\circ/\text{s}$
	Maximum angular acceleration	Inner frame: $> 50^\circ/\text{s}^2$, outer frame: $> 30^\circ/\text{s}^2$
Range of Motion	Azimuth/elevation range	Azimuth: 360° continuous rotation
Mechanical Specifications	Load capacity	Elevation: $\pm 11^\circ$ $\Phi 450 \text{ mm}$
	Table diameter/dimensions	$\geq 50 \text{ kg}$
Environmental Protection	Operating temperature	-40°C to $+60^\circ\text{C}$
Power and Communications	Power supply requirements	$220\text{V} \pm 10\%$, $50\text{Hz} \pm 10\%$
	Control interface	Ethernet/serial port