

ID-400-2

Small dual-axis electric turntable

This compact dual-axis electric rotary stage consists primarily of a measurement and control cabinet and a dual-axis stage body. It is designed to enable precise positioning and controlled-speed movement of the stage's dual axes (inner frame/outer frame) via a local touchscreen or remote computer, and is used for the testing and simulation of inertial navigation system components.



Product Features

- Dual local and remote control
- Overspeed and overcurrent protection
- Emergency power-off anti-jitter function
- High precision: $\pm 3''$ in rotation
- Wide speed range: from $0.001^\circ/\text{s}$
- Table diameter: $\varnothing 400\text{mm}$

Suitable scenarios

Designed for the inertial navigation testing and simulation industry, it is used for the testing, calibration and hardware-in-the-loop simulation of inertial components such as fibre-optic gyroscopes and MEMS.

Technical Specifications

Parameter categories	Parameter items	$\pm 3''$
Accuracy Performance	Angular position accuracy	Parameter values
	Rate stability	When $\omega \leq 1^\circ/\text{s}$: 2×10^{-3} When $1-10^\circ/\text{s}$: 2×10^{-4} When $\geq 10^\circ/\text{s}$: 2×10^{-5}
Dynamic Performance	Maximum angular velocity	Inner frame: $\pm 200^\circ/\text{s}$ Outer frame: $\pm 100^\circ/\text{s}$
	Maximum angular acceleration	Inner frame: $> 100^\circ/\text{s}^2$ Outer frame: $> 50^\circ/\text{s}^2$
Mechanical Specifications	Load capacity	20 kg
	Table diameter/dimensions	$\Phi 400$ mm
Power and Communications	Control interface	Network interface / Serial port