

ID-360-1

Single-axis rate-position turntable

The single-axis speed-position turntable comprises a turntable surface, a turntable body and a control system, and is capable of high-precision angular positioning and continuous-speed rotation.



Product Features

- Table diameter: $\Phi 360$ mm
- Maximum load: 20 kg
- Angular position accuracy: $\leq \pm 3''$
- Rate range: ± 0.001 to $\pm 7200^\circ/\text{s}$
- Maximum rotational speed: $\geq 7200^\circ/\text{s}$
- Supported oscillation frequency: 0.01 to 10 Hz

Suitable scenarios

Suitable for the inertial navigation and aerospace testing industries, it is used for high-precision rate and position calibration of various inertial measurement units, gyroscopes and accelerometers.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular positioning accuracy	" $\leq \pm 3$ "
	Angular positioning repeatability	" $\leq \pm 2$ "
	Speed smoothness	$< \omega \ 1^\circ/\text{s}$: $2\text{e-}003$ (averaged over 1°) $< \omega \ 10^\circ/\text{s}$: $2\text{e-}004$ (averaged over 10°) $< \omega$: $2\text{e-}005$ (averaged over 360°)
Dynamic Performance	Maximum angular velocity	$\geq 7200^\circ/\text{s}$ $200^\circ/\text{s}^2$
	Maximum angular acceleration	Azimuth: 360° continuous rotation
	Range of motion	Tilt: 0° to $\pm 45^\circ$
Mechanical Specifications	Load capacity	20 kg
	Table diameter/dimensions	$\Phi 360$ mm