

ID-200-1P

Single-axis turntable

This rotary stage comprises a vertical base, a high-precision angular position encoder and a 30-ring slip ring, and is used for continuous, infinite-angle positioning and rate testing of loads along a single axis.



Product Features

- Single-axis vertical design, saving space
- Continuous, infinite rotation with no angle restrictions
- Angular position accuracy of up to ± 12 arcseconds
- Wide angular velocity range: $0.001\text{--}720^\circ/\text{s}$
- Maximum angular acceleration of up to $5000^\circ/\text{s}^2$
- Comes as standard with a 30-ring slip ring, supporting multi-signal transmission

Suitable scenarios

Suitable for use in the aerospace and defence sectors, for the precision testing and calibration of devices such as inertial navigation systems, gyroscopes and accelerometers.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular position accuracy	$\pm 12''$
	Angular position repeatability	$\pm 10''$
	Speed smoothness	When $\omega \leq 1^\circ/\text{s}$: 5×10^{-2} (averaged over 1°) When $1 < \omega \leq 10^\circ/\text{s}$: 2×10^{-3} (averaged over 10°) When $10 < \omega \leq 720^\circ/\text{s}$: 1×10^{-3} (averaged over 360°)
Dynamic Performance	Maximum angular velocity	$720^\circ/\text{s}$
	Maximum angular acceleration	$5000^\circ/\text{s}^2$
Accuracy Performance	Range of azimuth/pitch movement	Continuous, unlimited (azimuth axis)
Mechanical Specifications	Load capacity	$\geq 15 \text{ kg}$
	Table diameter/dimensions	200 mm
Environmental Protection	Protection rating	Ip20
	Operating temperature	$20^\circ\text{C} \pm 5^\circ\text{C}$
Power and Communications	Power supply requirements	$220\text{V} \pm 10\%$ / 50Hz
	Control interface	Fibre optic / Ethernet / Rs422