2002P/2002PG SERIES PRECISION TWO AXIS POSITIONING AND RATE TABLE SYSTEM

STANDARD FEATURES

- Position Accuracy: ± 1 arcsec
- Position Repeatability: ± 1 arcsec
- Rate Accuracy: 0.0001%
- Direct-drive, DC brushless servo system
- High-precision, pre-loaded ball bearings
- Precision-ground anodized aluminum tabletop
- Fail-safe brakes
- Electronics Console for AERO 4000 Controller and Servo Amplifiers

AERO 4000 CONTROLLER FEATURES

- .NET interface over Ethernet
- Front panel display of status and data
- Local and remote operation
- Trapezoidal velocity profiles with programmable velocity and acceleration
- Sinusoidal motion profiles with variable amplitude and frequency
- Profile Modes for simulating complex motion

DESCRIPTION

The 2002P/2002PG Series Two-Axis Precision Positioning and Rate Table Systems provide precise angular position, rate and acceleration for the development, production and/or qualification testing of inertial sensors (MEMS, FOG, RLG, HRG, quartz, spinning mass, etc.) or inertial packages such as Inertial Measurement Units (IMU), Inertial Navigation Systems (INS), and Attitude Heading Reference Systems (AHRS) or seeker/tracker/stabilization devices for applications in the Aviation, Aerospace, Defense, Space, and Marine industries.

These tables are servo controlled and feature direct-drive DC brushless motors, precision optical encoders and a microprocessor based controller that provides accurate and reliable motion control. The table can be operated from the front panel keypad or keyboard for local control or through a computer interface for remote control. This test table system is designed for ease of operation, yet allows for the performance of complex motion profiles.

The Models 2002P or 2002PG may be configured for limited rotation or with slip rings for unlimited axis rotation based on specific customer requirements. For limited rotation applications, these tables have wire wrap allowance that provides a cost effective alternative to slip rings. Wire wrap test tables are designed for high reliability, minimal electrical noise, and low maintenance.

EASE OF INTEGRATION

- LabVIEW™ Virtual Instrument (.vi) driver included
- GPIB and 100base-T Ethernet interfaces standard
- Available control languages: ATL (Aerosmith Table Language) and MPACS (Legacy Carco and Contraves Controllers

OPTIONS

- High-quality, low-noise slip rings for continuous rotation applications available in various package sizes
- Integral Thermal chambers with electric heating and LN_2, CO_2 or mechanical cooling. Testing range: -65 to +85 deg C
- Custom tabletop diameters
- Increased maximum rates for either axis
- High Frequency RF Rotary Joint
- Fiber Optic Rotary Joint
- 2nd Tabletop External to Thermal Chamber for Data Acquisition System
- High Speed Reflective Memory interface
- *For special requirements, please contact Ideal Aerosmith regarding system customization*

For much more detailed information, contact Ideal to request a 2002P Series Specification Document or AERO 4000 Controller Data Sheet

Rev H