

## HS-100 Motorized Rotary Stage

The HS-100 motorized rotary stage has a large clear aperture and offers high-speed operation. A stepper motor with a timing belt generates fast, repeatable motion. A micro-stepping driver and gear reduction enables precise rotary positioning. The stage is supplied with a high-torque 200 step (1.8° per step) motor. The stage can be run open loop or an encoder (pictured) can be added for closed loop positioning. Dual angular contact bearings support both radial and thrust loads so the stage can be operated horizontally or vertically. This stage is ideal for positioning and rotating 100mm/4" optics. Applications include simulating atmospheric propagation using Lexitek's Turbulence Phase Plates.

### **SPECIFICATIONS**

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- 6"x10"x 2" footprint except at the motor which adds 1.75" thickness, encoder adds 0.7" thickness
- Optic holder with 4" bore, 3.75" clear aperture
- Dual precision bearings with angular contact races
- Stepper motor 2 A/phase, 83 oz-in torque
- Timing belt drive with no backlash or lubrication, 3:1 gear ratio
- 1-8X microstepping drive for smooth motion, 12-24V
- Variable speed and direction using logic (TTL) inputs for step and direction
- Rotation rates to 300 rpm guaranteed, >400 rpm typical
- Integrated reflective optical home sensor
- Optional encoder with 32-2500 cycles per revolution

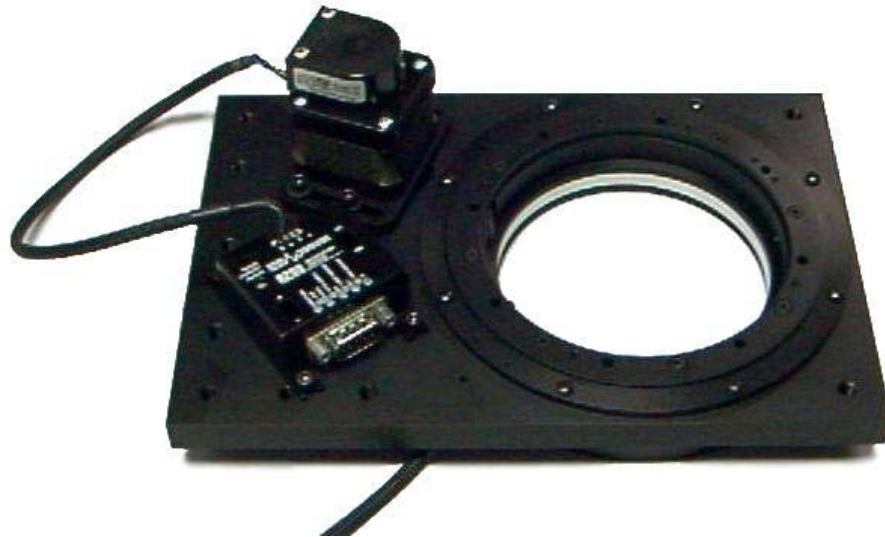
Please consult us if your requirements call for different specifications or if you need custom engineering of this product or related products.

### **LEXITEK Inc.**

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## LS-100/LS-100-SU Motorized Rotary Stage

The LS-100 motorized rotary stage has a large clear aperture and compact profile. A stepper motor with a geared drive belt generates fast, repeatable motion. A micro-stepping driver and gear reduction enables precise rotary positioning. The stage is available with a 400 step (0.9° per step) pancake motor (not shown) or a higher-torque/speed-upgraded 200 step motor (LS-100-SU, pictured). The stage can be run open loop or an encoder (pictured) can be added for closed loop positioning. A rugged bearing with 4-point contact supports both radial and thrust loads so the stage can be operated horizontally or vertically. This inexpensive stage is ideal for positioning and rotating 100mm/4" optics. Applications include positioning polarization filters and rotating Lexitek's Turbulence Phase Plates.

### **SPECIFICATIONS**

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- 6"x9"x1.5" footprint, with motor driver 1.8" thick, with encoder 2.0" thick (speed upgrade adds 1")
- Optic holder with 4" bore, 3.75" clear aperture
- Precision, slim ball bearing with X-contact races
- Compact stepper motor 1.5 arc-min step error, 0.25 A/phase, 4 oz-in torque
- Speed upgrade motor 1 A/phase, 30 oz-in torque
- Flexible gear belt drive with no backlash or lubrication, 6:1 gear ratio
- 1-8X microstepping drive for smooth motion, 12-24V
- Variable speed and direction using logic (TTL) inputs for step and direction
- Rotation rates to 10 rpm guaranteed, >40 rpm typical, 100 rpm guaranteed, >200 rpm typical with speed upgrade motor
- Integrated reflective optical home sensor
- Optional encoder with 32-2500 cycles per revolution

Please consult us if your requirements call for different specifications or if you need custom engineering of this product or related products.

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## LS-50 Motorized Rotary Stage

The inexpensive LS-50 motorized rotary stage accommodates 2" and 50 mm optics. A stepper motor with a geared drive belt generates fast, repeatable motion. A micro-stepping driver and gear reduction enables precise rotary positioning. The stage is available with a 400 step (0.9° per step) motor with or without an encoder for closed loop positioning. A rugged bearing with 4-point contact supports both radial and thrust loads so the stage can be operated horizontally or vertically.

### **SPECIFICATIONS**

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- 4"x6"x0.875" footprint plus motor/encoder (thickness); available as shown above or with an encoder
- Optic holder with 2" bore, 1.875" clear aperture
- Precision, slim ball bearing with X-contact races
- Compact 400 step motor, 0.03 degree resolution and >100 rpm guaranteed
- Flexible belt drive with no backlash
- 1-8X microstepping driver, 12-24V power plus step and direction TTL pulses minimum requirement
- Variable speed and direction using logic (TTL) inputs for step and direction
- Rotation rates >100 rpm guaranteed
- Integrated reflective optical home sensor
- Optional encoder with 32-2500 cycles per revolution

Related products: Stepper Motor Controller, Turbulence Phase Plates

Please consult us if your requirements call for different specifications or if you need custom engineering or integration of this product or related products.

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