



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

- 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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