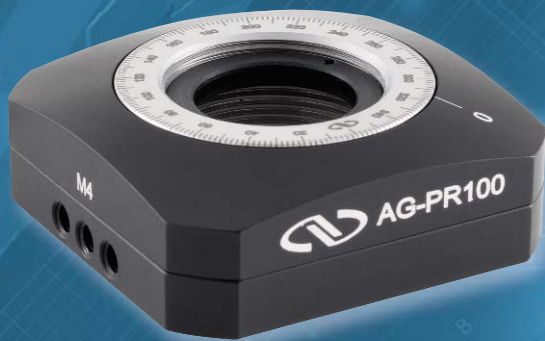


Agilis™ Series Piezo Motor Driven Rotation Stage

**Preliminary
Information**



Key Features

- Convenient hands-off remote adjustment for 1" diameter polarizers and waveplates
- Continuous 360° rotation with 5 μ rad (1 arcsec) adjustment sensitivity
- Ultra-compact — ideal for space constrained setups and system integration
- Set-and-forget long-term stability

The AG-PR100 is a high precision miniature rotation stage featuring Newport's new, Agilis piezo step direct motor. The AG-PR100 provides the benefits of a motorized component, ultra-high adjustment sensitivity and convenient remote operation, at a price and size comparable to that of a high quality manual stage.

The AG-PR100 features 360° continuous rotation for 1" diameter waveplates and polarizers in an ultra-compact and light weight package. The inside diameter of the AG-PR100 comes with a 1.063-20 thread and is compatible with the 10GT and 10GL Series Calcite polarizers, the CH-0.5 cube beamsplitter holder, and the RSA-1TI thread insert. An A-1.25-1RR retainer ring is included with every stage.

The Agilis piezo motor is directly coupled to the moving carriage with no intermediate screw or gear. Precision motion is achieved by a proprietary ball bearing that ensures better than 100 μ rad wobble. When idle, the holding force of the motor locks the position for true set and forget long term stability. Compared to alternative screw driven designs, the AG-PR100 does not compromise adjustment range or life time and has no backlash. In contrast to ultrasonic motors, the Agilis non-resonant motor makes small incremental adjustments more predictable with an impressive 5 μ rad incremental motion capability, ideal for ultra-sensitive alignments.

The Agilis AG-UC2 controller provides convenient push-button remote control and USB computer control for two AG-PR100 stages. For each axis, two rows of push buttons are available for step size settings, precise low speed adjustments and fast coarse motion. Power is supplied through the USB port, either directly from the computer or from the USB-CH power supply.

A software utility allows mimicking remotely the operation of the controller buttons through the computer and selecting and operating a specific Agilis device, as needed. A set of ASCII-commands and LabView VI's for all functions are provided as well.

For OEM solutions of control electronics, please call Newport.

Together with our Agilis Series mirror mounts and the Agilis AG-LS25 linear stage we are proud to offer you a growing family of piezo motor remote controllable components to make your work easier and ensure your success.



Specifications

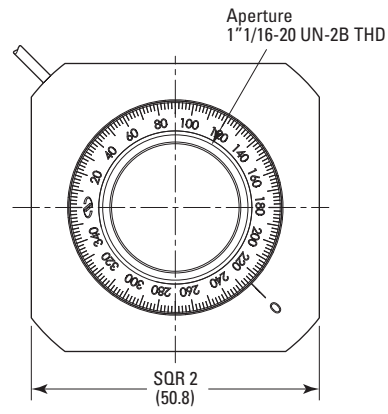
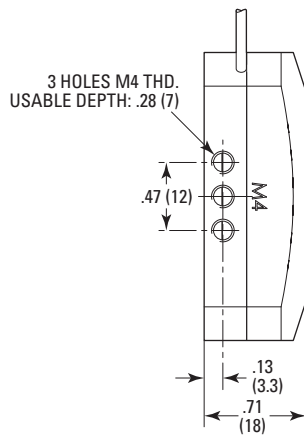
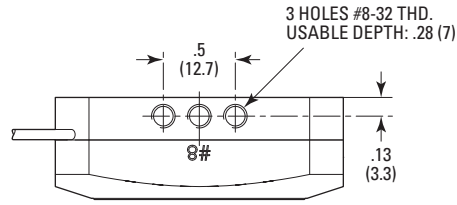
Travel Range	360° continuous
Minimum Incremental Motion ⁽¹⁾	5 μ rad (1 arcsec)
Maximum Speed	2 °/s
Wobble	100 μ rad
Weight	135 g
Graduation	2°
Cable	1.2 m length, 4-wire mini-Din connector. Can extend cable length using AG-MD4-1.5 extension cable.

1) The step size for forward and backward direction is adjustable. With default settings, the step size for the forward direction varies from the step size for the backward direction and may be larger than 5 μ rad. Individual steps are not 100% repeatable.



AG-PR100 Rotation stage for 1" diameter optics.

Dimensions



**Preliminary
Information**



Ordering Information

Model	Description
AG-PR100	Agilis Rotation Stage
RSA-1TI	Solid Insert
AG-UC2	Agilis Controller, 2-axis, USB interface
PRA-05	Adapter for 0.5" diameter waveplates
AG-MD4-1.5	1.5 m extension cable
USB-CH	USB power supply for AG-UC2



AG-LS25 Agilis Linear stage.



AG-UC2 2-axis controller for all Agilis devices.



Agilis mirror mounts for 1" and 0.5" diameter optics.



ISO 9001
FM 27207

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Newport Corporation, Irvine, California, has been certified compliant with ISO 9001 by the British Standards Institution.

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