

# Conex-AG-PR100P

## Piezo Motor Rotation Stage with Integrated Closed-Loop Controller



The CONEX-AG-PR100P is a piezo motor rotary stage integrated with a closed-loop piezo motor controller/driver. Originally targeted for repeatable positioning of polarizing optics, it can also be used as a miniature rotation stage for precision positioning of other optics or lightweight samples. For out-of-the box control, the CONEX-AGP controller is preconfigured and delivered with an Agilis AG-PR100P rotary stage with a built-in direct read encoder. The CONEX-AGP is a very compact and inexpensive single axis motion controller with the same driver as the proven Agilis piezo motor driver. The controller comes with the familiar CONEX GUI, simple and intuitive to use and conveniently accessible via USB, which also supplies power to the controller.

The CONEX-AGP closed-loop algorithm is a simplified version of the typical DC servo loop algorithm, and combined with the rotary encoder, provides a system uni-directional repeatability of 0.002°. For in-position stability, the user can adjust the deadband parameter that stops dithering when the stage is within a set position tolerance. The CONEX-AG-PR100P is based on the Agilis AG-PR100 rotary stage, but features an innovative miniature direct read encoder. The footprint is maintained while delivering 0.003° bi-directional repeatability, a benefit from direct read encoder technology. The rotary stage is very compact, but is capable of 340° travel, and 0.001° MIM. For safety, hard stops are included.

### Product Features

- High repeatability
- High sensitivity (MIM)
- Compact size
- Integrated with controller
- Easy to setup

### Specifications

Travel Range (°)	340
Load Capacity (N)	2
Maximum Speed (°/s)	1.5
Maximum Torque (Nm)	0.02
Minimum Incremental Motion (mdeg)	1
Uni-directional Repeatability, Typical (mdeg)	2
Bi-directional Repeatability, Typical (mdeg)	3
Transversal Stiffness (µrad/Nm)	200
Wobble, Typical (µrad)	100
Weight (g)	135
Operating Temperature (°C)	+10 to +35
Cable Length (m)	1
Computer Interfaces	USB

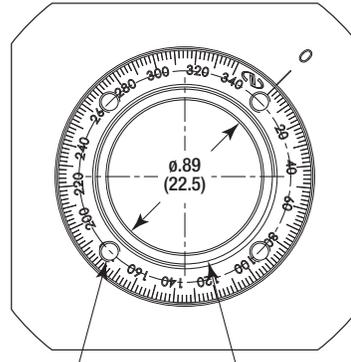


### Ordering Information

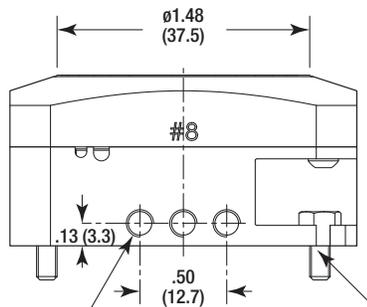
Conex-AG-PR100P	Piezo Motor Rotation Stage, 1 in., Direct Encoder, Includes Controller
Conex-BP	Base Plate, Mounts Multiple CONEX™ Controllers
AG-PR100-TP	Top Plate, CONEX-AG-PR100
USB-CH	USB Power Supply, Includes clips for US, EU, UK & Australia, 2m Cable

## Dimensional Drawing

**MODEL SHOWN: AG-PR100P**  
DIMENSIONS IN INCHES (AND MILLIMETERS)

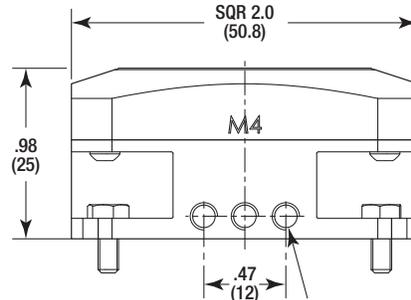


4 HOLES M3 THD ON  $\phi 1.22$  (31)  
DEPTH: .14 (3.5)      1"1/16-20 UN-2B THD  
DEPTH: .77 (19.5)



3 HOLES #8-32 THD  
DEPTH: .18 (4.5)

MOUNTING BY  
3 CHC M3 SCREWS  
ON SQR 1.57 (40)



3 HOLES M4 THD  
DEPTH: .18 (4.5)

