

# HR-3 SERIES ROTARY STAGE



## HR-3 Design

The HR-3 high speed rotary table is the ideal product for spinning light weight components at fast speeds. Possible applications include accelerometer and gyro calibration.

This low-cost HR-3 product line is designed for a variety of applications in research & development, automation, and other industrial areas requiring fast rotation of light payloads.

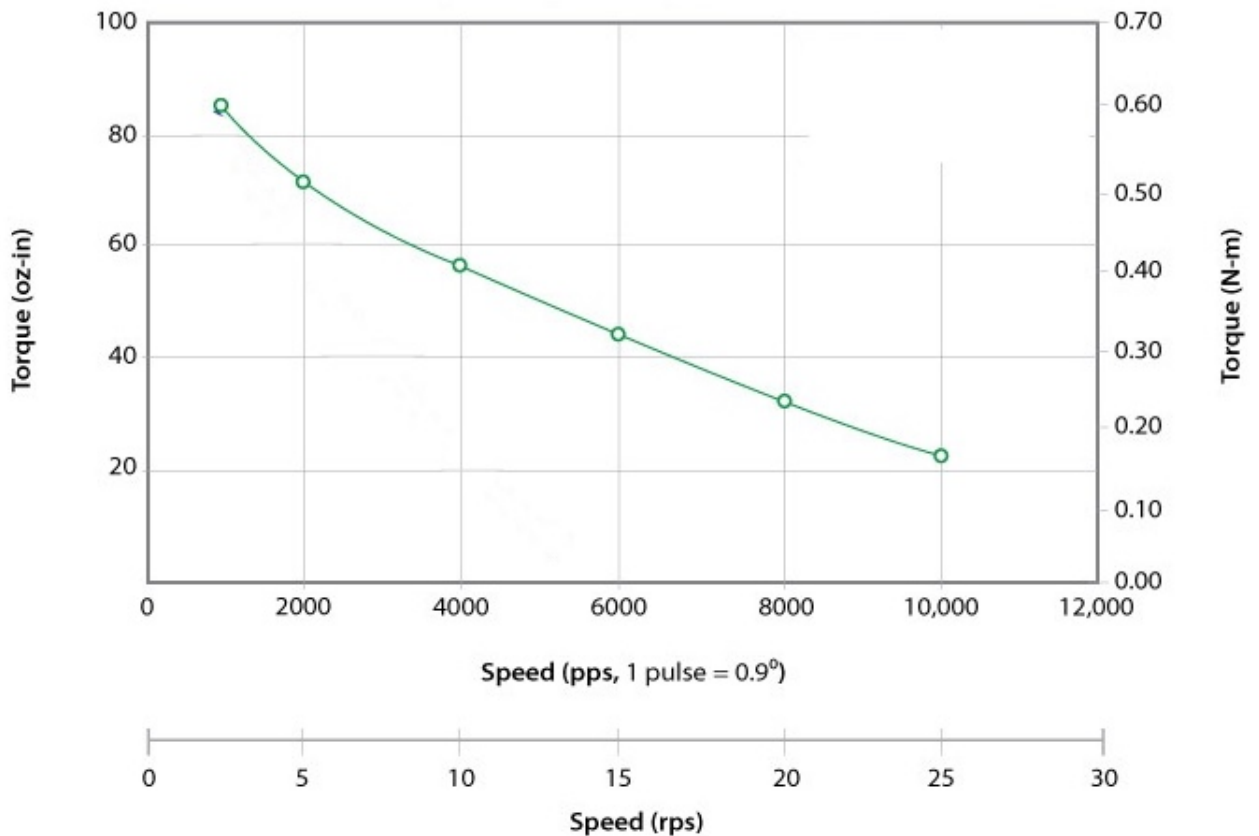
The HR-3 uses a high torque direct drive stepper motor. This design eliminates the use of worm gears which gives the HR-3 fast speeds, high reliability, and maintenance free operation.

The HR-3 is machined from 6061 aluminum alloy and black anodized.

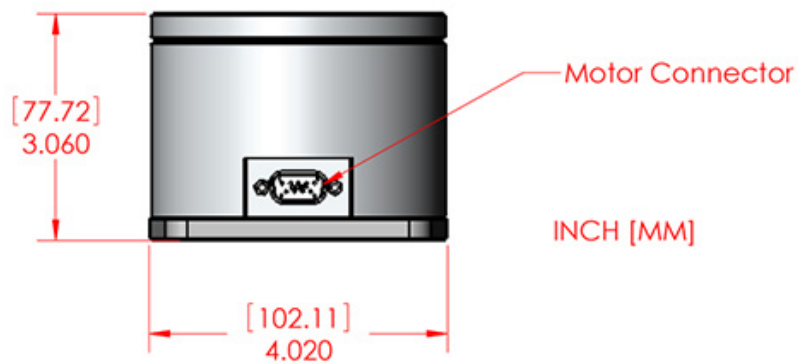
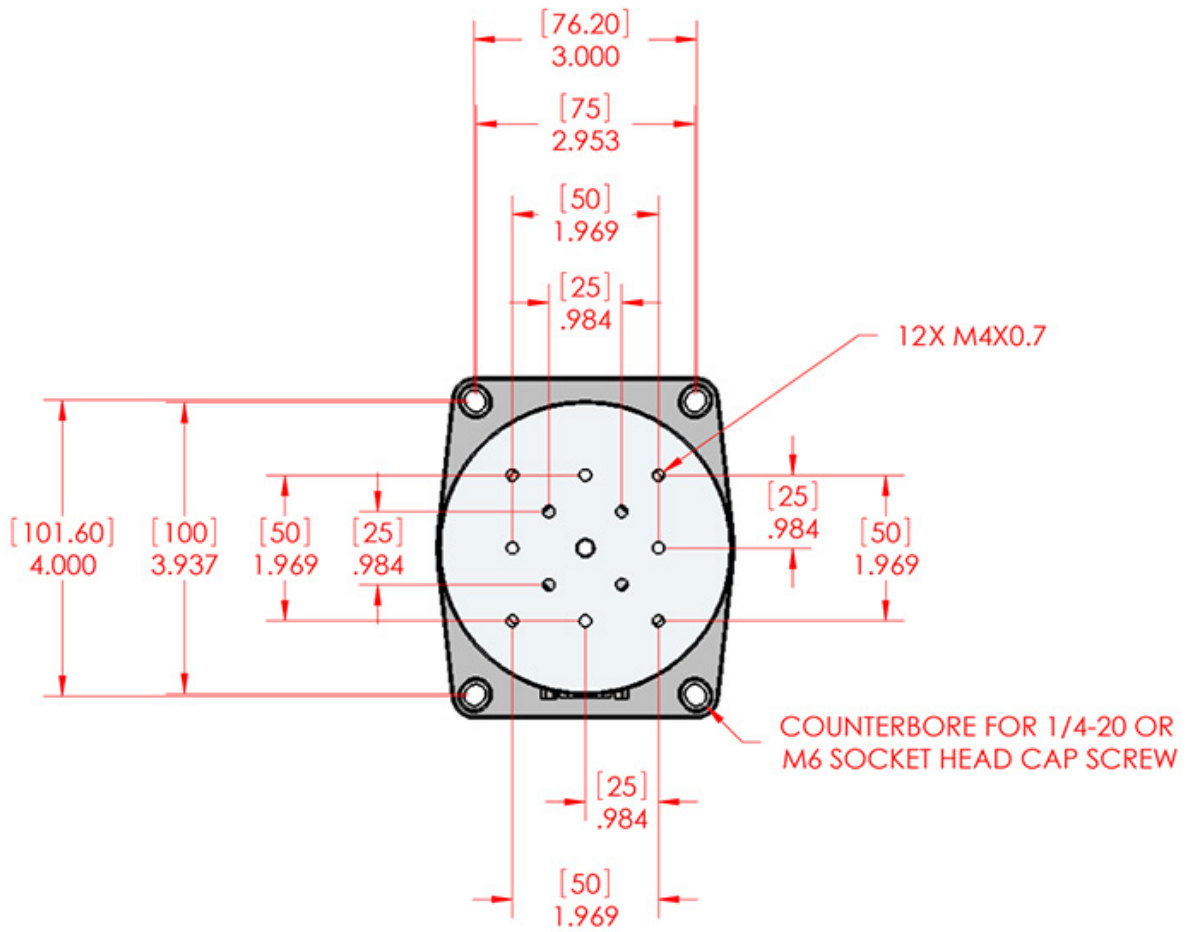
## Specifications

Resolution	0.014°
Max. Speed	12000°/sec (2000 RPM)
Max Payload Weight	2.3 kg (5 lb)
Travel Range	360° Continuous
Encoder	Optical Rotary Encoder, 4000/rev
Limit Switches	None
Origin	None
Stage Weight	1.38 kg (3.04 lb)
Material	Aluminum Alloy Construction
Finish	Black Anodize

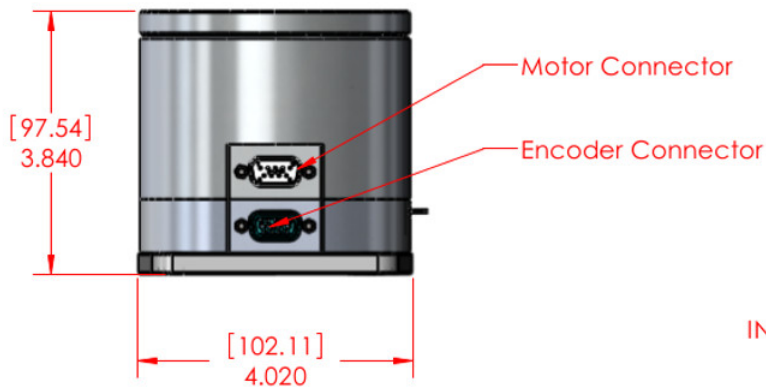
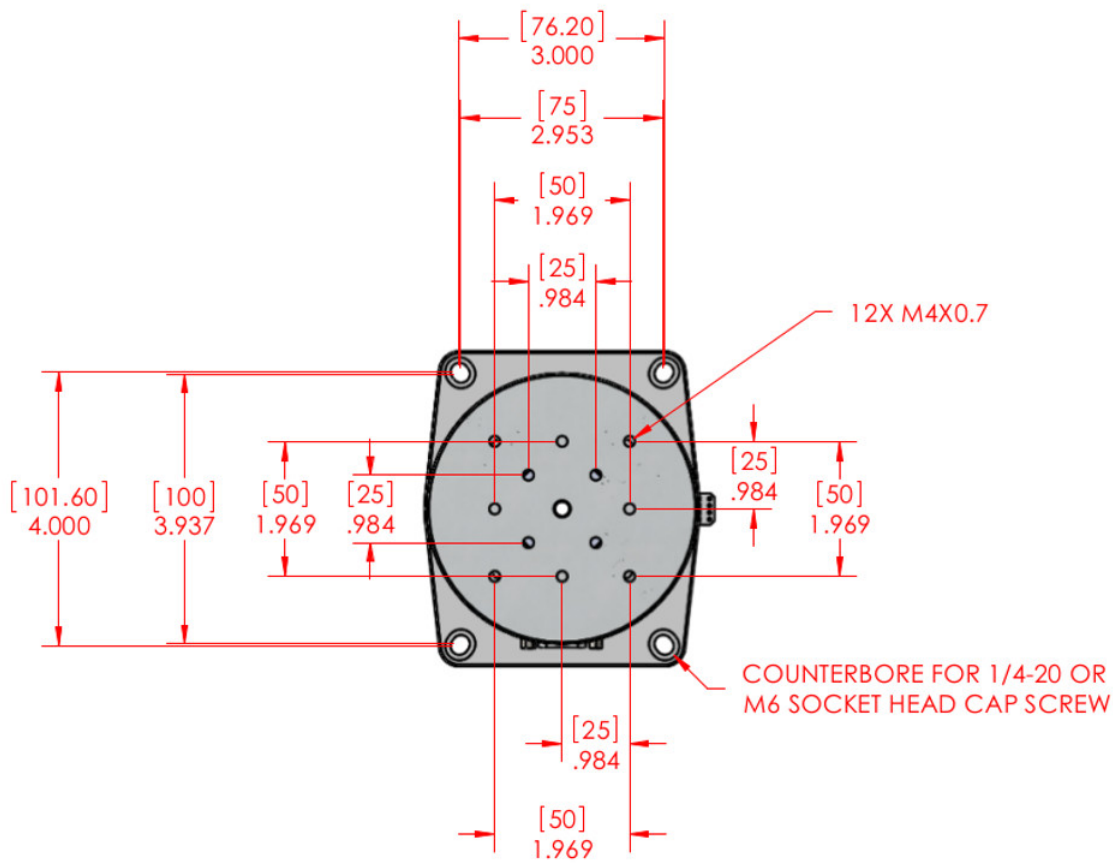
### Motor Torque Curve



## Dimensions



# Dimensions



INCH [MM]

# Pin Assignment

## Standard Stepper Motor Version

### Motor

DB-9 Male	Description
1.	Phase A
2.	Phase A'
3.	Phase B
4.	Phase B'

### Motor Specifications

Step Size: 1.8°/step

Amps/Phase: 2.8A

Resistance: 0.7 Ohm/Phase

Inductance: 1.4 mH/Phase

### Signals (Encoder Option)

HD-15 Female	Description
1.	N.C.
2.	N.C.
3.	N.C.
4.	Encoder Ground
5.	+5V Encoder Power
6.	Ch. A
7.	Ch. A-
8.	Ch. B
9.	Ch. B-
10.	Index +
11.	Index -

## Ordering Information

### Part Numbers Configuration

HR-3-E



Encoder Option

Encoder Options

Optical Rotary Encoder, 4000 counts/rev

### Motion Controllers

The following Newmark Systems, Inc. controllers are compatible with the RT-2 Stage.

[NCS-A1 Series](#) | [NSC-G Series](#)