

RT-5DR SERIES ROTARY STAGE



RT-5DR Design

The RT-5DR has a low profile coming in at just 54 mm thick. The design takes advantage of a thrust bearing systems for the table movement. This design approach offers excellent stability and low cost.

The RT-5DR rotary stage is designed work with our Digital Read Out (DRO) units. The RT-5DR utilizes a 2000 count per revolution rotary encoder to display position information the a DRO unit.

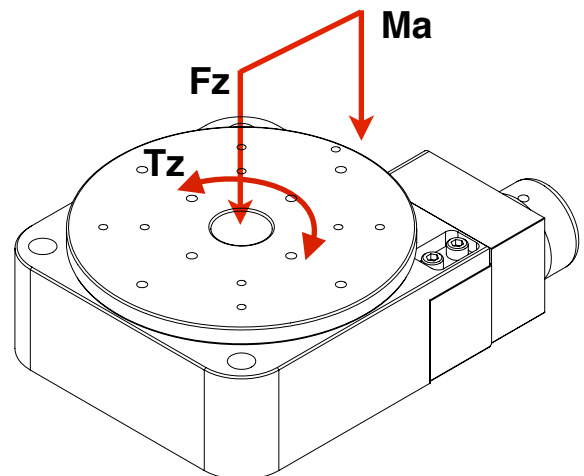
A worm gear drive with a gear ratio of 72:1 provides precise positioning with self-locking capability. The worm gear is preload to minimize the backlash in the gear train.

Specifications

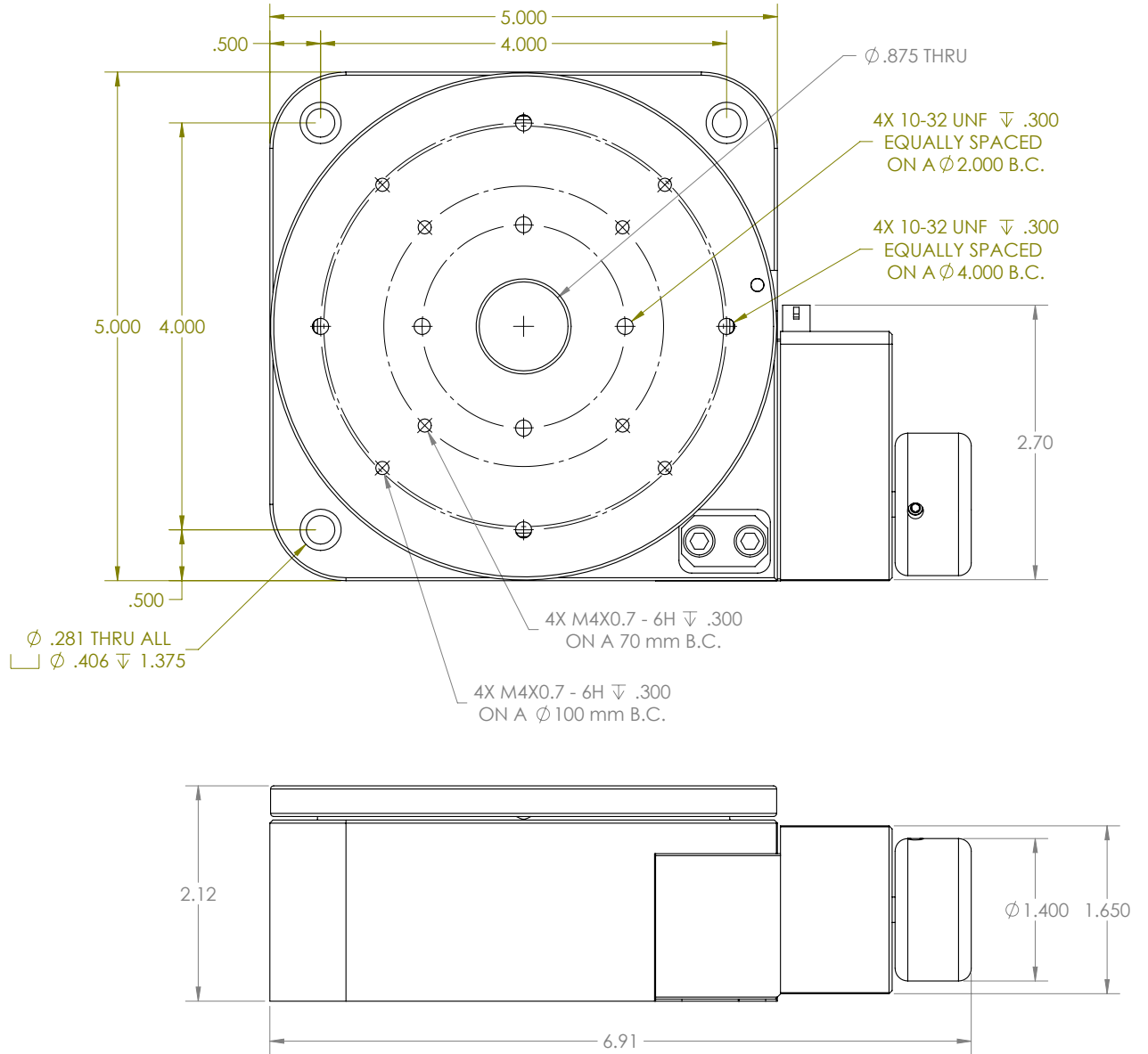
Resolution	0.0025°
Accuracy	72 arc-sec
Unidirectional Repeatability	5 arc-sec
Axial Runout	0.038 mm TIR (0.0015")
Radial Runout	0.025 mm TIR (0.0015")
Max Payload Weight	25 kg (55 lbs)
Travel Range	360° Continuous
Encoder	2000 CPR optical rotary encoder mounted to input shaft
Gear Ratio	72:1
Stage Weight	6 lbs
Material	Aluminum Alloy Construction
Finish	Black Anodize

Load Characteristics

Normal Load (Fz)	25 kg (55 lbs)
Moment Load (Ma)	10.8 Nm (8 lb-ft)
Max. Torque (Tz)	5.1 Nm (3.75 lb-ft)



Dimensions



UNITS: INCHES

Pin Assignment

Molex Connector on Stage

43020401	Description
1.	Ground
2.	+5V
3.	Ch. A
4.	Ch. B

Encoder Cable

DB-9 Male	Molex 430250400	Description
1	1	Ground
2	2	+5V
3	3	Ch. A
4	N.C.	
5	4	Ch. B