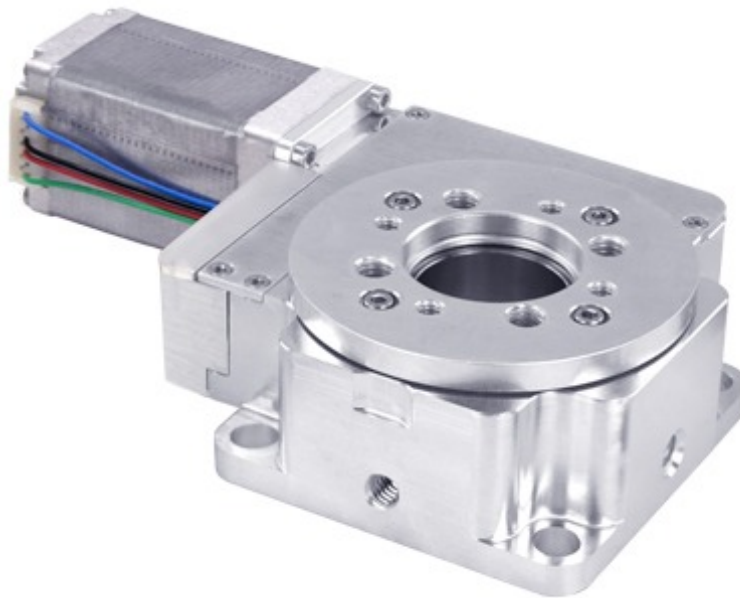


RSW-V2 Series Datasheet



- Vacuum compatible to 10⁻⁶ Torr
- Worm gear driven for continuous rotation
- 20 kg load capacity
- Speed up to 100 °/s and torque up to 100 N-cm
- Only 7 feedthrough wires required to control these units
- Designed for use with a X-MCB1 Series stepper motor controller or any 2-phase stepper motor controller

Overview

For more information about the basics of a vacuum system and considerations to keep in mind when gathering requirements for your application, read our technical article, "Motion Device Design Considerations for Vacuum Applications".

Zaber's RSW-V2 Series devices are high-vacuum compatible, computer-controlled, motorized rotary stages with built-in controllers.

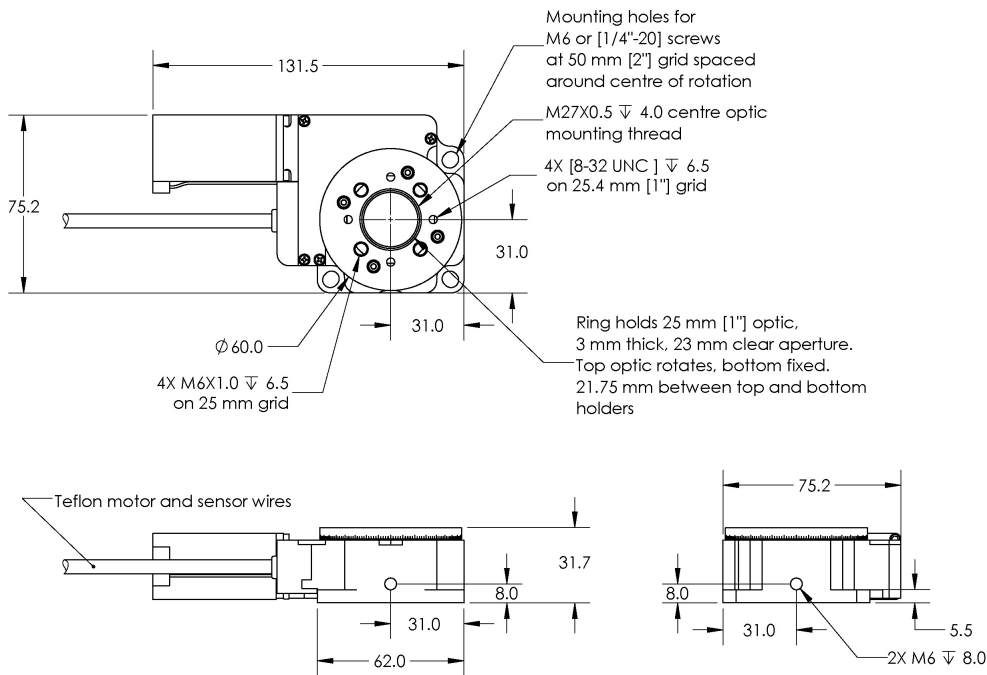
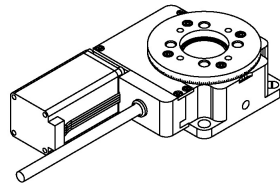
The RSW-V2 is designed with vacuum compatible materials to minimize outgassing and allow for faster pump down times. Like all of Zaber's products, the RSW-V2 Series is designed to be very easy to set up and operate.

These stages are wired with a male D-sub 15 connector for plug-and-play use with our X-MCB1 Series stepper motor controllers. Simply cut the connector off for flying leads in vacuum and match the wire connections outside of the vacuum for an easy connection. Our handy kits include free software, and all of the accessories that you will need to get the stage running right out of the box.

Drawings

ZABER

RSW-V Vacuum Compatible Motorized Rotary Stage
dimensions in mm



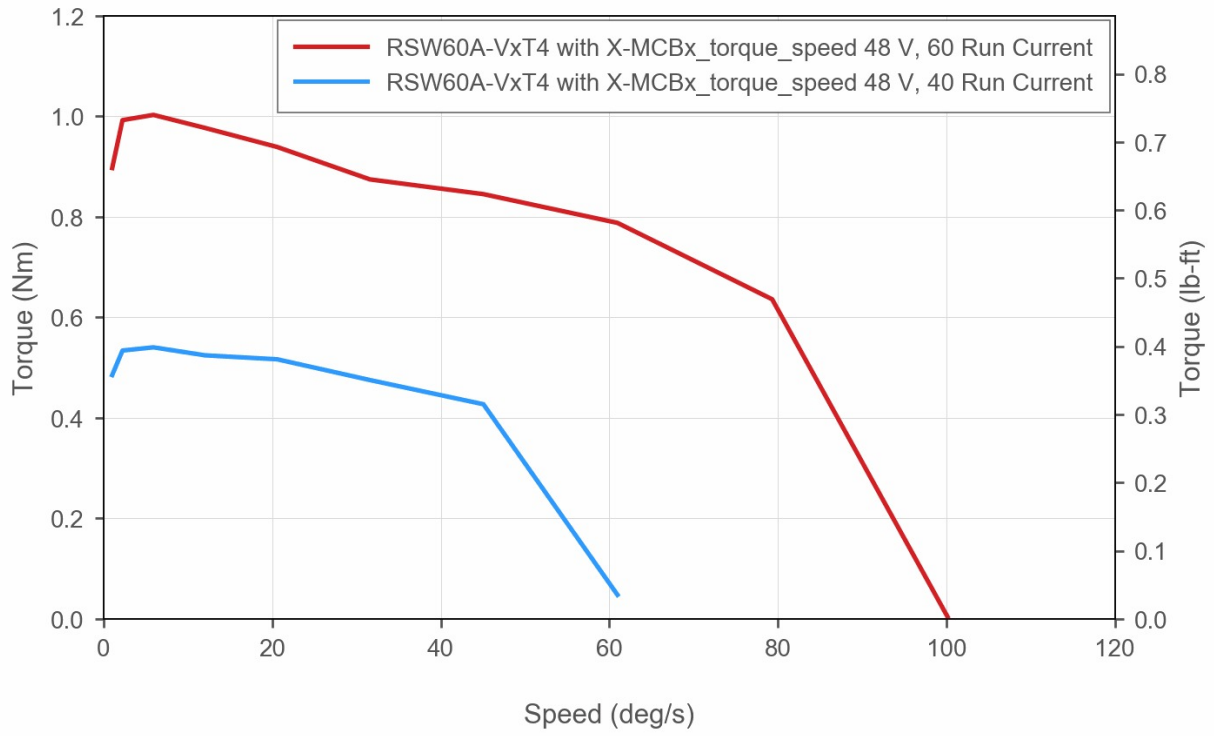
DWG-1120-001

Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.000234375 °	4.091 μrad
Built-in Controller	No	
Recommended Controller	X-MCB1 (48 V) Recommended	
Range	360 °	
Accuracy (unidirectional)	0.14 °	2.443000 mrad
Repeatability	< 0.02 °	< 0.349 mrad
Backlash	< 0.04 °	< 0.698 mrad
Maximum Speed	100 °/s	16.7 rpm
Minimum Speed	0.000143 °/s	2.496 μrad/s
Encoder Type	None	
Maximum Torque	100 N-cm	141.6 oz-in
Maximum Centered Load	200 N	44.9 lb
Maximum Cantilever Load	410 N-cm	580.6 oz-in
Stage Top Dimension	60 mm	2.362 "
Angular Motion Per Motor Rev	3 °	
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Motor Rated Current	1300 mA/phase	
Inductance	1 mH/phase	
Motor Connection	Teflon flying leads with D-sub15 connector	
Default Resolution	1/64 of a step	
Mechanical Drive System	Precision Worm Gear	
Limit or Home Sensing	Magnetic home sensor	
Manual Control	No	
Vacuum Compatible	High vacuum (10 ⁻⁶ Torr)	
Operating Temperature Range	0-50 °C	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.620 kg	1.367 lb

Charts

Torque Speed Performance



Recommended Duty Cycle

