RSW-E Series Datasheet

- Worm gear driven for continuous rotation
- Two lens holders allow for use as a polarizer mount
- Speed up to 75 rpm and torque up to 225 N-cm
- Encoder position feedback with slip/stall detection and automatic recovery
- 23 mm aperture
- Designed for use with an X-MCB1 controller, or can be used with any 2-phase stepper motor controller
- Custom versions available

Overview

Zaber's RSW-E precision motorized rotation stages, with integrated motor encoders, are stepper motor and worm gear driven and capable of continuous rotation. RSW-E stages are designed for plug-and-play use with any of Zaber's controllers.

Drawings

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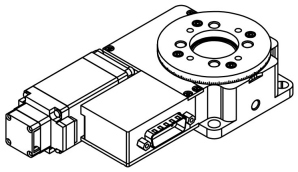
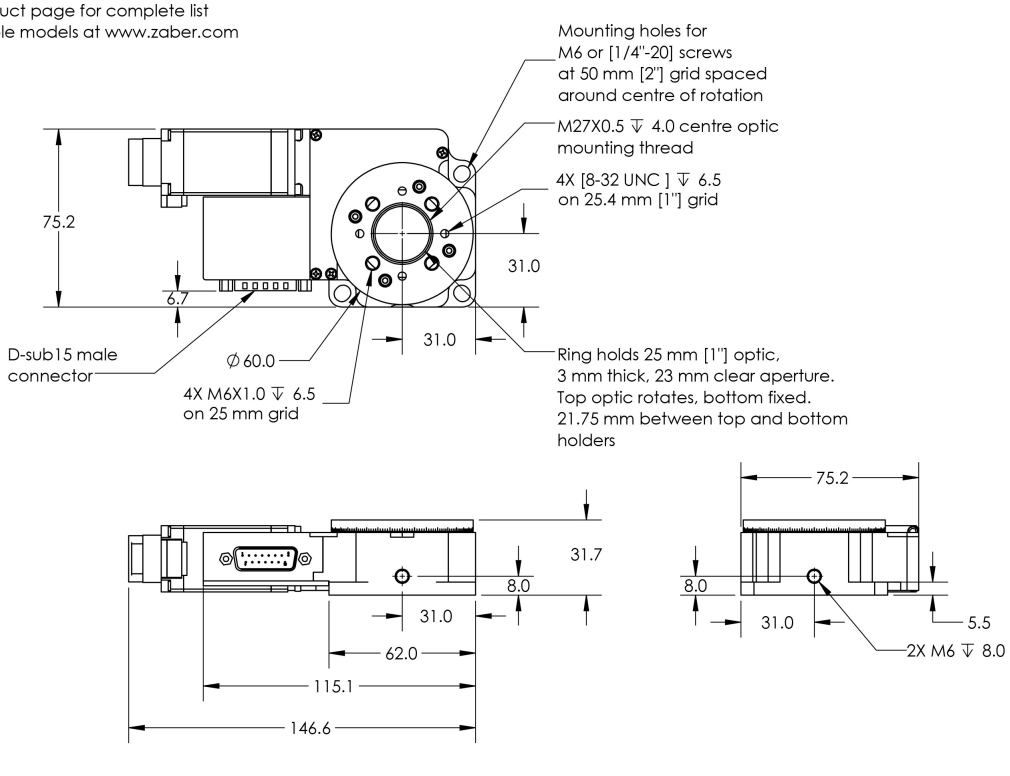
RSW-E Motorized Rotary Stage
dimensions in mm



*See product page for complete list
of available models at www.zaber.com



DWG 1185 R01

Specifications

Specification	Value	Alternate Unit
Built-in Controller	No	
Recommended Controller	X-MCB1 (48 V) Recommended	
Range	360 °	
Accuracy (unidirectional)	0.08 °	1.396000 mrad
Repeatability	< 0.02 °	< 0.349 mrad
Backlash	< 0.04 °	< 0.698 mrad
Encoder Resolution	200 CPR	800 states/rev
Encoder Type	Rotary quadrature encoder	
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 "
Motor Type	Stepper (2 phase)	
Motor Rated Current	1500 mA/phase	
Motor Winding Resistance	2.05 ohms/phase	
Inductance	1 mH/phase	
Motor Connection	D-sub 15	
Mechanical Drive System	Precision Worm Gear	
Limit or Home Sensing	Magnetic home sensor	
Vacuum Compatible	No	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.64 kg	1.411 lb

Part Number	Microstep Size (Default Resolution)	Maximum Speed	Minimum Speed	Maximum Continuous Torque
RSW60A-E03T3	0.000234375 ° (4.091 µrad)	115 °/s (19.2 rpm)	0.000143 °/s (2.496 µrad/s)	225 N-cm (318.6 oz-in)
RSW60C-E03T3	0.0009375 ° (16.362 µrad)	450 °/s (75.0 rpm)	0.000572 °/s (9.983 µrad/s)	105 N-cm (148.7 oz-in)

Part Number	Angular Motion Per Motor Rev

Part Number	Angular Motion Per Motor Rev
RSW60A-E03T3	3 °
RSW60C-E03T3	12 °

Charts