

## X-RSW Series Datasheet



- Speed up to 75 rpm and torque up to 2.25 N-m
- 20 kg centered load capacity
- Two lens holders allow for use as a polarizer mount
- Worm gear driven for continuous rotation
- Built-in controller; daisy-chains with other Zaber products
- Multiple X-Series products in a daisy-chain can share a single power supply
- Custom versions available

### X-RSW Series Overview

Zaber's X-RSW Series products are motorized rotary stage devices with built-in controllers. Rated for 2.25 N-m of torque they are ideal for high precision, angular positioning applications.

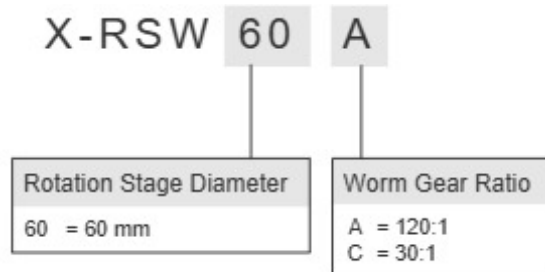
They are stand-alone units requiring only a standard 24-48 V power supply. An indexed knob provides smooth manual control at variable speeds in both directions for versatile operation even without a computer. Press and hold to switch between velocity mode and position mode, turn to move the stage, and press to stop.

The stages connect to the USB 2.0 or RS-232 port of any computer and can be chained with several units per chain. They can be chained with any other Zaber products. Convenient locking, 4-pin, M8

connectors on the unit allow for easy and secure connection between products. The chain also shares power, so multiple X-Series products can use a single power supply.

For more information visit: <https://www.zaber.com/products/rotary-stages/X-RSW>

## X-RSW Series Part Numbering & Options



## X-RSW Series Drawings

- [X-RSW.png \(Drawing for the X-RSW\)](#)

## X-RSW Series Specifications

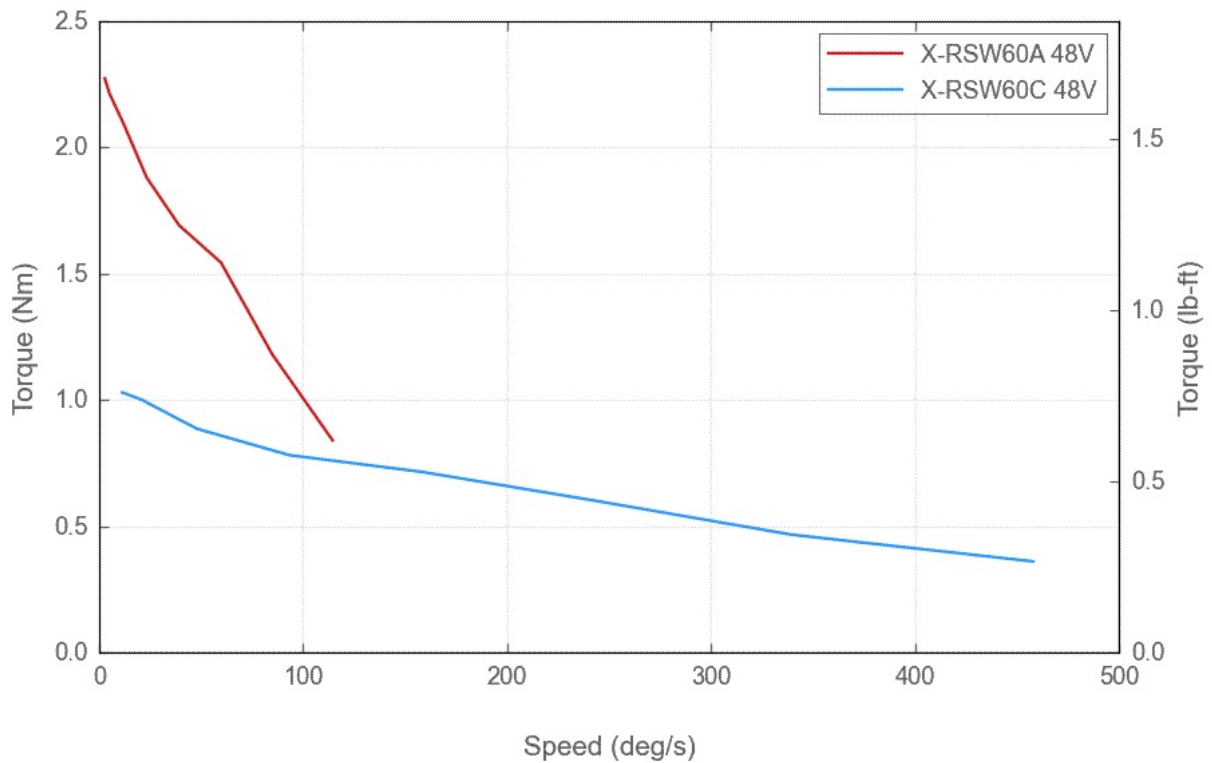
<b>Built-in Controller</b>	
Range	360°
Accuracy (unidirectional)	0.08° (1.396000 mrad)
Repeatability	< 0.02° (< 0.349 mrad)
Backlash	< 0.04° (< 0.698 mrad)
Encoder Type	No
Communication Interface	RS-232
Communication Protocol	Zaber ASCII (Default), Zaber Binary
Data Cable Connection	Locking 4-pin M8
Maximum Centered Load	200 N (44.9 lb)
Maximum Moment (Transverse)	410 N-cm (580.6 oz-in)
Stage Top Dimension	60 mm (2.362")
Radial Error Motion	+/- 4 µm (+/- 0.000157")
Axial Error Motion	< 4 µm (< 0.000157")
Tilt Error Motion	+/- 0.0033° (+/- 57.60 µrad)
Bearing Plane Offset	16.4 mm (0.646")
Power Supply	24-48 VDC
Power Plug	2-pin Screw Terminal
Maximum Current Draw	950 mA
Motor Steps Per Rev	200
Motor Type	Stepper (2 phase)
Motor Rated Current	1500 mA/phase
Inductance	1 mH/phase
Default Resolution	1/64 of a step
Mechanical Drive System	Precision Worm Gear
Limit or Home Sensing	Magnetic home sensor
Manual Control	Yes
Operating Temperature Range	0-50 °C
CE Compliant	Yes
Vacuum Compatible	No
Weight	0.66 kg (1.455 lb)

Part Number	Microstep Size (Default Resolution)	Maximum Speed	Minimum Speed	Speed Resolution
X-RSW60A	0.000234375° (4.091 μrad)	115°/s (19 rpm)	0.000143°/s (2.496 μrad/s)	0.000143°/s (2.496 μrad/s)
X-RSW60C	0.0009375° (16.362 μrad)	450°/s (75 rpm)	0.000572°/s (9.983 μrad/s)	0.000572°/s (9.983 μrad/s)

Part Number	Maximum Continuous Torque	Angular Motion Per Motor Rev
X-RSW60A	225 N-cm (318.6 oz-in)	3°
X-RSW60C	105 N-cm (148.7 oz-in)	12°

## X-RSW Series Charts

### Torque Speed Performance



## Contact

Email: [contact@zaber.com](mailto:contact@zaber.com)

Phone (toll free Canada/USA): 1-888-276-8033

Phone (direct): 1-604-569-3780

Fax: 1-604-648-8033

Zaber Technologies Inc.

#2 - 605 West Kent Ave. N.

Vancouver, British Columbia

Canada, V6P 6T7

<https://www.zaber.com>