

X-RST Series Datasheet

- 21 mm total height
- 0.02° repeatability
- 4 mm aperture
- 50 N load capacity
- Worm gear driven for continuous rotation
- Built-in controller; daisy-chains with other Zaber products
- Encoder position feedback with slip/stall detection and automatic recovery

Zaber's X-RST Series products are motorized rotation stages with built-in controllers. Rated for a 50 kg centered load capacity and 10 N-m of torque, they are ideal for high load, angular positioning applications.

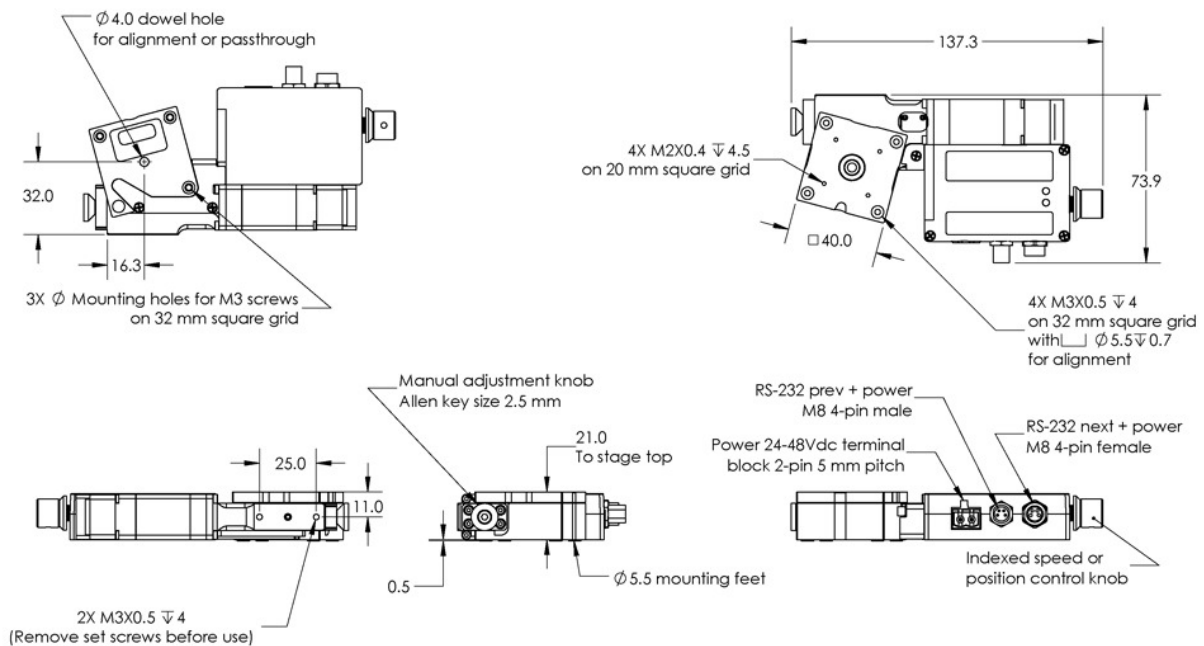
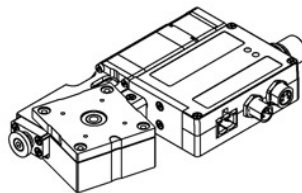
They are stand-alone units requiring only a standard 24-48 V power supply. An indexed knob provides smooth manual control at variable speeds in both directions for versatile operation even without a computer. Press and hold to switch between velocity mode and position mode, turn to move the stage, and 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. The chain also shares power, so multiple X-Series products can use a single power supply.

Drawings

ZABER

X-RSM-E Motorized Rotary Stage With Built In Controller
dimensions in mm



0460 1709 #02

Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.00046875 °	8.181 µrad
Built-in Controller	Yes	
Range	360 °	
Accuracy (unidirectional)	0.14 °	2.443000 mrad
Repeatability	< 0.02 °	< 0.349 mrad
Backlash	< 0.04 °	< 0.698 mrad
Maximum Speed	120 °/s	20.0 rpm
Minimum Speed	0.000286 °/s	4.992 µrad/s
Encoder Resolution	200 CPR	800 states/rev
Encoder Type	Rotary quadrature encoder	
Communication Interface	RS-232	
Communication Protocol	Zaber ASCII (Default), Zaber Binary	
Maximum Continuous Torque	60 N-cm	85.0 oz-in
Maximum Centered Load	50 N	11.2 lb
Maximum Cantilever Load	100 N-cm	141.6 oz-in
Stage Top Dimension	40 mm	1.575 "
Maximum Current Draw	350 mA	
Power Supply	24-48 VDC	
Power Plug	2-pin Screw Terminal	
Angular Motion Per Motor Rev	6 °	
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Inductance	3.5 mH/phase	
Default Resolution	1/64 of a step	
Data Cable Connection	Locking 4-pin M8	
Motor Frame Size	NEMA 08	
Mechanical Drive System	Precision Worm Gear	
Limit or Home Sensing	Magnetic home sensor	
Manual Control	Yes	
Mounting Interface	M2 and M3 mounting holes	

Specification	Value	Alternate Unit
Vacuum Compatible	No	
Operating Temperature Range	0-50 °C	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.278 kg	0.613 lb

Charts

