

X-RST-DE Series Datasheet

- 20 mm or 40 mm of travel
- Up to 48 mm/s speed and up to 200 N thrust
- 10 kg load capacity
- 55 or 85 mm retracted height
- Designed for use with an X-MCB1 Series stepper motor controller or any 2-phase stepper motor controller

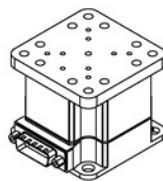
Zaber's X-RST-DE Series products are motorized rotation stage devices with built-in controllers and direct reading encoders for high accuracy motion. Rated for a 50 kg centered load capacity and 10 N-m of torque, they are ideal for high load, high precision, angular positioning applications.

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. The chain also shares power, so multiple X-Series products can use a single power supply.

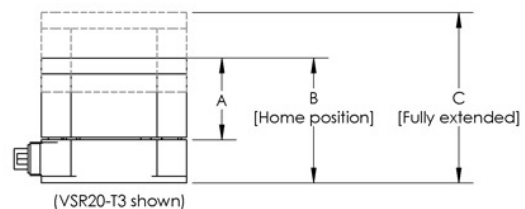
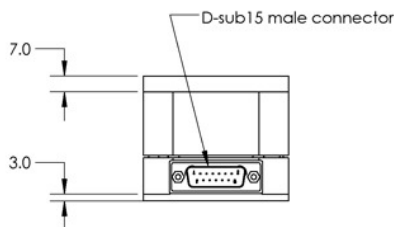
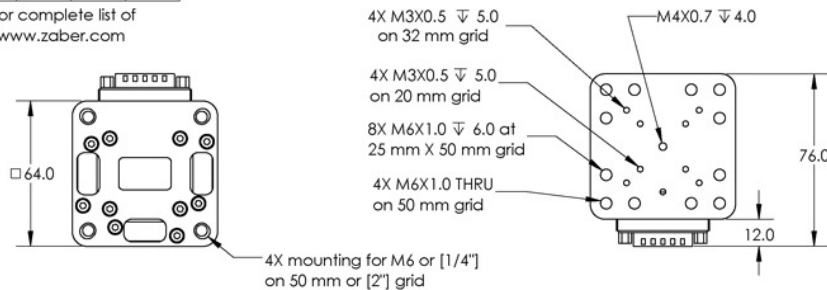
Drawings

ZABER
VSR-T3 Vertical Lift Stage
dimensions in mm



Model Number*	Travel	A	B	C
VSR20-T3	20.0	36.0	55.0	75.0
VSR40-T3	40.0	66.0	85.0	125.0

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



040 1088 R12

Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.09525 μm	
Recommended Controller	X-MCB1 (48 V) Recommended	
Accuracy (unidirectional)	35 μm	0.001378 "
Repeatability	< 1 μm	< 0.000039 "
Maximum Speed	48 mm/s	1.890 "/s
Peak Thrust	200 N	44.9 lb
Maximum Continuous Thrust	100 N	22.4 lb
Maximum Centered Load	100 N	22.4 lb
Maximum Cantilever Load	300 N-cm	424.8 oz-in
Pitch	0.08 °	1.396 mrad
Roll	0.08 °	1.396 mrad
Linear Motion Per Motor Rev	1.2192 mm	0.048 "
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Motor Rated Current	1500 mA/phase	
Inductance	1.9 mH/phase	
Motor Connection	D-sub 15	
Default Resolution	1/64 of a step	
Mechanical Drive System	Precision Lead Screw	
Limit or Home Sensing	Magnetic home sensor	
Axes of Motion	1	
Mounting Interface	M6 and M3 threaded holes	
Vacuum Compatible	No	
Operating Temperature Range	0-50 °C	
RoHS Compliant	Yes	
CE Compliant	Yes	
Loaded Backlash (10 N)	< 10 μm	< 0.000394 "

Part Number	Travel Range	Backlash	Guide Type	Horizontal Runout
-------------	--------------	----------	------------	-------------------

Part Number

Weight

Charts

Thrust Speed Performance

