

- 150, 300 or 450 mm travel per axis
- Up to 330 mm/s speed or 100 N thrust depending on lead screw choice
- Designed for use with X-MCB2 Series two-axis stepper motor controllers

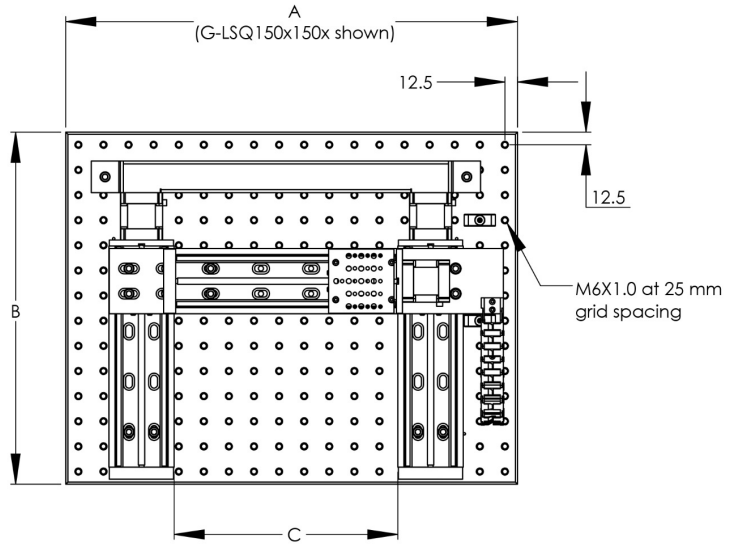
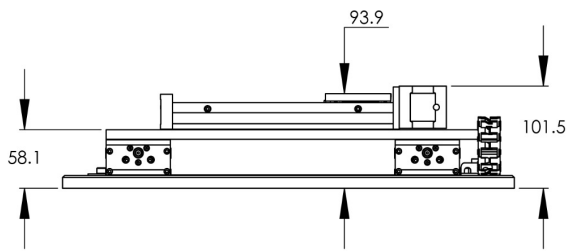
## Product Description

Zaber's G-LSQ Series gantry systems are based on the robust and fast LSQ Series linear stages. These systems offer a complete turn-key solution including the X-MCB2 controller, power supply, and all the accessories needed to operate the system. They are available pre-assembled on a custom breadboard, or as separate components, ready to be integrated into your own set-up. The G-LSQ Series gantries are designed for multi-axis applications where heavier loads require the additional support of two lower axis stages or where access is required to the area under the system. A coupled lead screw design provides high stiffness for quick and precise response. These gantries will support loads up to 18 kg and can move at speeds up to 330 mm/s.

## Dimension Drawings

Model Number*	A	B	C
G-LSQ150x150x	450.0	350.0	223.0
G-LSQ300x300x	650.0	500.0	418.0
G-LSQ450x450x	775.0	650.0	537.0
G-LSQ600x600x	900.0	800.0	691.0

\*See product page for complete list of available models at [www.zaber.com](http://www.zaber.com)



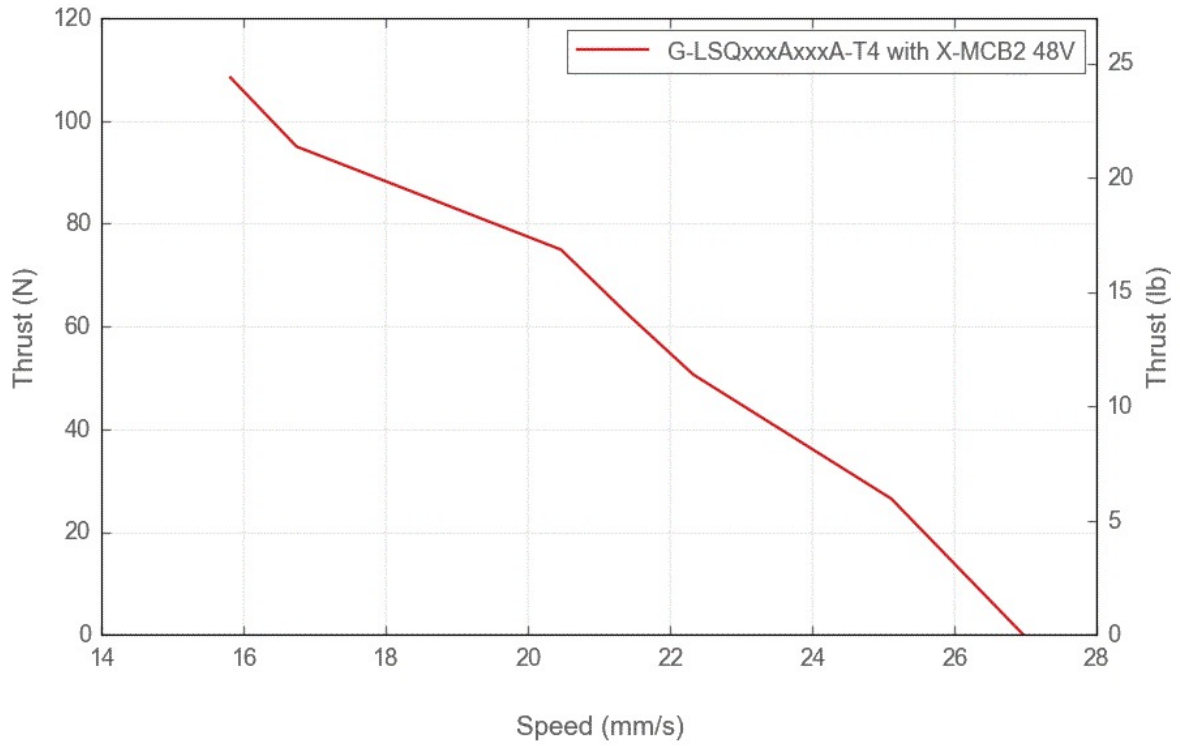
## Product Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.09921875 $\mu\text{m}$	
Built-in Controller	No	
Recommended Controller	X-MCB2 (48 V) Included	
Travel Range	150 x 150 mm	
Accuracy (unidirectional)	45 $\mu\text{m}$	0.001772 "
Repeatability	< 4 $\mu\text{m}$	< 0.000157 "
Backlash	< 8 $\mu\text{m}$	< 0.000315 "
Maximum Speed	23 mm/s	0.906 "/s
Minimum Speed	0.00093 mm/s	0.000037 "/s
Speed Resolution	0.00093 mm/s	0.000037 "/s
Encoder Type	None	
Peak Thrust	140 N	31.4 lb
Maximum Continuous Thrust	100 N	22.4 lb
Maximum Centered Load	180 N	40.4 lb
Guide Type	Roller Bearing	
Vertical Runout	< 13 $\mu\text{m}$	< 0.000512 "
Maximum Current Draw	1200 mA	
Linear Motion Per Motor Rev	1.27 mm	0.050 "
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Motor Rated Current	1200 mA/phase	
Motor Winding Resistance	3.3 ohms/phase	
Inductance	2.8 mH/phase	
Motor Rated Power	9.6 Watts	
Motor Connection	D-sub 15	
Mechanical Drive System	Precision lead screw	
Limit or Home Sensing	Magnetic home sensor	
Axes of Motion	2	
Mounting Interface	M6 threaded holes and 8-32 threaded holes	
Operating Temperature Range	0 to 50 $^{\circ}\text{C}$	
Stage Parallelism	< 100 $\mu\text{m}$	< 0.003937 "
RoHS Compliant	Yes	

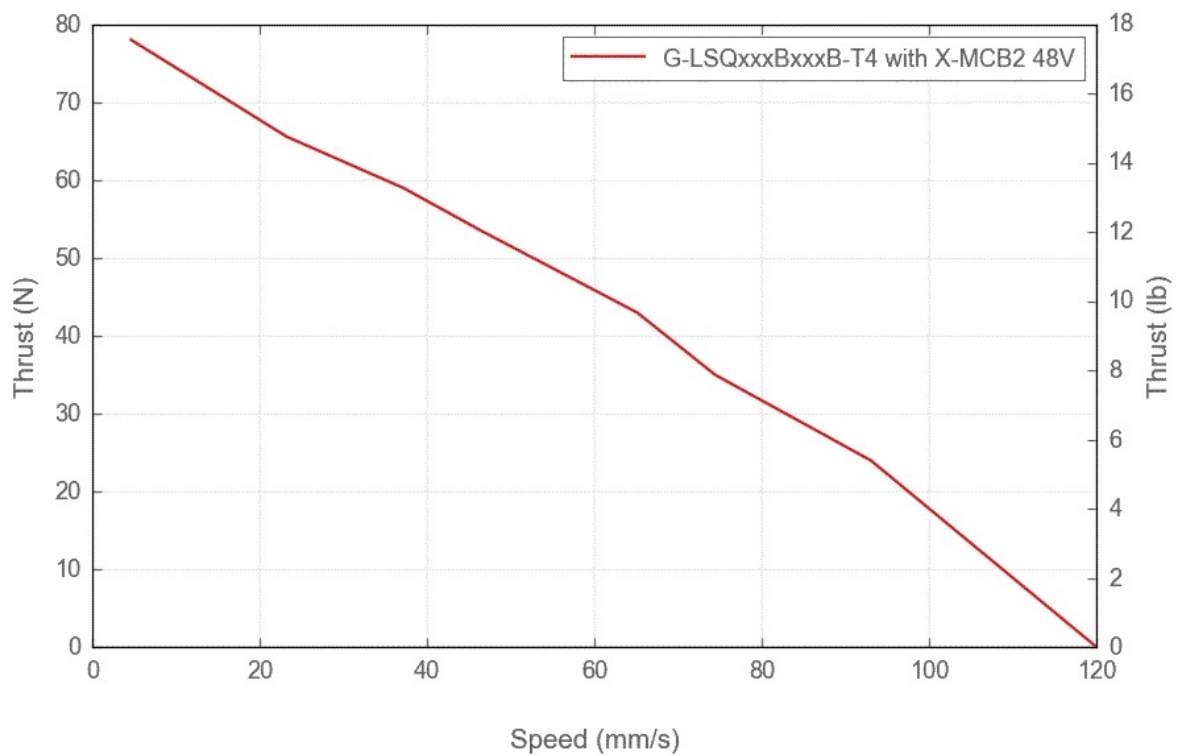
Specification	Value	Alternate Unit
CE Compliant	Yes	
Weight	10.41 kg	22.950 lb

Specification Charts

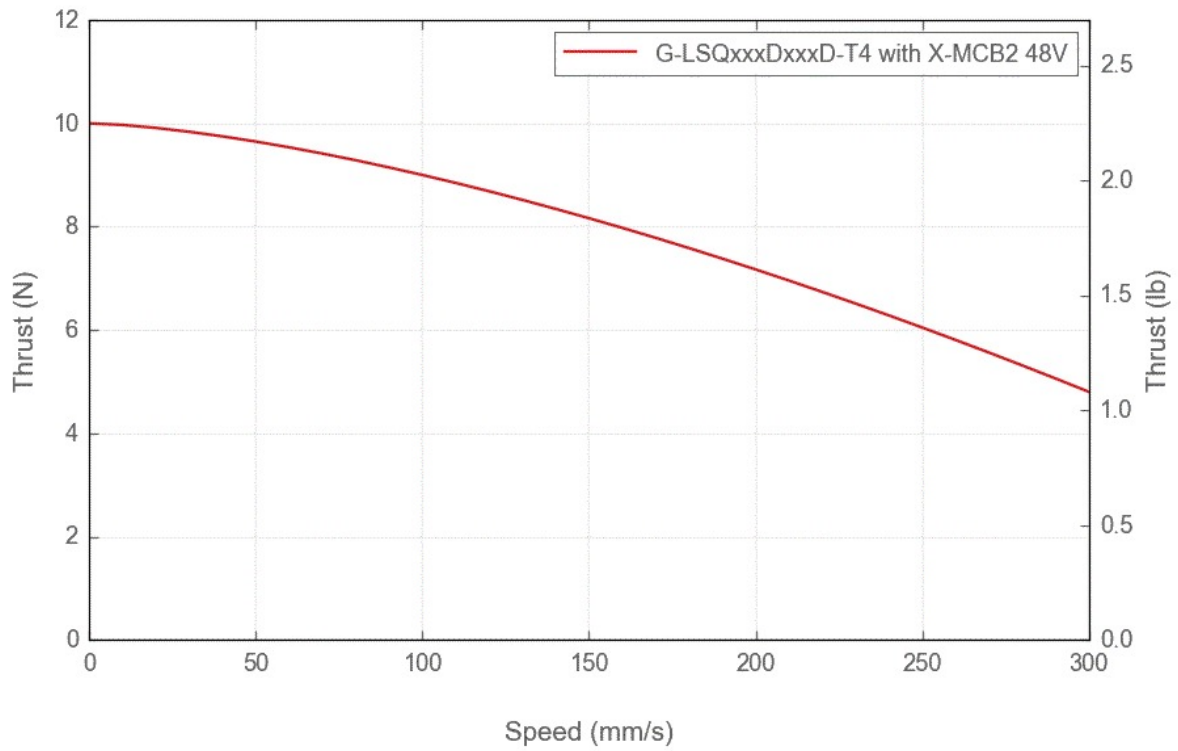
Thrust Speed Performance



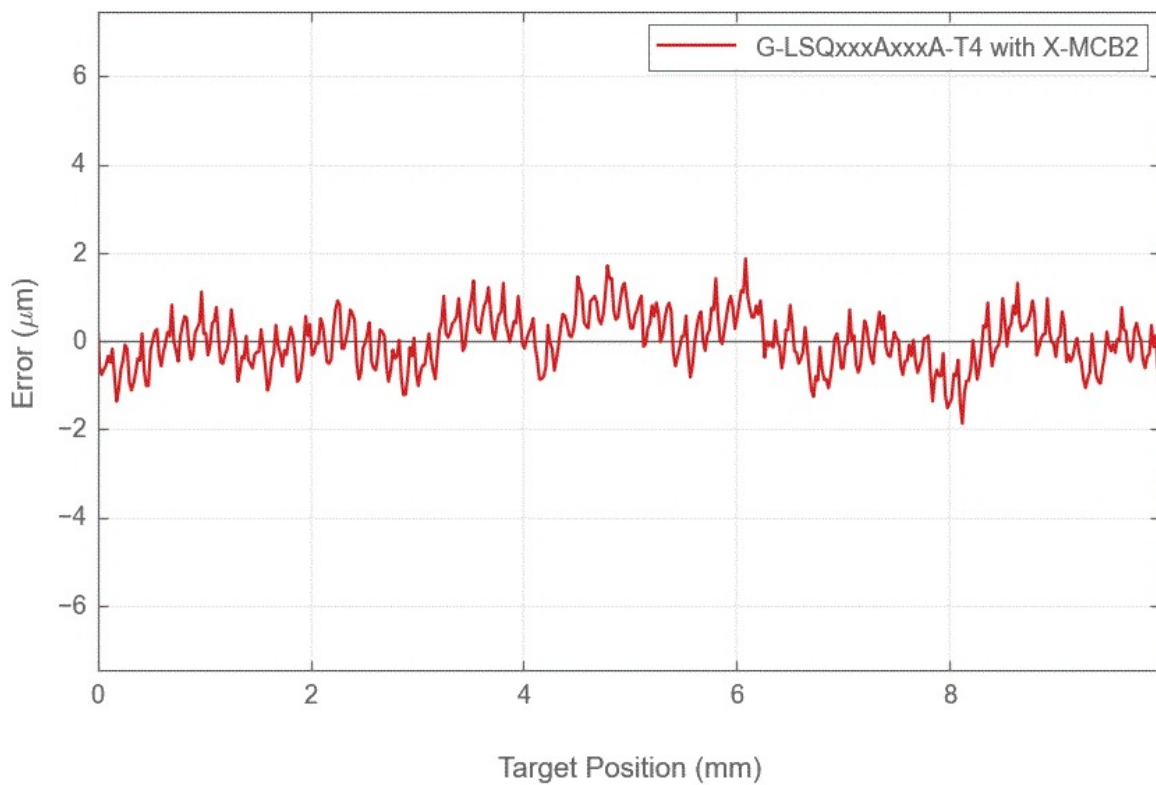
Thrust Speed Performance



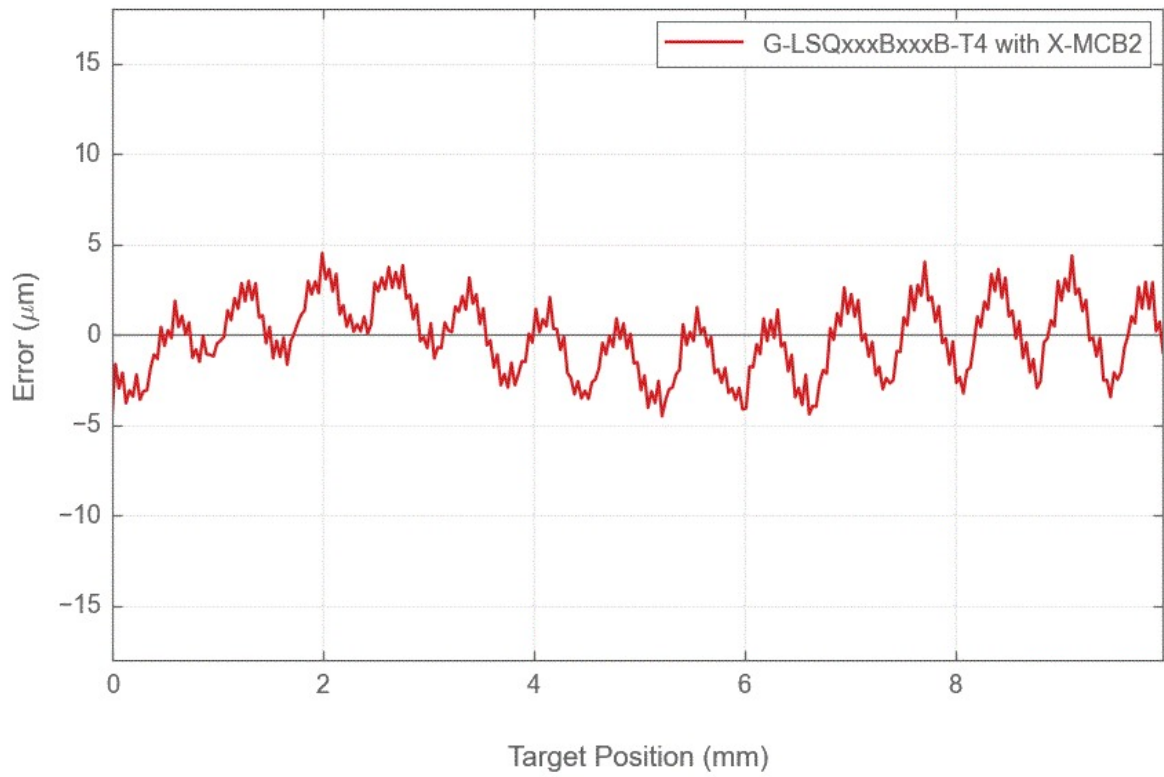
### Thrust Speed Performance



### Typical Accuracy



### Typical Accuracy



### Typical Accuracy

