T-NA Series Datasheet

- 25 and 50 mm travel
- Up to 8 mm/s speed and up to 50 N thrust
- Our most compact, precise and robust actuators with built-in controllers
- Built-in controller; daisy-chains data and power with other T-Series products
- Designed to replace standard micrometer heads on manual translation stages
- Hardened ball-tip (removable so you can use the built-in threaded tip or a flat tip)
- Custom versions available

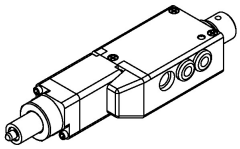
Overview

Please see our TSB linear slides for more information on compatible slides.

Drawings

ZABER

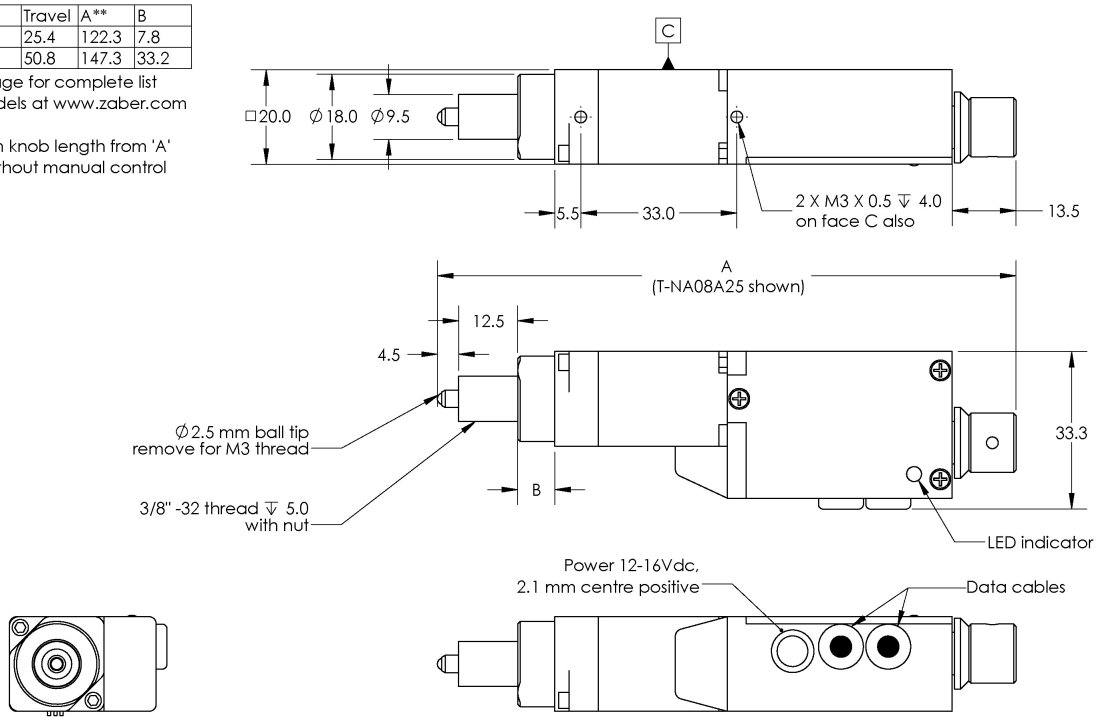
T-NA Micro Linear Actuator With Built-In Controller
dimensions in mm



Model Number*	Travel	A**	B
T-NA08A25	25.4	122.3	7.8
T-NA08A50	50.8	147.3	33.2

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

**Subtract 12mm knob length from 'A' for -S versions without manual control



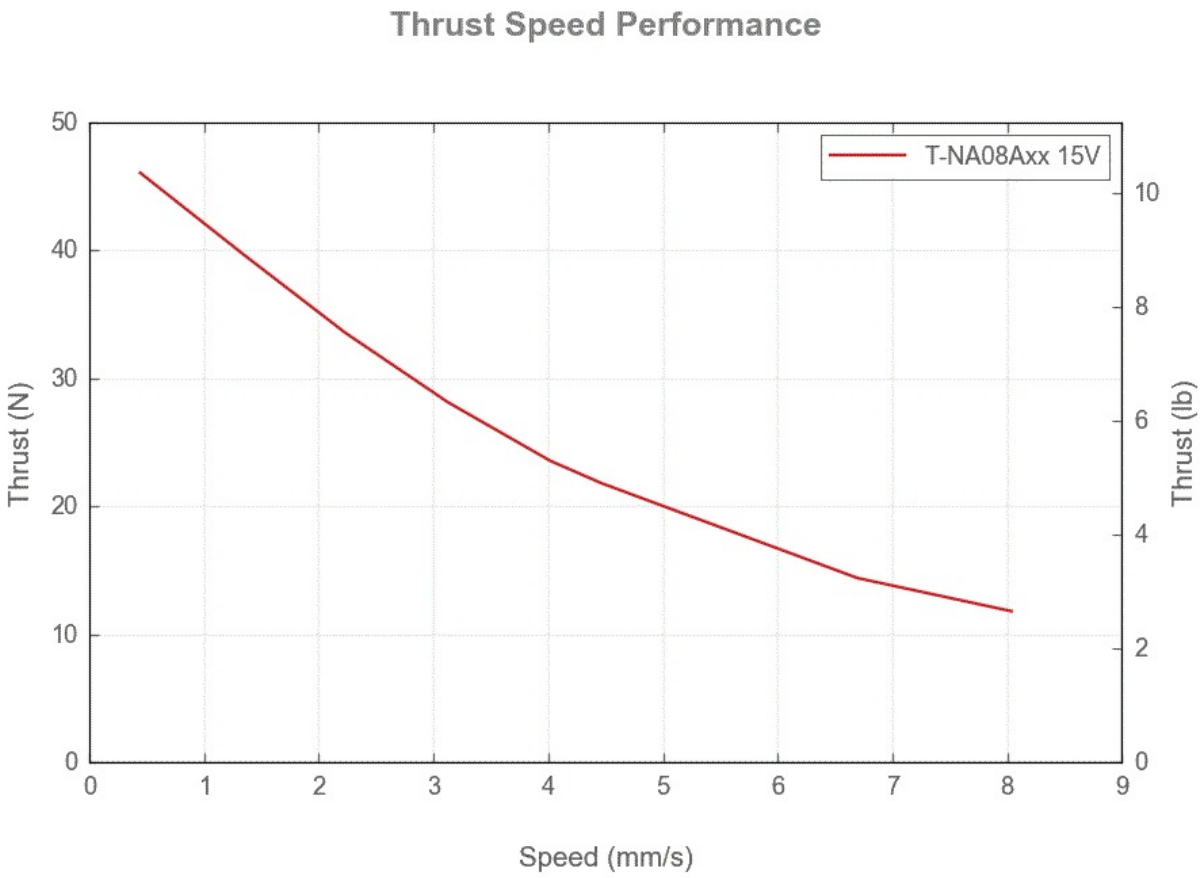
DWG-1073-R02B

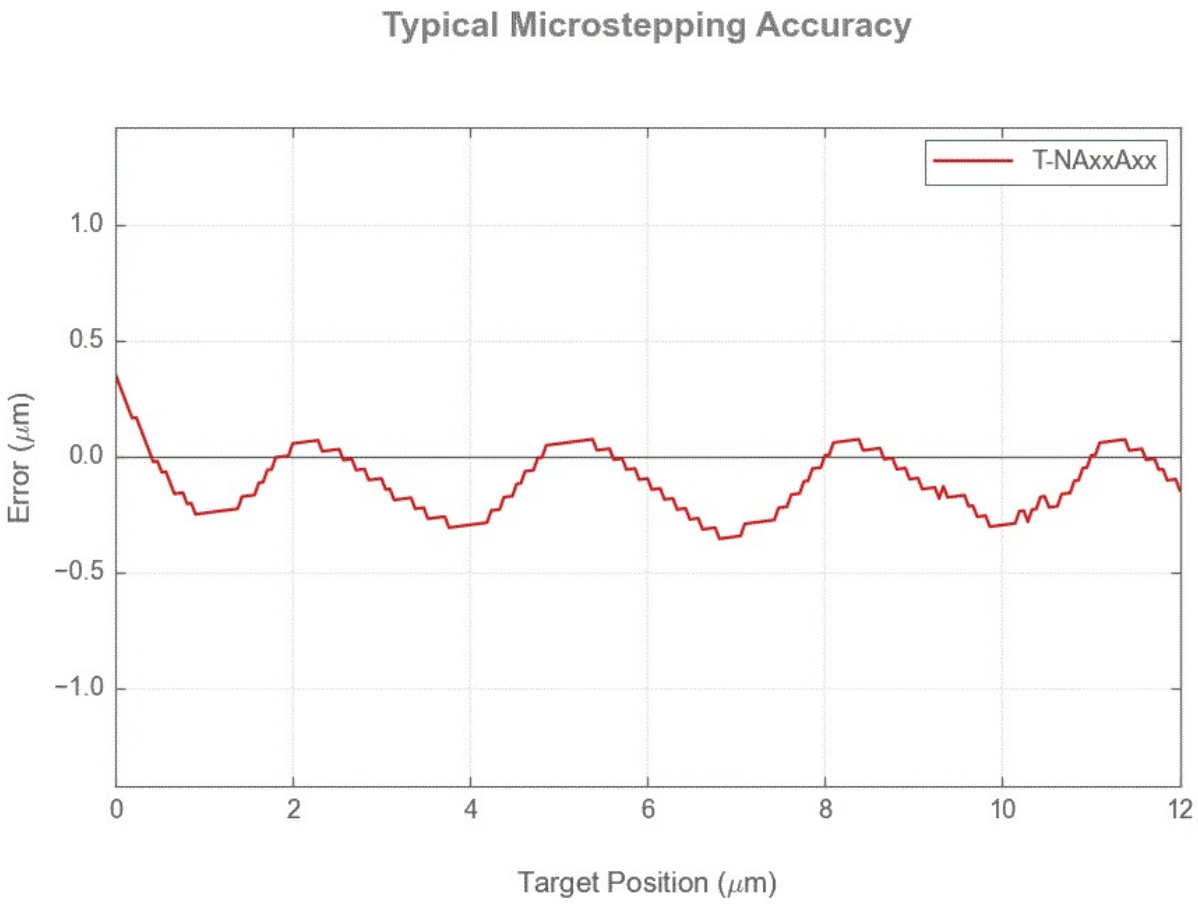
Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.047625 µm	
Built-in Controller	Yes	
Travel Range	50.8 mm	2.000 "
Accuracy (unidirectional)	55 µm	0.002165 "
Repeatability	< 1 µm	< 0.000039 "
Backlash	< 4 µm	< 0.000157 "
Maximum Speed	8 mm/s	0.315 "/s
Minimum Speed	0.00022 mm/s	0.000009 "/s
Speed Resolution	0.00022 mm/s	0.000009 "/s
Encoder Type	None	
Peak Thrust	50 N	11.2 lb
Maximum Continuous Thrust	50 N	11.2 lb
Communication Interface	RS-232	
Communication Protocol	Zaber Binary	
Maximum Current Draw	350 mA	
Power Supply	12-16 VDC	
Power Plug	2.1 mm center positive	
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Inductance	1.5 mH/phase	
Default Resolution	1/64 of a step	
Data Cable Connection	Minidin 6	
Mechanical Drive System	Precision lead screw	
Limit or Home Sensing	Magnetic hall sensor	
Manual Control	Yes	
Axes of Motion	1	
LED Indicators	Yes, Bi-colour	
Mounting Interface	3/8-32 nut, 3/8" shank, or M3 screws	
Vacuum Compatible	No	
Operating Temperature Range	0 to 50 °C	

Specification	Value	Alternate Unit
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.15 kg	0.331 lb

Charts




Typical Microstepping Accuracy
T-NAxxAxx
1.0
0.5
0.0
−0.5
−1.0
Error (µm)
0
2
4
6
8
10
12
Target Position (µm)