

LAC Series Datasheet



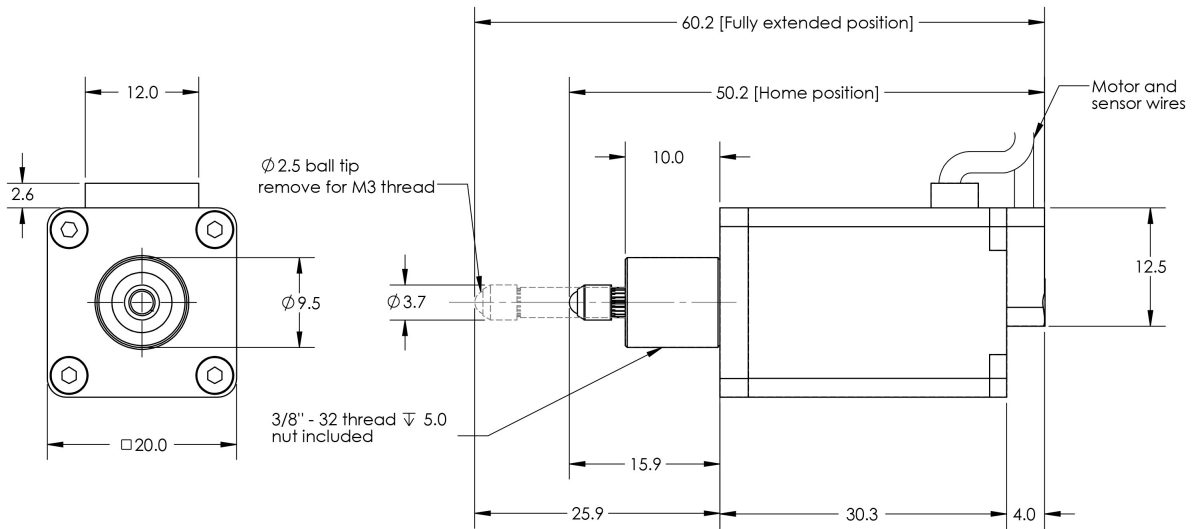
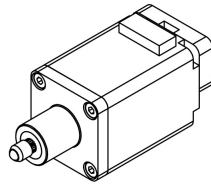
- Compact size: great for applications with limited space
- 10 mm travel
- Resolution down to 0.024 μm
- Multiple tip options included
- Designed for use with an X-MCB1 controller or any 2-phase stepper motor controller

Overview

The LAC actuator is our most compact actuator and with a 0.024 μm microstep size, it offers the finest resolution as well. The LAC actuator is wired with a male D-sub 15 connector for plug-and-play use with our X-MCB1 Series stepper motor controllers. Its compact design makes it suitable for OEM or lab applications involving tight spaces and ultra-high precision. The LAC has improved accuracy, backlash and repeatability when compared to our NA products, without sacrificing thrust and speed performance. The shank of the actuator is designed to replace most micrometer heads in manual stages and the hardened ball-tip is removable for increased versatility.

Drawings

ZABER
LAC Compact Motorized Actuator
dimensions in mm



DWG 1076 R01

Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.0238125 μm	
Built-in Controller	No	
Recommended Controller	X-MCB1 (24 V) Recommended	
Travel Range	10 mm	0.394 "
Accuracy (unidirectional)	10 μm	0.000394 "
Repeatability	< 1.5 μm	< 0.000059 "
Backlash	< 2 μm	< 0.000079 "
Maximum Speed	12 mm/s	0.472 "/s
Minimum Speed	0.0000145 mm/s	0.000001 "/s
Speed Resolution	0.0000145 mm/s	0.000001 "/s
Encoder Type	None	
Peak Thrust	40 N	9.0 lb
Linear Motion Per Motor Rev	0.3048 mm	0.012 "
Motor Type	Stepper (2 phase)	
Motor Rated Current	240 mA/phase	
Motor Winding Resistance	20.4 ohms/phase	
Inductance	5 mH/phase	
Motor Connection	D-sub 15	
Motor Frame Size	8	
Mechanical Drive System	Precision lead screw	
Limit or Home Sensing	Magnetic Home Sensor	
Axes of Motion	1	
Mounting Interface	3/8-32 nut or 3/8"(9.5mm) shank	
Vacuum Compatible	No	
Operating Temperature Range	0 to 50 °C	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.076 kg	0.168 lb

Charts

Thrust Speed Performance

