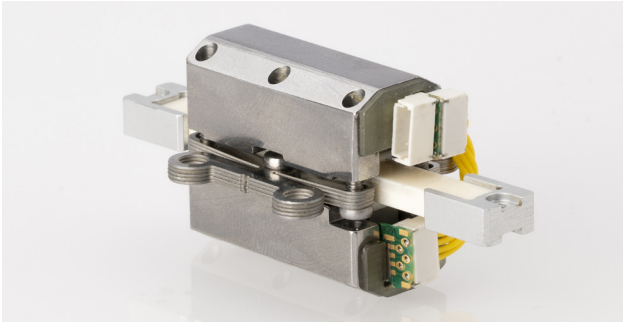




Piezo LEGS® LT40A Linear Actuator



Key features

- 40 N force
- Sub nanometer precision
- Direct drive and no backlash
- No power draw in hold position
- Non-magnetic and vacuum capable
- Unparalleled size to force ratio

Product Description

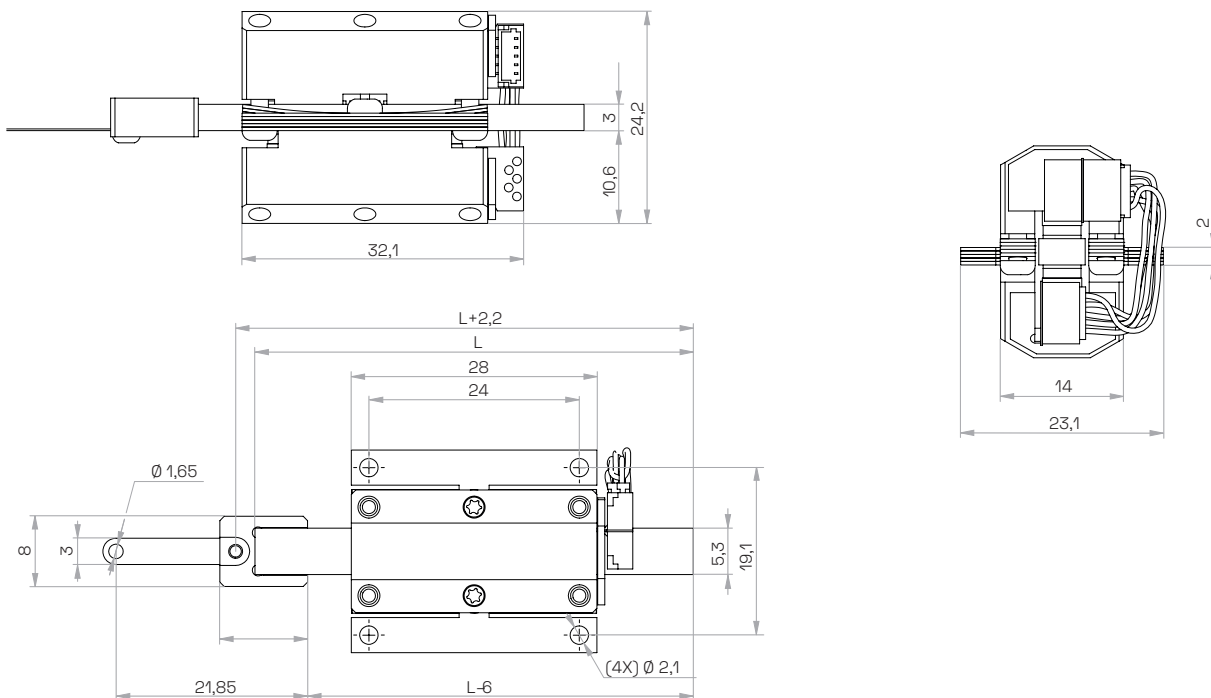
The drive technology employed is direct, eliminating the need for gears or lead screws to generate linear motion. The motor operates through micro-stepping, dividing a complete waveform-step into sub nanometer-sized increments. Speed ranges from nanometers per second to millimeters per second and can be seamlessly controlled within the entire dynamic range. Additionally, it offers high force out-

put within a compact body, achieving a stall force of 40N and a weight of only 61 grams.

The motor has no backlash.

Available in three versions: Standard stainless steel for normal environments (A), Vacuum version (C) and Non-magnetic vacuum version (D). Each version is offered with M1 or M2 mounting.

Product Dimensions (mm)



piezomotor.com



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Piezo LEGS® LT40ACD

Type	Normal (A)	Non-magnetic (C)	Non-magnetic Vacuum (D)
Maximum stroke	67 mm		
Speed range @ Rhomb, no load, 20°C	1 nm/s – 12 mm/s (check driver)		
Step length, full step @ Delta, no load, 20°C	5 µm		
Maximum speed (driver and waveform dependent)	12 mm/s		
Max operating frequency (driver dependent)	1.5 kHz		
Movement resolution	<1 N		
Stall force	40 N		
Holding force	>40 N		
Vacuum	No		Yes (10 ⁻⁷ torr)
Non-magnetic	No	Yes	
Max operating voltage	48 V		
Power consumption	20 mW/Hz		
Mechanical size L x H x D	32.1 x 24.2 x 23.1		
Weight with 50 mm drive rod ^a	61 g		
Material in motor housing	Stainless steel	Arcap (non-magnetic)	
Operating temperature (recommended)	-20 to +70 °C		
Storage temperature	-20 to +70 °C		
Built in encoder	No		
Connector motor (motor side)	2 x JST BM05B-SRSS-TB		Soldered cable w. 2 x JST 05SR-3S
Control	Open loop or closed loop		
Lifetime (Cycles), [Room temp,1ATM and Half Load]	2,5 X 10 ⁹ WFM-S*		
Index	N/A		
Max. acceleration	800 Hz/ms		

All specifications are subject to change without notice.

Controllers

PMD301

1-axis micro-step driver/controller - max 3 kHz, RS485 or USB

PMD401

1-axis micro-step driver/controller - stackable PCB, max 1.5 kHz, RS485 or SPI

Standard lengths of drive rods are 30, 40, 50, 60 and 101 mm, Other drive rod lengths between 30 and 100.8 mm can made on request, at an extra charge.

*Wave Form Step

Starter Kit

PMD301/401 controller, motor cables, USB-to-RS485 cable, and power supply

Piezo Drive lab software downloadable from acuvi.com

piezomotor.com



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