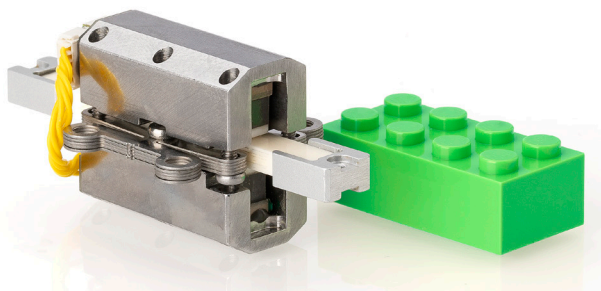




## Acuvi LEGS<sup>®</sup> LT40D Piezo Linear Actuator



### Key features

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

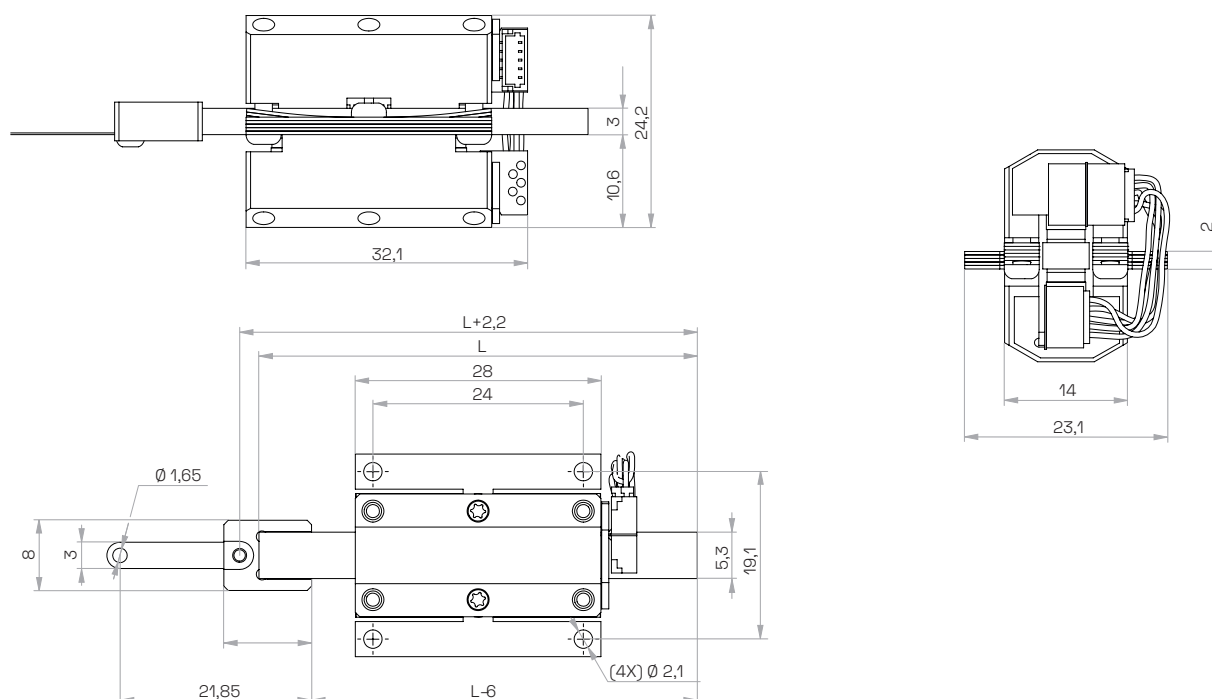
### Product Description

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 output 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 general environments (A), Vacuum version (C) and Non-magnetic vacuum version (D). Each version is offered with M1 or M2 mounting.

### Product Dimensions (mm)



## Acuvi LEGS® LT40D Piezo Linear Actuator Specifications

| TYPE                                | NON-MAGNETIC, VACUUM (D) |
|-------------------------------------|--------------------------|
| Maximum stroke                      | 67 mm                    |
| Maximum speed (driver dependent)    | 12 mm/s                  |
| Minimum speed (driver dependent)    | 1 nm/s                   |
| Max operating frequency             | 3 kHz                    |
| Minimal incremental motion          | 0.5 nm                   |
| Stall force                         | 40 N                     |
| Holding force                       | >40 N                    |
| Vacuum                              | 10 <sup>-7</sup> torr    |
| Non-magnetic                        | Yes                      |
| Operating voltage                   | 42-48 V                  |
| Power consumption                   | 20 mW/Hz                 |
| Mechanical size L x H x D           | 32.1 x 24.2 x 23.1 mm    |
| Weight with 50 mm drive rod         | 61 g                     |
| Material in motor housing           | Arcap                    |
| Operating temperature (recommended) | -20 to +70°C             |
| Storage temperature                 | -50 to 85°C              |

All specifications are subject to change without notice. Latest data sheets are available on [acuvi.com](http://acuvi.com)

## 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

## Accessories

Starter Kit PMD401 controller, motor cables, USB-to-RS485 cable, and power supply  
Piezo Drive lab software downloadable from [acuvi.com](http://acuvi.com)

