

# Acuvi LEGS® LL10D Piezo Linear Actuator



#### **Key features**

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

#### **Product Description**

The LL10D linear motor is designed to cater to a diverse range of OEM applications, with a specific focus on achieving precise positioning in environments that necessitate a completely non-magnetic and/or vacuum-compatible motor.

The direct drive principle of the Piezo LEGS

ensures motion without any mechanical play or backlash. Sub-micrometer movement is effortlessly accomplished by this exceptionally compact and robust motor. It effectively replaces stepper motor assemblies when enhanced resolution and smooth linear movement are required.

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### **Product Dimensions**



SWEDEN Stationsgatan 23 SE-753 40 Uppsala USA 4215 Pleasent Rd Fort Mill, SC 29708

## Acuvi LEGS<sup>®</sup> Linear LL10D specifications

TYPE	NON-MAGNETIC, VACUUM (D)
Maximum stroke	74.5 mm
Maximum speed (driver dependent)	15 mm/s
Minimum speed (driver dependent)	1 nm/s
Max operating frequency	3 kHz
Minimal incremental motion	0.5 nm
Stall force	6.5 N
Holding force	7 N
Vacuum	10-7
Non-magnetic	Yes
Operating voltage	42-48 V
Power consumption	5 mW/Hz
Mechanical size L x H x D with guides and encoder	22 x 19.3 x 10.8 mm
Weight with 50 mm drive rod	23 g
Material in motor housing	Non-Magnetic
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 for download at acuvi.com

### Controllers

PMD301	1-sxis 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

