

A piezo actuator assembly, labeled "Piezo LECS" and "11402033", is shown. It consists of a black metal housing with a central rectangular opening. A white piezoelectric actuator is mounted within this opening. A yellow cylindrical component is attached to the right end of the actuator. The assembly is secured with screws.

- Integrated encoder and guiding
- >6.5 N force
- Sub nanometer precision
- Direct drive and no backlash
- No power draw in hold position
- Unparalleled size to force ratio

The selectable drive rod lengths enable adaptability to diverse application scenarios. The motor's seamless integration will likely simplify and minimize the overall system size.

[illegible]

Type	Standard
Maximum stroke	74.1 mm
Speed range @ Rhomb, no load, 20°C	0.1nm/s - 20mm/s (check driver)
Step length, full step @ Delta, no load, 20°C	4.5 µm (see chart on piezomotor.com)
Maximum speed (driver and waveform dependent)	20 mm/s
Minimum speed	One full step in 12h
Max operating frequency (driver dependent)	2.5 kHz
Movement resolution	<1nm
Stall force	6.5 N
Holding force	>6.5 N
Vacuum	No
Non-magnetic	No
Operating voltage	0-48 V (proprietary waveform)
Power consumption	5 mW/Hz
Mechanical size L x H x D with guides and encoder	23.4 x 19.6 x 10.5 mm
Mechanical size L x H x D without guides and encoder	17 x 19.6 x 10.5 mm
Weight with 50 mm drive rod	16 g
Material in motor housing	Stainless steel
Operating temperature (recommended)	-20 to +70°C
Storage temperature	-20 to +70°C
Built in encoder (not available with 30 mm drive rod)	Yes, optional
Encoder resolution (encoder E1)	1.25 µm
Encoder resolution (encoder E2)	0.08 µm
Connector motor (motor side)	Hirose DF52-5S-0.8H
Connector encoder (motor side)	Hirose DF52-6S-0.8H
Control	Open Loop or Closed loop
Lifetime (km)	11km (at half load, room condition, 600Hz)
Index	up to 2 per full stroke
Max. acceleration	800Hz/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

Starter Kit

PMD401 controller, motor cables, USB-to-RS485 cable, and power supply

Piezo Drive lab software downloadable from piezomotor.com

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

piezomotor.com



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