



C-Series Contracting HASEL Actuator

C-5020-15-05-C-ACAC-50-140

Key Metrics

Actuation Type	Contracting
Series	C-Series
Model Number	C-5020
Part Number	C-5020-15-05-C-ACAC-50-140
Actuator Stack Quantity	5
Pouches Per Actuator	15
Mounting	Thin symmetric mounts
Weight	185g
Voltage Range	2kV – 8kV
Blocking Force	150N (@8kV, <1% Strain)
Free Stroke	18mm (@8kV)
Typical Lifetime	$10^4 - 10^6$ cycles

Available Accessories

- High voltage power supply
- Standalone control software
- Acrylic mounting stand
- 200g demonstration weight

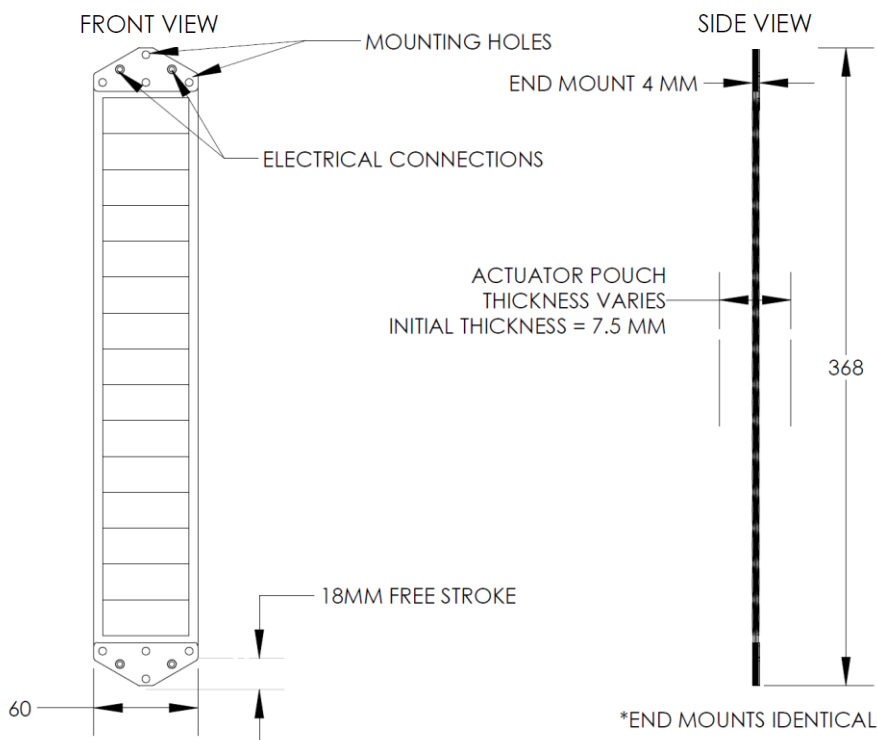


Features

- Electrically controlled
- Direct linear analog motion
- Soft, compliant structure
- High bandwidth
- Intelligent self-sensing
- Cost-effective materials
- Silent operation
- Fast actuation speeds
- Compact size
- Lightweight and portable
- Modular
- Easily customizable

Customizable Characteristics: Actuator stack quantity (force), pouches per actuator (stroke), pouch dimensions, actuator dimensions, mounting, encapsulation

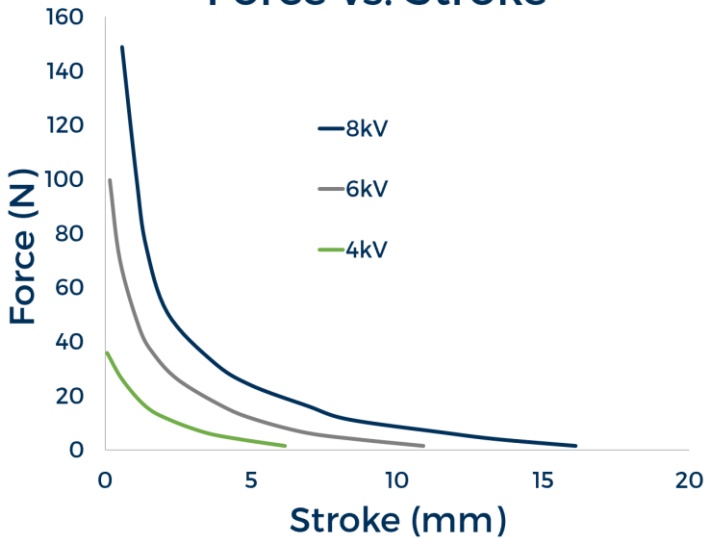
HASEL actuators are the first linear contracting actuators to operate using electrohydraulic principles. Designed and manufactured in Boulder, Colorado, HASEL actuators are used in multiple industries including **automotive, industrial automation, medical devices, aerospace, and defense.**



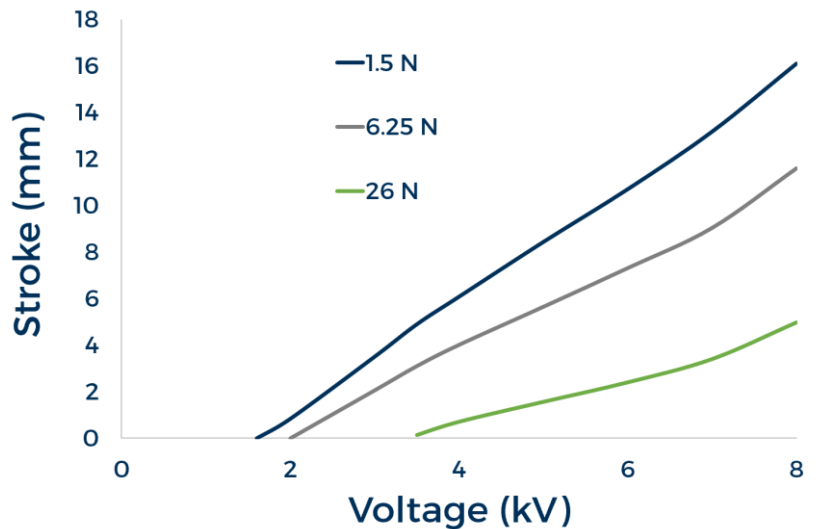
A stack of linearly contracting C-5020 actuators is held together with 5x M4 plastic bolts and 2x brass threaded rods. The threaded rods provide a means for external electrical connections. The number of actuators within the stack can be varied to suit the desired size or performance characteristics.

Typical Performance

Force vs. Stroke



Stroke vs. Voltage



Actuator **force** and **stroke** are controllable through input **voltage**.

Artimus Robotics specializes in engineering actuators and systems for challenging applications. Not sure if it's a fit for you? Fill out our [Application Assistant](#) so our engineers can evaluate and recommend a custom solution.

The information presented in this document is based on test results using custom electronics. It is believed to be accurate and reliable, but application conditions may adversely affect performance and lifetime. It is the responsibility of the user to determine suitability of the product for intended use.

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