

# ACTUONIX - LAC DRIVE BOARD

LAC  
Control board

- Designed for Actuonix 'P' actuators
- PC software via USB connection
- RC servo compatible
- 6 to 24V dc actuators



## PRODUCT DESCRIPTION

The Linear Actuator Control Board is a stand-alone, closed-loop control board specifically designed for Actuonix P-series micro linear actuators. The LAC simplifies designs by saving the development time, cost and processor overhead associated with direct motor control. As little as 1 digital or analog output is required for position control. Supported input signals include USB, voltage, current, RC servo and PWM. On-board adjustment of speed, sensitivity and stroke limits are available.

This linear actuator controller can be operated as both an interface board or as a stand alone controller with the addition of an external potentiometer and power supply. Each LAC board controls 1 linear actuator and will require an external power supply rated for the actuator.

The LAC is compatible with all P-series micro linear actuator on this site. A 6 volt or 12 volt power supply is required for operation.

## TECHNICAL DATA

Duty cycle	20 %
IP class	IP00
Temperature operational max	50 °C
Temperature operational min	-10 °C

### External Connections Detail

#### X1 P012 actuator connector

5 pin, 1 mm Pitch JPC connector

#### X2 L12-P/L16-P/P16-P/T16-P actuator connector

- Pin Function
- Potentiometer Reference Negative (yellow)
  - Motor Terminal (black)
  - Motor Terminal (red)
  - Potentiometer Feedback (purple)
  - Potentiometer Reference Positive (orange)

#### X3 Radio control receiver connector

- Pin Function
- Ground (black)
  - Power (red)
  - Control (white)

#### X4 Large actuator connector

- Pin Function
- Potentiometer Reference Positive (white)
  - Potentiometer Feedback (purple)
  - Motor Terminal (red)
  - Motor Terminal (black)
  - Potentiometer Reference Negative (blue)
- NOTE: If the actuator moves in one end then stops, swap pins 3 and 4 to change the motor direction.

#### X5 Universal Serial Bus (Male Mini-B)

- Pin Function
- NC
  - Data
  - Data
  - NC
  - Ground

#### X6 Control interface

- Pin Function
- Ground
  - 6-24 VDC Power
  - RC / Hobby Servo Input signal
  - Current Input signal (0-20 mA)
  - Voltage Input signal (0-3.3 V) or 1 kHz PWM

#### P1 Speed Control

Set maximum actuator speed

CW - Faster

CCW - Slower

#### P2 Limit Controls

Left Potentiometer controls Retract Limit

CW - Maximum Stroke

CCW - Minimum Stroke

Right Potentiometer controls Extend Limit

CW - Maximum Stroke

CCW - Minimum Stroke

P3 Sensitivity adjustment

CW - Smaller dead band

CCW - Larger dead band



Connector Pin Numbers (from Top to Bottom or Left to Right)