

# 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 IPC connector

#### X2 112-P/116-P/116-P/116-P

4-pin connector

- Pin Functions:
- 1 Potentiometer Reference Negative (yellow)
  - 2 Motor Terminal (black)
  - 3 Motor Terminal (red)
  - 4 Potentiometer Feedback (purple)
  - 5 Potentiometer Reference Positive (orange)

#### X3 Radio control receiver connector

- Pin Functions:
- 1 Ground (black)
  - 2 Power (red)
  - 3 Control (white)

#### X4 Large actuator connector

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

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

- Pin Functions:
- 1 NC
  - 2 Data
  - 3 Data
  - 4 NC
  - 5 Ground

#### X6 Control interface

- Pin Functions:
- 1 Ground
  - 2 6-24 VDC Power
  - 3 RC / Hobby Servo Input Signal
  - 4 Current sense signal (0-20 mA)
  - 5 Voltage input signal (0-3.3 V) or 1 kHz PWM

#### F1 Speed Control

Sets maximum actuator speed

- Control:
- CW Forward
  - CCW Reverse

#### F2 Limit Controls

- Left Potentiometer controls Retard Limit
- CW Maximum Stroke
  - CCW Potentiometer controls Extend Limit
  - CW Maximum Stroke
  - CCW Sensitivity adjustment
  - CW Smaller dead band
  - CCW Larger dead band



Connector pin numbers from top to bottom or left to right