[Linear Actuator L12-50-100-06-R](#)

Product Description

The L12 Linear Actuator is an axial design with a powerful drivetrain and a rectangular cross section for increased rigidity.

The L12 actuator is designed to move push or pull loads along its full stroke length. The speed of travel is determined by the gearing of the actuator and the load or force the actuator is working against at a given point in time. When power is removed, the actuator stops moving and holds its position, unless the applied load exceeds the backdrive force, in which case the actuator will backdrive. Stalling the actuator under power for short periods of time (several seconds) will not damage the actuator.

The linear actuator is an alternative to designing with gears, motors, servos and linkages. The controller sees the actuator as a standard RD servo.

Product Specifications

Motor Properties

Motor Type	RC Linear Actuator (Servo)
Stroke Length	50 mm
Maximum Speed	12 mm/s
Peak Power Point	(@ 6 mm/s) 23 N
Peak Efficiency Point	(@ 6 mm/s) 12 N
Gear Ratio	100:1
Positional Error Max	200 ?m

Electrical Properties

Rated Voltage	6 V DC
Rated Current (on 1061 controller)	50 mA
Rated Current (on 1066 controller)	83 mA

Stall Current (on 1061 controller)	450 mA
Stall Current (on 1066 controller)	450 mA

Physical Properties

Gear Train Material	Metal
Backdrive Force	80 N
Side Force Max	30 N
Weight	40 g
Operating Temperature Min	-10 °C
Operating Temperature Max	50 °C

Comes packaged with

- Two mounting clamps

- Two mounting brackets

- Two rod end options: a clevis end and a threaded end with nut

Controllers

The 3451 can be used with the following Phidgets servo controllers:

- 1000 – PhidgetServo 1-Motor

- 1061 – PhidgetAdvancedServo 8-Motor

- 1066 – PhidgetAdvancedServo 1-Motor

When controlling the device, set the speed to the maximum speed. Trying to vary the speed will produce erratic results.

Resources

- Firgelli F-12 Data Sheet