



Craig Kackert
**Design
 Tech., Inc.**
 805-522-3750 USA

MINI LINEAR ACTUATORS

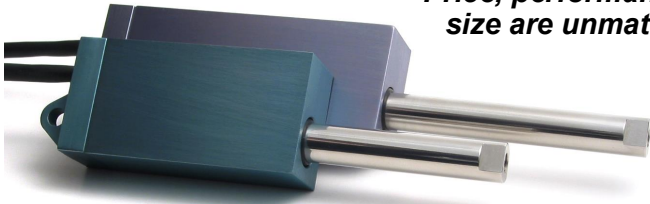
L16-SERIES 2" & 3" STROKE

6 to 200+ Lbf LOADS

Potentiometer Feedback & Limit Switched Options

Passed FAA Applications
 requiring STC Rating.

*Price, performance and
 size are unmatched!*



Applications

R.O.V.s, U.A.V.s., R.P.Vs.
 Industrial Motion
 Special Effects
 Aerospace/FAA
 Robotics / A.I.
 Animatronics

Features

Core-less DC Motors
 Planetary Gear Head
 Powerful Package
 Very Small Outline
 RC Plug & Play
 Proven Design

Our L16's & W70/90 Series Actuators are #1 picks for U.A.V's. & Animatronics.

These Professional Linear Actuators combine power and speed in a rugged miniature precision package never seen before.

Designed for robotics and aerospace applications these precision actuators are built with the best components available.

Our custom Core-less DC motors with planetary gear-heads, linear feedback potentiometer, and mil spec components gives them unmatched performance. The lead screw, drive gears, rod, dual bearings, and hardware are all Stainless Steel.

To operate directly with an RC Hobby Radio Signal (PCM) or an 0-5V position signal, order with a potentiometer, and use our "S6PWM" Servo Motor Controllers for a true "Plug & Play System". Factory tested and ready for you to use!

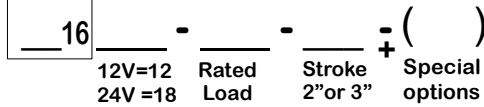
Load / Speed Chart
 L1618 @ 26VDC

Load (lbs)	Speed
Rated	Max f "/Sec
6*	20+ 6
10*	25+ 4
12	50+ 3
16	65+ 2.7
20	60+ 2.0
30*	125+ 1.6
40	220+ 0.7
50	230+ 0.55
65	240+ 0.56
75	250+ 0.5
100	360+ 0.35
200	600+ 0.12

* = Actuator back-drivable
 Speed is at Rated Load
 50% Duty Cycle @ 25°C
 90% D/C @ 5% load

Ordering Information

L16 = Potentiometer only.
 SL16 = Limit Switch only.
 LB16 = Potentiometer and Switches



Special Options:

- Standard Plug, Conxall P/N 6280-6PG (C)
- Mil Spec Plug P/N MS3116F10-6P (+M)
- Mil Spec Plug & (Wire MIL-W-16878) (+MW)
- Harsh Environment Protection (+H)
- Extended Temp Range -50° / 100°C (+ET)
- Rear Clevis Options: (+XX)

Plugs into our Servo Motor Controllers.

- (+M) [C] Pin #'s
 Standard CK Cable (B) [1] Motor (+) 22awg wht/red
 "Super Flex" (C) [2] Motor (-) 22awg wht/blk
 Insulation: (D) [3] Pot. Low* 22awg wht/blk
 PVC per MIL-W-76B 105°C (E) [4] Pot. wiper* 22awg wht
 Cable Jacket: (F) [5] Pot. high* 22awg wht/red
 Blk. Alcryn, -40°C/+107°C (A) [6] * Shield Braid. Open end in Case

L16 Specifications

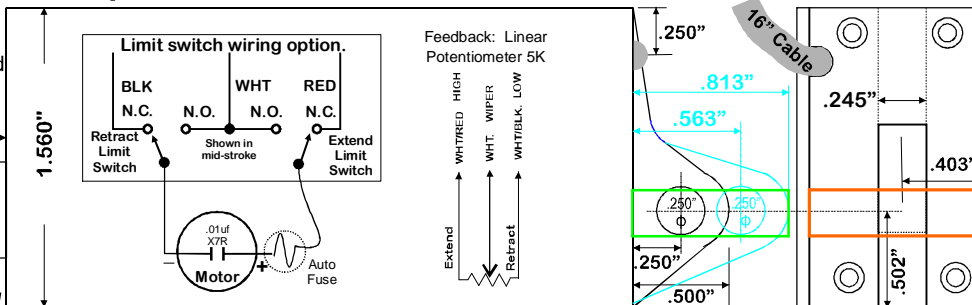
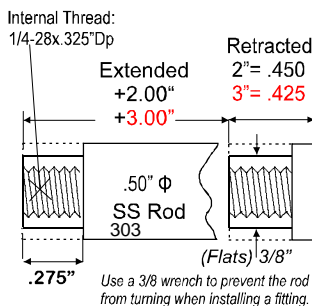
Rev. A

L1612 Volts / Amps	13.5-16.5vdc / 3.2A max.
Current/V @ Rated Load	1.4A Typ. / 14.2vdc
L1618 Volts / Amps	24-28vdc / 2.2A max.
Current/V @ Rated Load	.7A Typ. / 26vdc
Strokes	2.0" or 3.0" Max ±5%
2" Stroke Body-Dims.	3.265"x 1.56"x 0.952"
Weight	7.5 oz
3" Stroke Body-Dims.	4.23"x 1.56"x 0.952"
Weight	8.8 oz
Load, Speed, Duty Cycle	See Chart
End Play	0.002" Typ. .006" Max.
Static Load	400 lbf
Std. Temp. Range	-20°/85°C (or ET)
Case	6061-T6 Anodize Finish
Drive	Custom Acme
Linear Potentiometer	5K .25%Lin. 10M+ Cycle.
Limit Switches	Honeywell (Mil 8805)

Notes: The L1612 Series replaced the L1609 Series.
 The loads & speeds are not listed here.

Duty Cycle = $\frac{\text{Time on}}{\text{time on} + \text{time off}}$
 200 lbf in 3" Stroke only

Body L: 2" Stroke = 3.265" 3" Stroke = 4.230"



Rear Clevis
 P/N Options:
 N/A = Standard

- +9 = 90°
- +E = Extended
- +9E = 90° Extended
- +B = Ball End*
- +9B = 90° Ball End*

*Ball Ends have .1875" bore and are not shown.

Each actuator is fully factory tested and load cycled. Certs are available upon request.

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