

# Optical Feedback Linear Actuator



Optical Feedback Linear Actuators are equipped with an optical encoder that provides single phase pulses as positioning feedback. The feedback signal can be input into an external controller like Arduino for extremely accurate and reliable positional control. These actuators come in three force options ranging from 35 - 400 lbs and with stroke lengths from 1 - 30 inches. Equipped with built-in limit switches and manufactured with high grade aluminum, the OS Series provides precision performance for any automation project requiring feedback control.

## Standard Features and Benefits

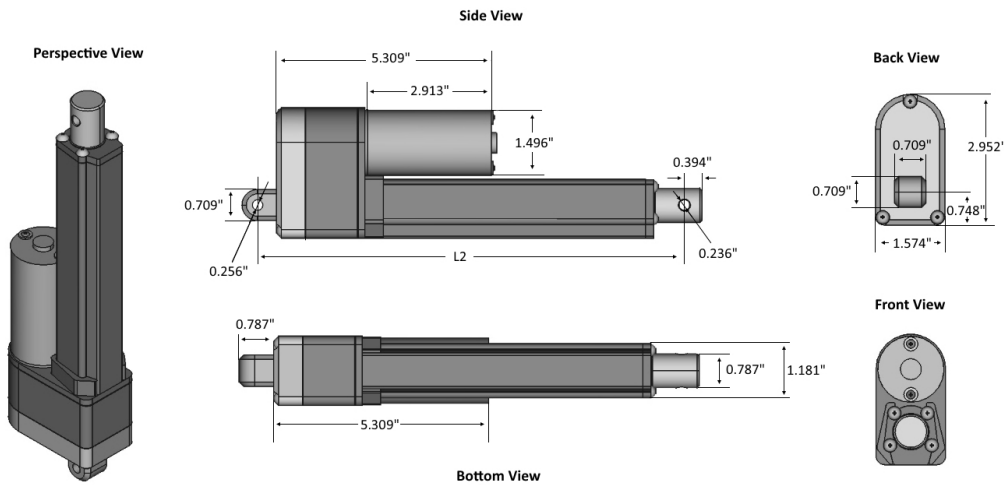
- **Internal limit switches** automatically shut off the unit at the end of stroke
- **Standard stroke lengths** of 1, 3, 6, 9, 12, 18, 24 and 30 inches are available
- **35 lbs. of force** at an extension speed of 2.0 inches per second, **200 lbs. and 400 lbs. of force** at an extension speed of 0.30 inches per second
- **IP 66 rated** - dust proof and water resistant
- **Temperature operating range** of -15°F to 150°F ( -26°C to 65°C)
- **High grade aluminum housing** resists corrosion
- Equipped with **10 hole optical encoder** which generates 50 pulses/inch of stroke for 35 lb. unit and 100 pulses/inch of stroke for 200 and 400 lb. units (+/- 5 pulses)
- Position feedback signal can be input into external controller such as **Arduino**
- **Maintenance free**
- **CE and RoHS certified**

## Specifications

Model	FA-OS-35-12-X	FA-OS-240-12-X	FA-OS-400-12-X
Dynamic Force	35 lb	200 lb	400 lb
Static Force	200 lb	500 lb	800 lb
Speed (inches/second)	2.0 inches	0.3 inches	0.3 inches
Duty Cycle	25%		
Stroke Length	1, 3, 6, 9, 12, 18, 24 and 30 inches		
IP Rating	66		
Input	12 volt DC		
Max Draw	5 A		
Clevis End	1/4" diameter		
Operational Temperature	-15°F to 150°F (-26°C to 65°C)		
Limit Switch	Built-in (factory preset)		
Safety Certifications	CE, RoHS		
Brackets	MB1-P		

## Dimensions and Weight

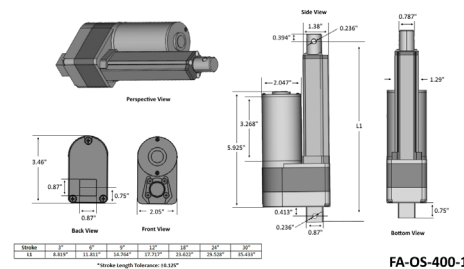
Stroke	Retracted Length	Extended Length	Weight
1 "	5.53 "	6.53 "	1.60 lbs
2 "	6.53 "	8.53 "	1.68 lbs
3 "	7.53 "	10.53 "	1.84 lbs
4 "	8.53 "	12.53 "	1.92 lbs
6 "	10.53 "	16.53 "	2.12 lbs
9 "	13.53 "	22.53 "	2.48 lbs
12 "	16.53 "	28.53 "	2.78 lbs
18 "	22.53 "	40.53 "	3.40 lbs
24 "	28.53 "	52.53 "	4.02 lbs
30 "	34.53 "	64.53 "	4.68 lbs



Stroke	1"	3"	4"	6"	9"	12"	18"	24"	30"
L2	6.417"	8.819"	9.646"	11.614"	14.547"	17.520"	23.425"	29.331"	35.236"

\*Stroke Length Tolerance:  $\pm 0.125$ "

FA-OS-35-12  
FA-OS-240-12



FA-OS-400-12

## Performance Graphs

