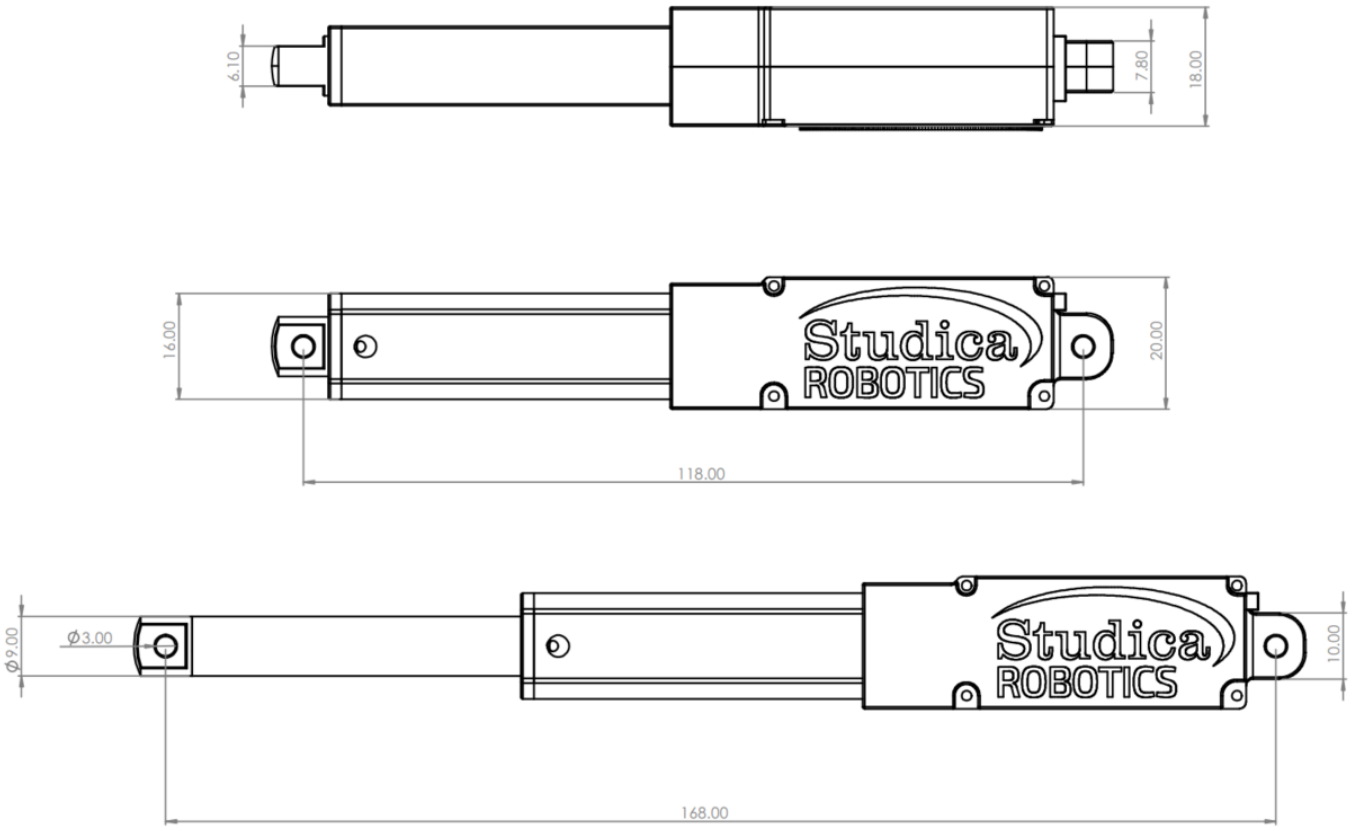
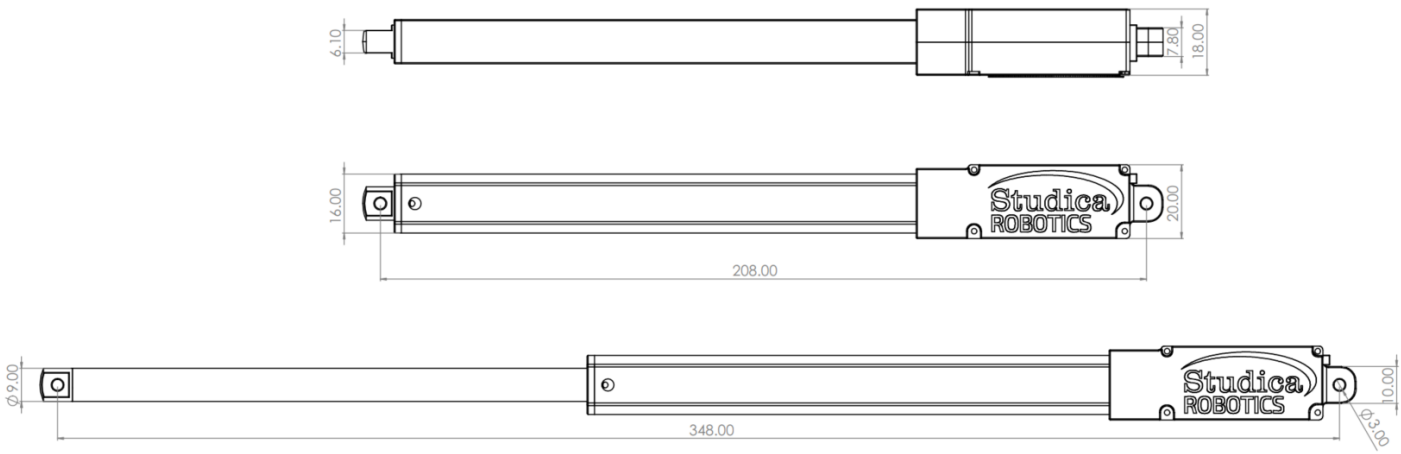
Servo Linear RC Actuators

Part #		75010 50S-95N	75011 50S-190N	75012 50S-40N	75013 140S-95N	75014 140N-190N	75015 140S-40N
Control Signal		PWM	PWM	PWM	PWM	PWM	PWM
Frequency (Hz)		50	50	50	50	50	50
Voltage (VDC)		6	6	6	6	6	6
Stroke Length (mm)		50	50	50	140	140	140
Gear Ratio		63:1	150:1	36:1	63:1	150:1	36:1
No Load	Speed (mm/s)	13	6	24	13	6	24
	Current (mA)	150	150	150	150	150	150
Max Efficiency Point	Load (N)	30	75	16	30	75	16
	Speed (mm/s)	11	5	20	11	5	20
	Current (mA)	360	360	360	360	360	360
Peak Power Point	Load (N)	66	170	30	66	170	30
	Speed (mm/s)	8	3.3	17	8	3.3	17
	Current (mA)	560	560	560	560	560	560
Max Force	Load (N)	95	190	40	95	190	40
	Speed (mm/s)	5	2.5	14	5	2.5	14
	Current (mA)	850	820	620	850	820	620
Stall Torque (N)		150	325	50	150	325	50
Stall Current (A)		1	1	1	1	1	1
Max Static Force (N)		100	190	40	100	190	40
Weight (g)		65	65	65	96	96	96
Stroke Repeatability (mm)		±0.5					
Max Side Load (N)		10					
Operating Temperature Range (˚C)		-10 ~+50					
Storage Temperature Range (˚C)		-10 ~+50					
Wire Length (mm)		340					
Connector		2.54mm Dupont 3-Pin Female					

50mm Stroke Length Drawing

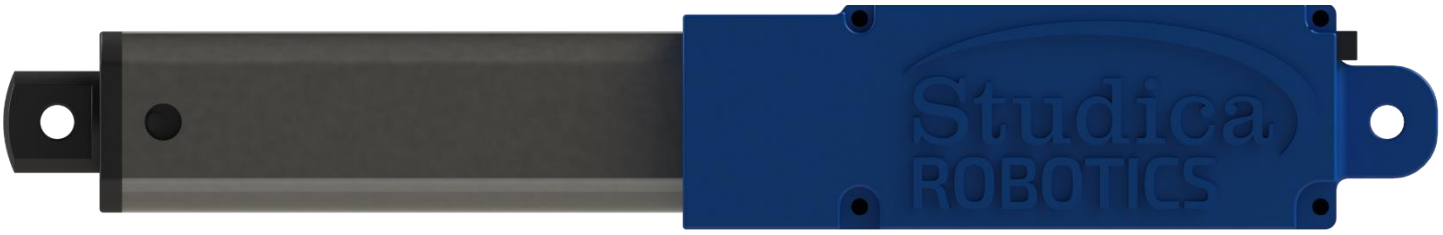


140mm Stroke Length Drawing



Pulse Width Range

The linear servos have a different pulse width range than that of normal servos. The range of a normal servo is generally 500µs. to 2500µs. The linear servo has a standard range of 900µs to 2100µs. However, due to tolerances in control, this range generally needs to be manually calibrated per linear servo.



At full retraction, the pulse width should be around 900µs. Observational measurements have found this value to be between 850µs and 1000µs.

At full extension, the pulse width should be around 2100µs. Observational measurements have found this value to be between 1890µs and 2150µs.