

Product Data Sheet



Standard Features:

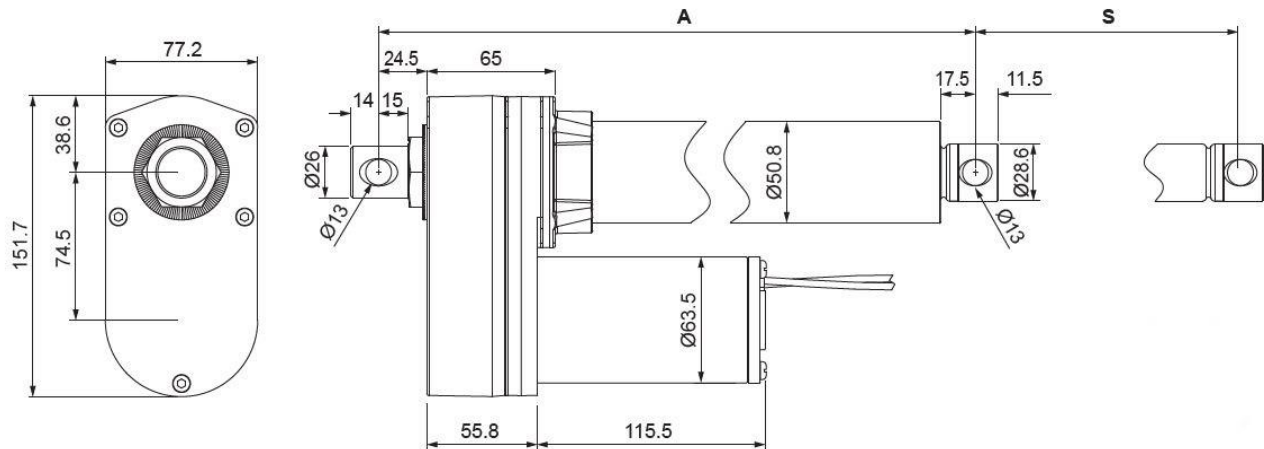
- Carbon steel frame with 304 stainless steel extension tube
 - Aluminum gearbox housing
- Stroke lengths: 4", 6", 8", 10", 12", 18", 24", [other stroke lengths available]
- Input voltage: 12VDC, 24VDC, (48VDC – Special Order)
- Standard gear ratio: 20:1 [other ratios available]
- Dynamic load range: 562 lbs. [2,500 Newtons] -to- 1,574 lbs. [7,000 Newtons]
- Maximum static load: 3,057 lbs. [13,600 Newtons]
- Maximum current draw (at full load): 11.0 -to- 26.4 Amps @ 12 VDC
- Speed at no load: 0.33 in/sec [8.4 mm/sec] -to- 2.84 in/sec [72.1 mm/sec]
- Speed at full load: 0.29 in/sec [7.4 mm/sec] -to- 2.26 in/sec [57.5 mm/sec]
- Overload clutch
- Ball screw drive
- Mounting hole diameter (both ends): 1/2" [13mm]
- Duty cycle: 25% or 2 min continuous operation in 8 min.
- Working temperature: -13F [-25C] to +149F [+65C]
- IP rating: IP65, (IP69K – Special Order)
- Certified: CE marking, EMC Directive 2014/30/EU

Accessories:

- Mounting brackets
- Direction reversing switches
- Direction reversing relays
- Direction reversing wireless controllers

Dimensions

Standard (without Limit Switches or Potentiometer)

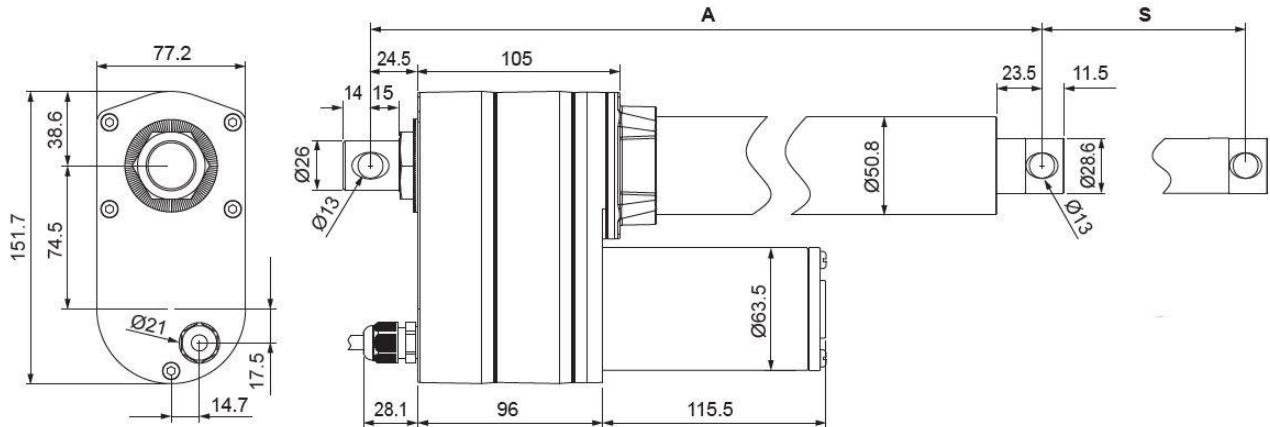


Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	11.9	302	13.9	353	15.9	404	17.9	455	19.9	506	28.9	735	35.0	888
Extended Length	15.9	404	19.9	506	23.9	607	27.9	709	31.9	811	46.9	1192	59.0	1498

Tolerance: ±5mm

Dimensions

With Potentiometer Only

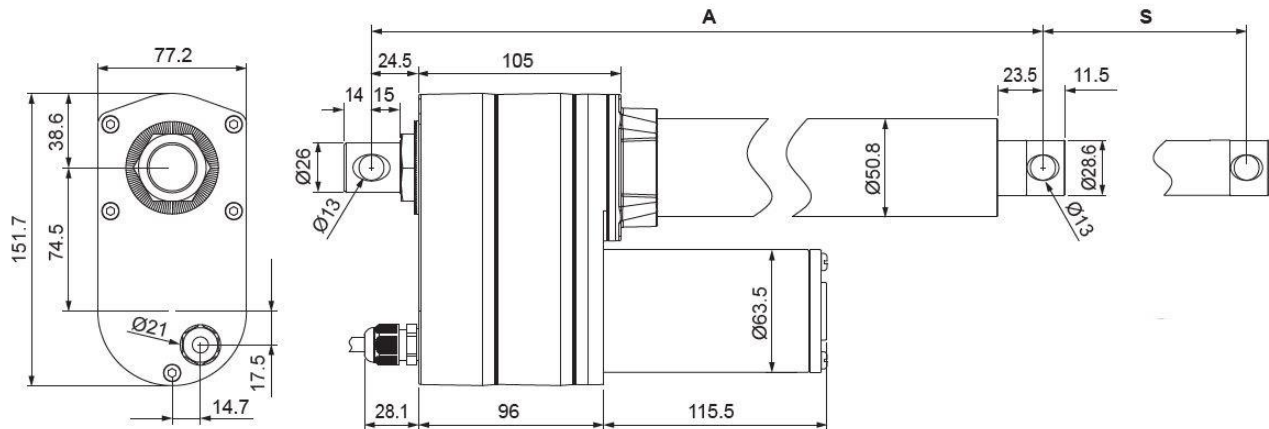


Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	13.5	342	15.5	393	17.5	444	19.5	495	21.5	546	30.5	775	36.5	928
Extended Length	17.5	444	21.5	546	25.5	647	29.5	749	33.5	851	48.5	1232	60.6	1538

Tolerance: ±5mm

Dimensions

With Only Limit Switches or Limit Switches and Potentiometer



Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	15.7	399	17.7	450	19.7	501	21.7	552	26.7	680	32.8	832	38.8	985
Extended Length	19.7	501	23.7	603	27.7	704	31.7	806	38.8	985	50.7	1289	62.8	1595

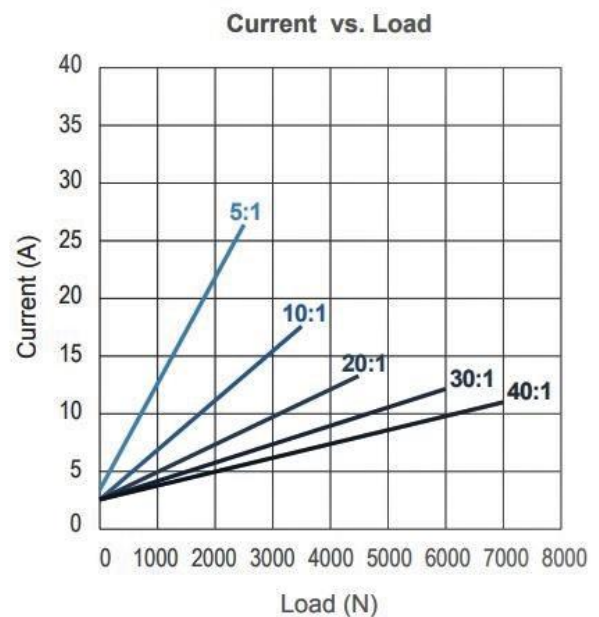
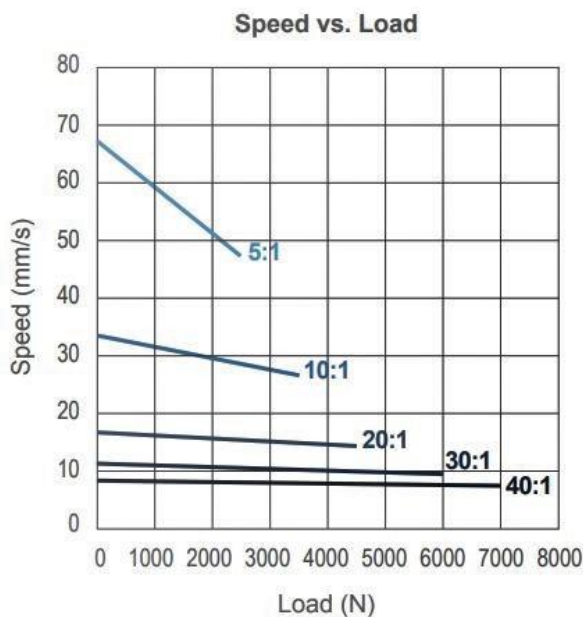
Tolerance: ±7mm

Performance Data

- 12V DC Motor

Gear Ratio	Max Load/Dynamic		Typical Speed/No Load		Typical Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
5:1	562	2500	2.64	67.1	1.86	47.2
10:1	787	3500	1.32	33.5	1.05	26.7
20:1	1012	4500	0.66	16.8	0.56	14.3
30:1	1349	6000	0.44	11.2	0.39	9.8
40:1	1574	7000	0.33	8.4	0.29	7.4

Gear Ratio	Typical Current (A)	
	No Load	Full Load
	12 VDC	12 VDC
5:1	3.4	26.4
10:1	2.6	17.6
20:1	2.6	13.2
30:1	2.6	12.1
40:1	2.6	11.0

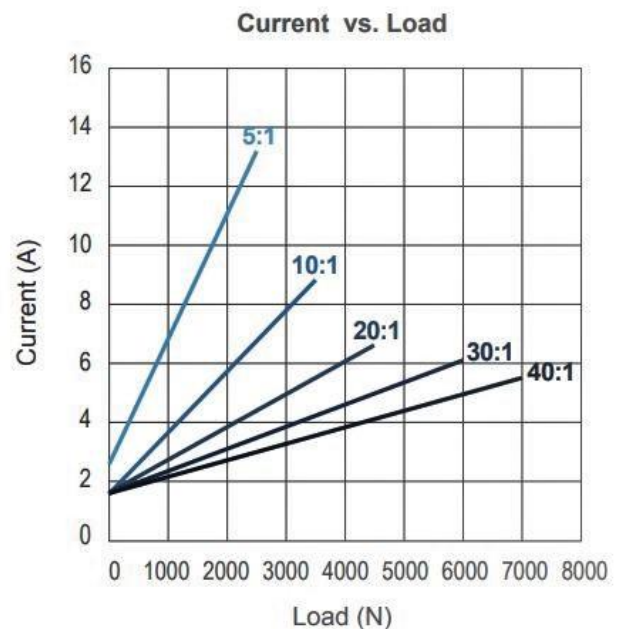
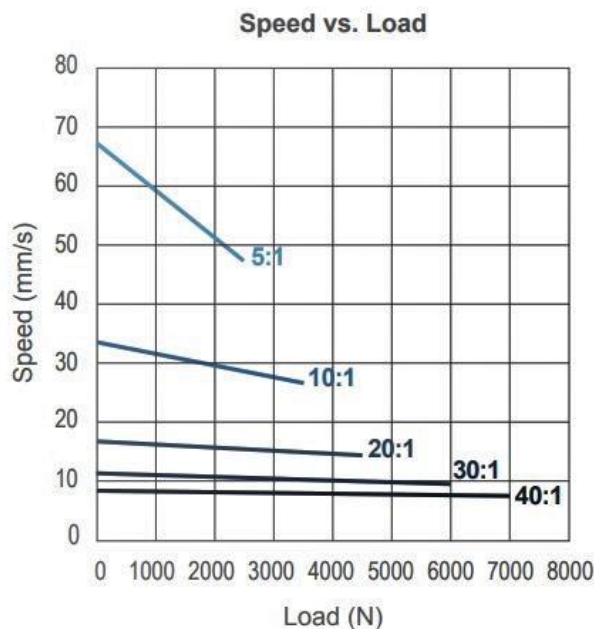


Note: The typical speed and typical current are the average values – not the upper or lower limit. The performance curves are made with typical values.

- **24V DC Motor**

Gear Ratio	Max Load/Dynamic		Typical Speed/No Load		Typical Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
5:1	562	2500	2.64	67.1	1.86	47.2
10:1	787	3500	1.32	33.5	1.05	26.7
20:1	1012	4500	0.66	16.8	0.56	14.3
30:1	1349	6000	0.44	11.2	0.39	9.8
40:1	1574	7000	0.33	8.4	0.29	7.4

Gear Ratio	Typical Current (A)	
	No Load	Full Load
	24 VDC	24 VDC
5:1	2.6	13.2
10:1	1.6	8.8
20:1	1.6	6.6
30:1	1.6	6.1
40:1	1.6	5.5

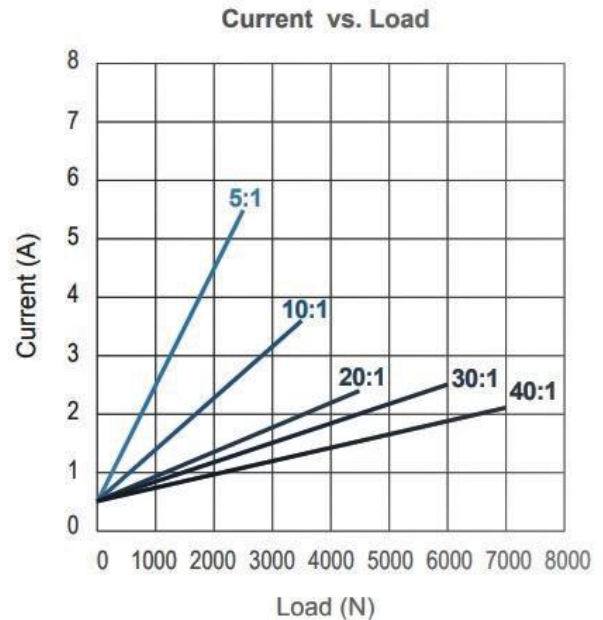
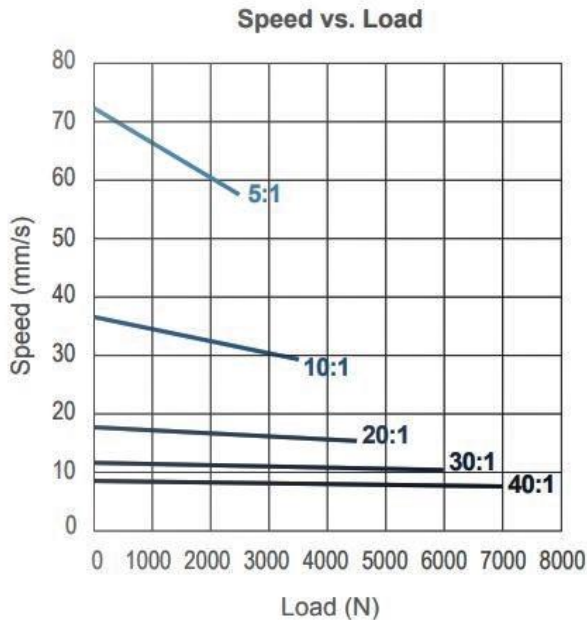


Note: The typical speed and typical current are the average values – not the upper or lower limit. The performance curves are made with typical values.

- **48V DC Motor**

Gear Ratio	Max Load/Dynamic		Typical Speed/No Load		Typical Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
5:1	562	2500	2.84	72.1	2.26	57.5
10:1	787	3500	1.44	36.5	1.15	29.1
20:1	1012	4500	0.70	17.8	0.60	15.3
30:1	1349	6000	0.46	11.7	0.41	10.3
40:1	1574	7000	0.34	8.6	0.31	7.8

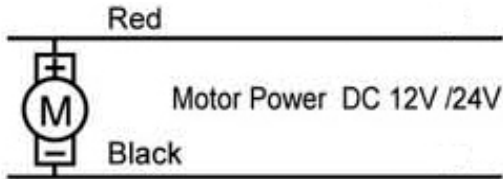
Gear Ratio	Typical Current (A)	
	No Load	Full Load
	48 VDC	48 VDC
5:1	0.5	5.5
10:1	0.5	3.6
20:1	0.5	2.4
30:1	0.5	2.5
40:1	0.5	2.1



Note: The typical speed and typical current are the average values – not the upper or lower limit. The performance curves are made with typical values.

Electrical

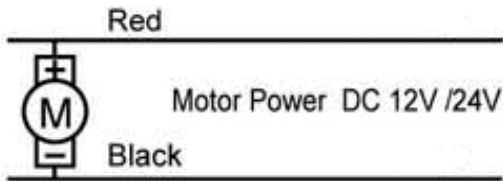
Standard



Gear Ratio: 5:1, 10:1, 20:1
 Red + // Black - : Extend
 Red - // Black + : Retract

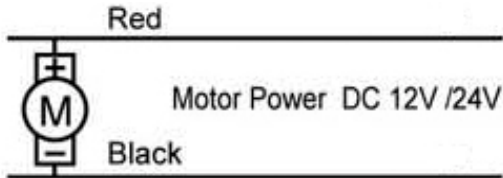
Gear Ratio: 30:1, 40:1
 Red + // Black - : Retract
 Red - // Black + : Extend

With Limit Switches



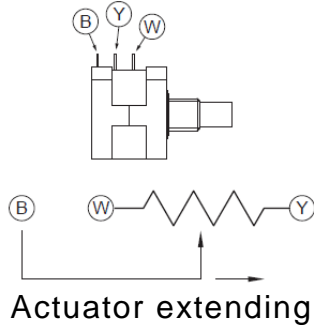
Gear Ratio: 5:1, 10:1, 20:1, 30:1, 40:1
 Red + // Black - : Extend
 Red - // Black + : Retract

**With Potentiometer
(or Limit Switches and Potentiometer)**



Gear Ratio: 5:1, 10:1, 20:1, 30:1, 40:1
 Red + // Black - : Extend
 Red - // Black + : Retract

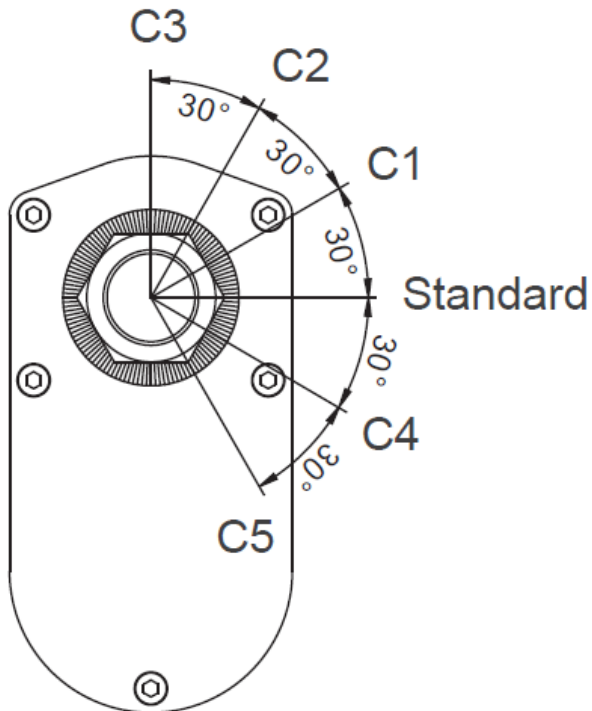
Potentiometer



When fully retracted, the potentiometer reading will be in or near the range of 0 - 600Ω (between the blue and the white wires).

When fully extended, the potentiometer reading will be in or near the range of 8K - 10KΩ (between the blue and the white wires).

Base Stud Mount Hole Orientation



Ordering Key

10 □ □ □ □ . □ - □

Drive Type

B : Ball Screw (1012 lbs. @ 20:1)

Input Voltage

12 : 12 VDC
24 : 24 VDC
48 : 48 VDC (available by special order)

Gear Ratio

05 : 5:1
10 : 10:1
20 : 20:1
30 : 30:1
40 : 40:1
 Not all gear ratios stocked

Stroke (nominal)

04 : 4" [102mm]
06 : 6" [153mm]
08 : 8" [203mm]
10 : 10" [254mm]
12 : 12" [305mm]
18 : 18" [457mm]
24 : 24" [610mm]
 Additional stroke lengths available

Options

0 : None
1 : Limit Switches
2 : Potentiometer
3 : Limit Switches and Potentiometer

IP Rating

<Blank> : IP65
69 : IP69K

- Not all combinations stocked

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