

## Product Data Sheet



### Standard Features:

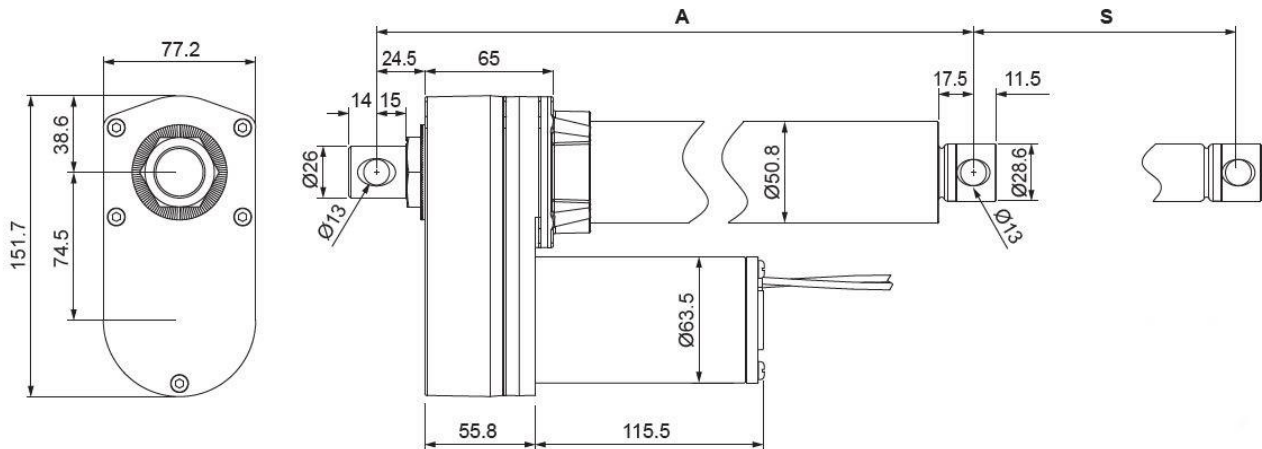
- Carbon steel frame with 304 stainless steel extension tube
  - Aluminum gearbox housing
- Stroke lengths: 4", 6", 8", 10", 12", 18", 24", [other stroke lengths available]
- Input voltage: 12VDC, 24VDC
- Standard gear ratio: 20:1 [other ratios available]
- Dynamic load range: 562 lbs. [2,500 Newtons] -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- 2.64 in/sec [67.1 mm/sec]
- Speed at full load: 0.29 in/sec [7.4 mm/sec] -to- 1.86 in/sec [47.2 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)



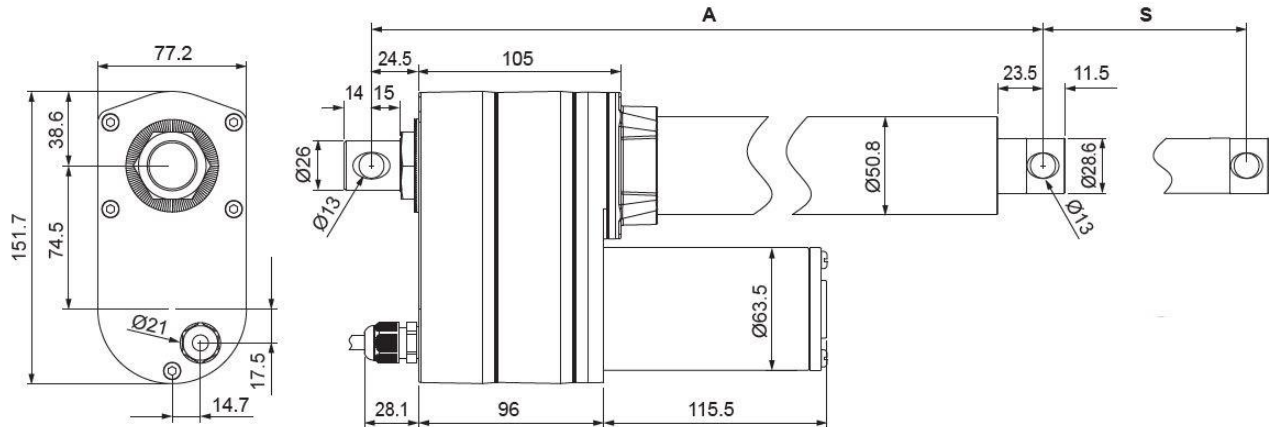
Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	11.9	302	13.9	353	15.9	404	17.9	455	19.9	506	28.9	735	35.0	888
Extended Length	15.9	404	19.9	506	23.9	607	27.9	709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

Stroke: +/- 0.1 in [2.5mm]

Retracted length: +/- 0.15 in [3.8mm]

## Dimensions

### With Potentiometer Only



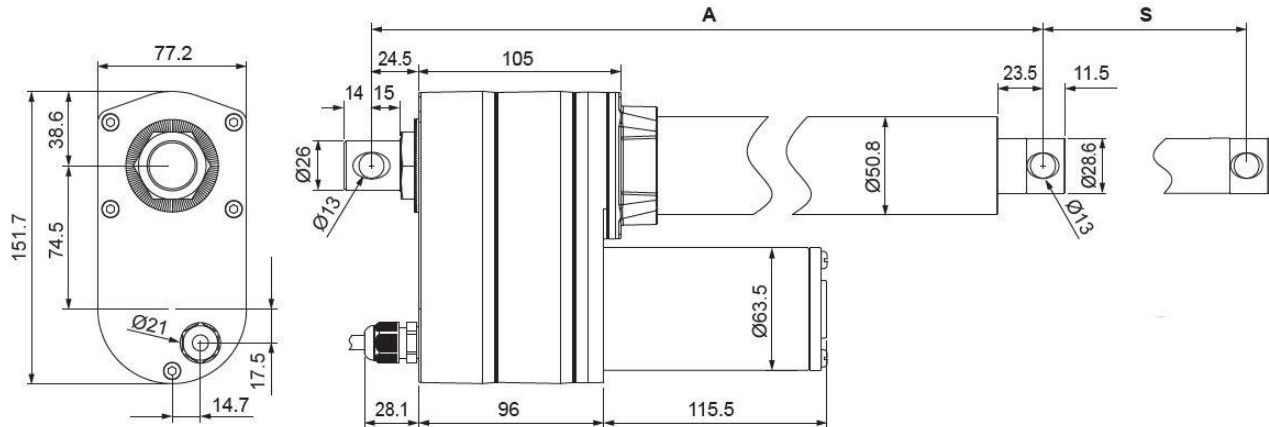
Nominal Stroke	4"		6"		8"		10"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.0	102	6.0	153	8.0	203	10.0	254	12.0	305	18.0	457	24.0	610
Retracted Length (A)	13.5	342	15.5	393	17.5	444	19.5	495	21.5	546	30.5	775	36.5	928
Extended Length	17.5	444	21.5	546	25.5	647	29.5	749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

Stroke: +/- 0.1 in [2.5mm]

Retracted length: +/- 0.15 in [3.8mm]

## 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

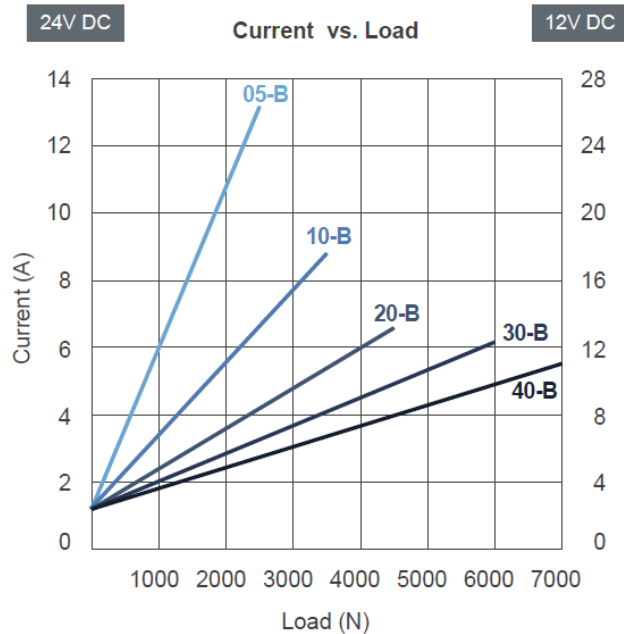
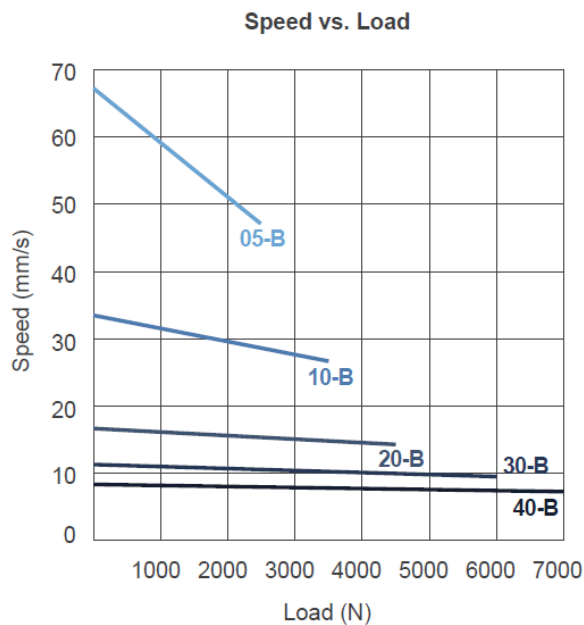
Stroke: +/- 0.1 in [2.5mm]

Retracted length: +/- 0.15 in [3.8mm]

**Performance Data**

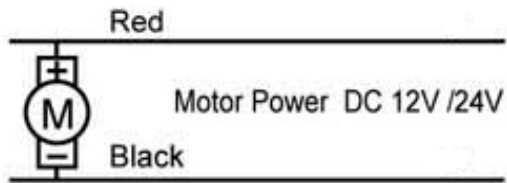
Gear Ratio	Max Load/Dynamic		Speed/No Load		Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
5:1	562	2500	2.64	67.1	1.86	47.2
10:1	787	3500	1.32	33.5	1.05	26.7
20:1	1012	4500	0.66	16.8	0.56	14.3
30:1	1349	6000	0.44	11.2	0.39	9.8
40:1	1574	7000	0.33	8.4	0.29	7.4

Gear Ratio	Typical Current (A)			
	No Load		Full Load	
	12 VDC	24 VDC	12 VDC	24 VDC
5:1	2.4	1.2	26.4	13.2
10:1	2.4	1.2	17.6	8.8
20:1	2.4	1.2	13.2	6.6
30:1	2.4	1.2	12.1	6.1
40:1	2.4	1.2	11.0	5.5



## Electrical

### Standard



Gear Ratio: 5:1, 10:1, 20:1

Red + // Black - : Extend

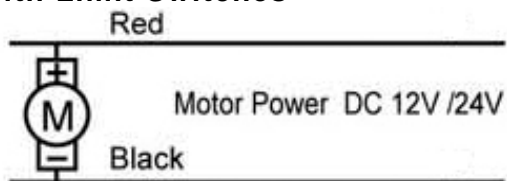
Red - // Black + : Retract

Gear Ratio: 30:1, 40:1

Red + // Black - : Retract

Red - // Black + : Extend

### With Limit Switches

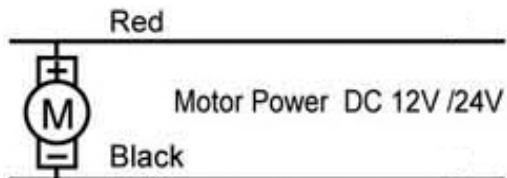


Gear Ratio: 5:1, 10:1, 20:1, 30:1, 40:1

Red + // Black - : Extend

Red - // Black + : Retract

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

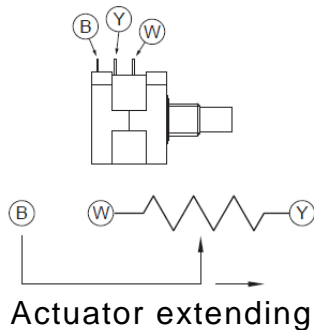


Gear Ratio: 5:1, 10:1, 20:1, 30:1, 40:1

Red + // Black - : Extend

Red - // Black + : Retract

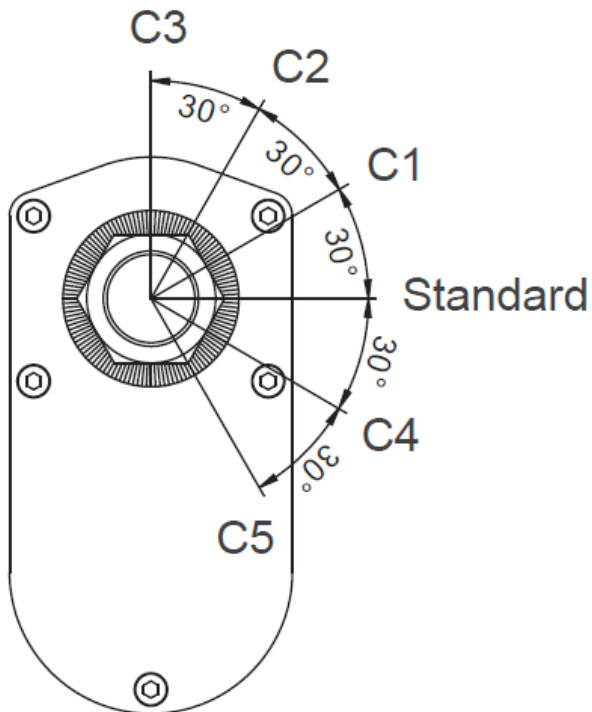
## Potentiometer



When fully retracted, the potentiometer reading will be in the range of 0 - 600 $\Omega$  (between the blue and the white wires).

When fully extended, the potentiometer reading will be in the range of 8K - 10K $\Omega$  (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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