

## Product Data Sheet



### Standard Features:

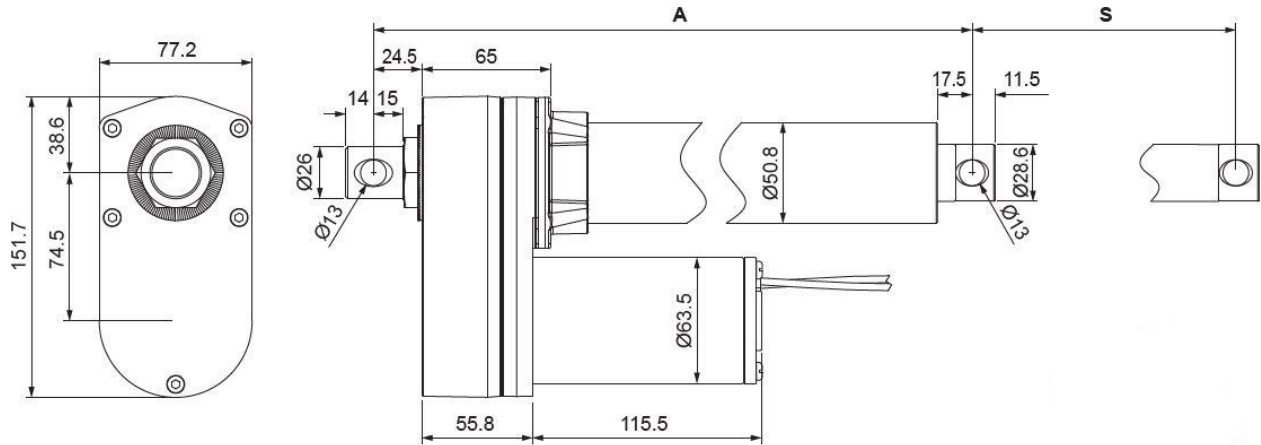
- Carbon steel frame and extension tube
  - Aluminum gearbox housing
- Stroke lengths: 4", 6", 8", 12", 18", 24", [other stroke lengths available]
- Input voltage: 12VDC, 24VDC
- Standard gear ratio: 20:1 [other ratios available]
- Dynamic load range: 337 lbs. [1,500 Newtons] -to- 787 lbs. [3,500 Newtons]
- Maximum static load: 1,012 lbs. [4,500 Newtons]
- Maximum current draw (at full load): 11.0 -to- 17.6 Amps @ 12 VDC
- Speed at no load: 0.33 in/sec [8.4 mm/sec] -to- 1.32 in/sec [33.5 mm/sec]
- Speed at full load: 0.29 in/sec [7.4 mm/sec] -to- 1.05 in/sec [26.7 mm/sec]
- Overload clutch
- ACME 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)**



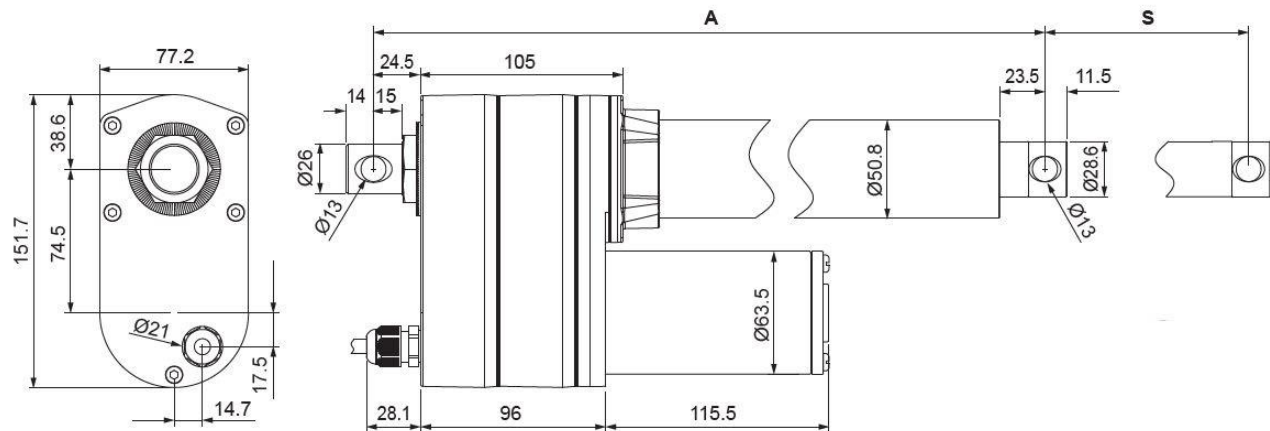
Nominal Stroke	4"		6"		8"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.02	102	6.02	153	7.99	203	12.01	305	17.99	457	24.02	610
Retracted Length (A)	10.31	262	12.32	313	14.33	364	18.31	465	26.30	668	32.32	821
Extended Length	14.33	364	18.35	466	22.32	567	30.31	770	44.29	1125	56.34	1431

Stroke: +/- 0.1 in [2.5mm]

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

## Dimensions

### With Potentiometer Only



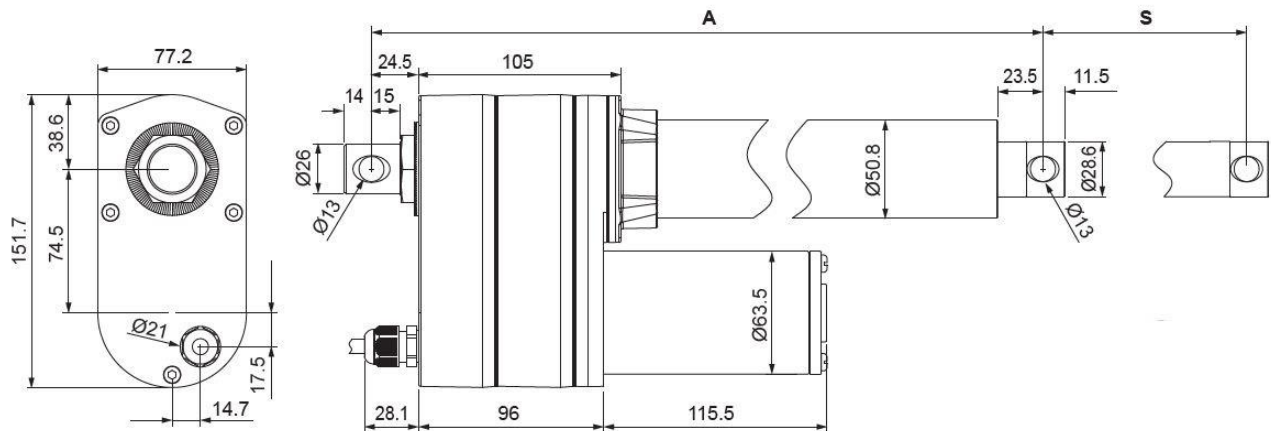
Nominal Stroke	4"		6"		8"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.02	102	6.02	153	7.99	203	12.01	305	17.99	457	24.02	610
Retracted Length (A)	11.89	302	13.90	353	15.91	404	19.88	505	27.87	708	33.90	861
Extended Length	15.91	404	19.92	506	23.90	607	31.89	810	45.87	1165	57.91	1471

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"		12"		18"		24"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	4.02	102	6.02	153	7.99	203	12.01	305	17.99	457	24.02	610
Retracted Length (A)	14.13	359	16.14	410	18.11	460	24.13	613	30.12	765	36.14	918
Extended Length	18.15	461	22.17	563	26.10	663	36.14	918	48.11	1222	60.16	1528

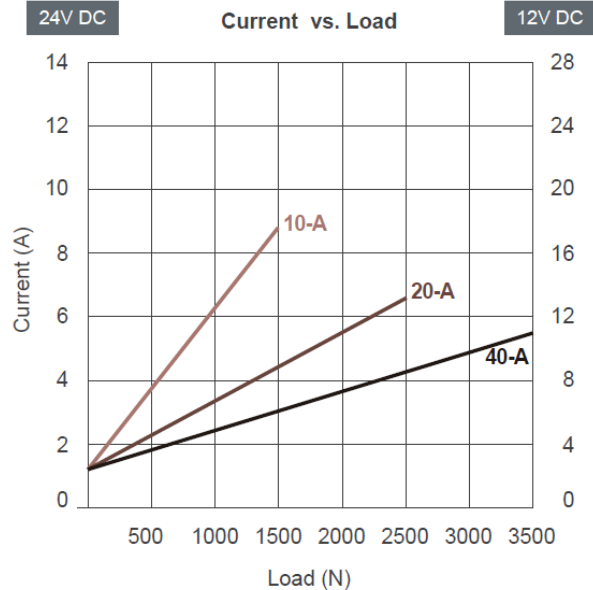
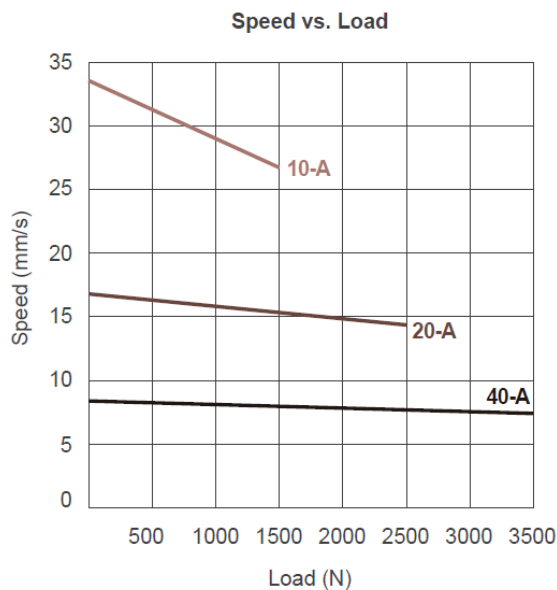
Stroke: +/- 0.1 in [2.5mm]

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

## Performance Data

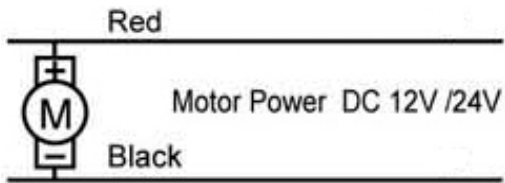
Gear Ratio	Max Load/Dynamic		Speed/No Load		Speed/Max Load	
	Lbs. [US]	Newtons	inches/sec	mm/sec	inches/sec	mm/sec
10:1	337	1500	1.32	33.5	1.05	26.7
20:1	562	2500	0.66	16.8	0.56	14.3
40:1	787	3500	0.33	8.4	0.29	7.4

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



## Electrical

### Standard



Gear Ratio: 10:1, 20:1

Red + // Black - : Extend

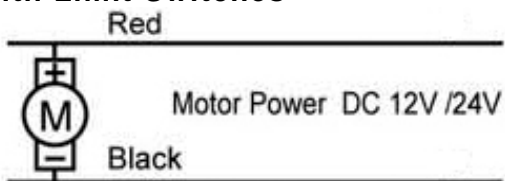
Red - // Black + : Retract

Gear Ratio: 40:1

Red + // Black - : Retract

Red - // Black + : Extend

### With Limit Switches

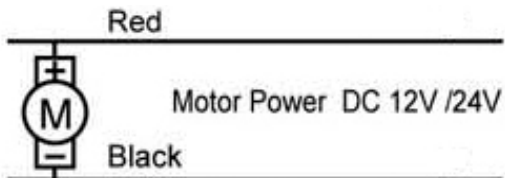


Gear Ratio: 10:1, 20:1, 40:1

Red + // Black - : Extend

Red - // Black + : Retract

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

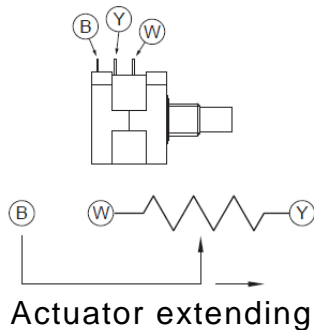


Gear Ratio: 10:1, 20:1, 40:1

Red + // Black - : Extend

Red - // Black + : Retract

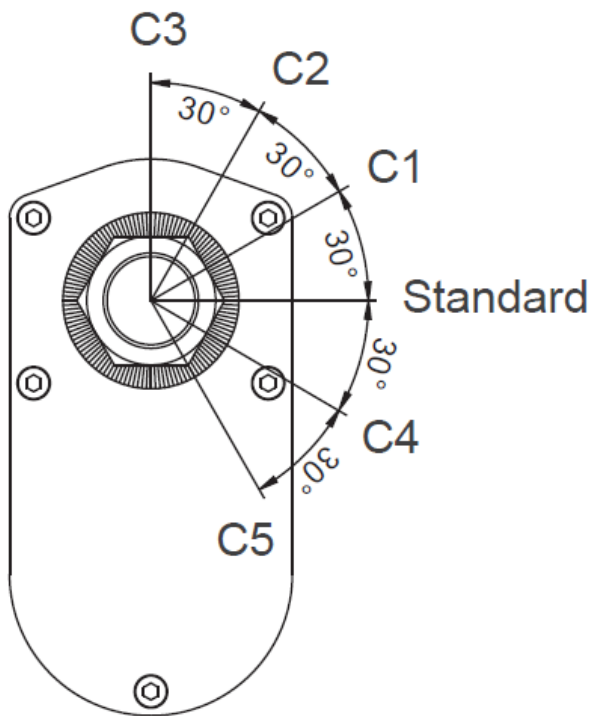
## Potentiometer



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**

A : AMCE Screw (562 lbs. @ 20:1)

**Input Voltage**

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

**Gear Ratio**

10 : 10:1  
20 : 20:1  
40 : 40:1  
Not all gear ratios stocked

**Stroke (nominal)**

04 : 4" [102mm]  
06 : 6" [153mm]  
08 : 8" [203mm]  
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

**Terms of Use**

The user is responsible for determining the suitability of Concentric International products for specific applications. Due to continuous development in order to improve its products, Concentric International products are subject to change without prior notice. Concentric International reserves the right to discontinue the sale of any products at any time.