

Product Data Sheet



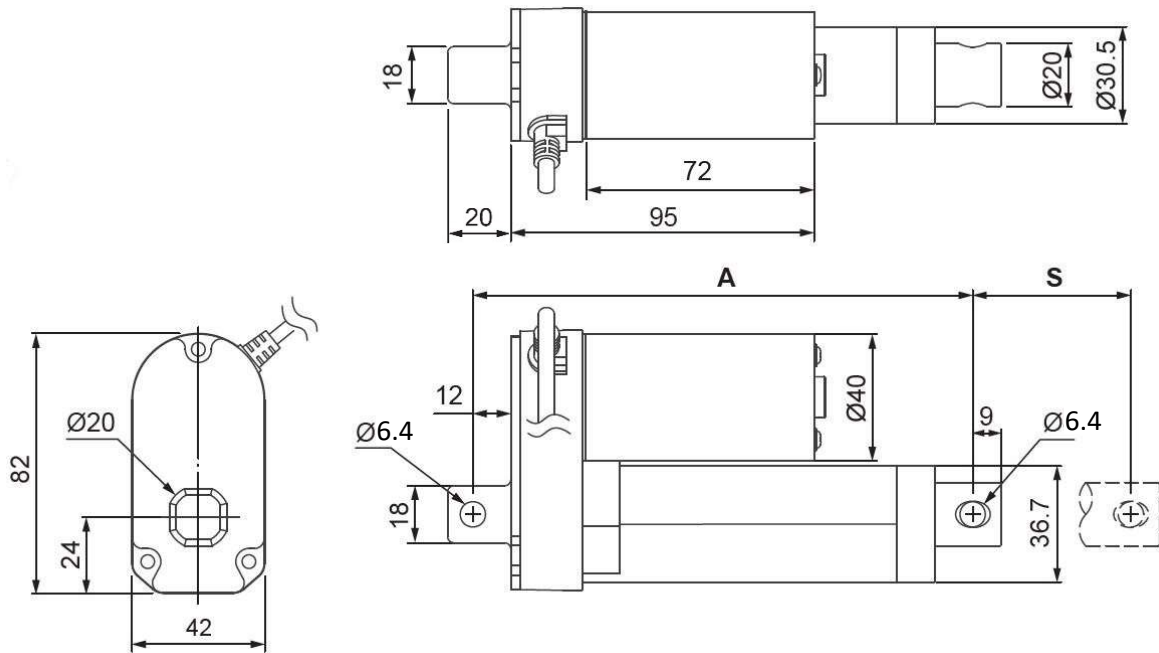
Standard Features:

- Compact design
- All aluminum frame and extension tube
- Nominal stroke lengths: 2" [50mm], 4" [100mm], 6" [150mm], 8" [200mm], 10" [250mm], 12" [300mm]
- Input voltage: 12VDC
- Standard gear ratio: 20:1 [other ratios available]
- Dynamic load range: 27 lbs. [120 Newtons] –to- 180 lbs. [800 Newtons]
- Maximum static load: 562 lbs. [2,500 Newtons]
- Maximum current draw: 3.5 Amps @ 12 VDC
- Speed at no load: 0.55 in/sec [14 mm/sec] –to- 3.3 in/sec [84 mm/sec]
- Speed at full load: 0.49 in/sec [12 mm/sec] –to- 2.9 in/sec [75 mm/sec]
- Standard preset limit switches at both ends of stroke
- All metal drive gears
- Noise level: ≤70dB (no load)
- Mounting hole diameter (both ends): 1/4" [6.4mm]
- Duty cycle: 25% or 1 min continuous operation in 4 min.
- Working temperature: -13F [-25C] to +149F [+65C]
- IP rating: IP65 (IP69K – special order)

Accessories:

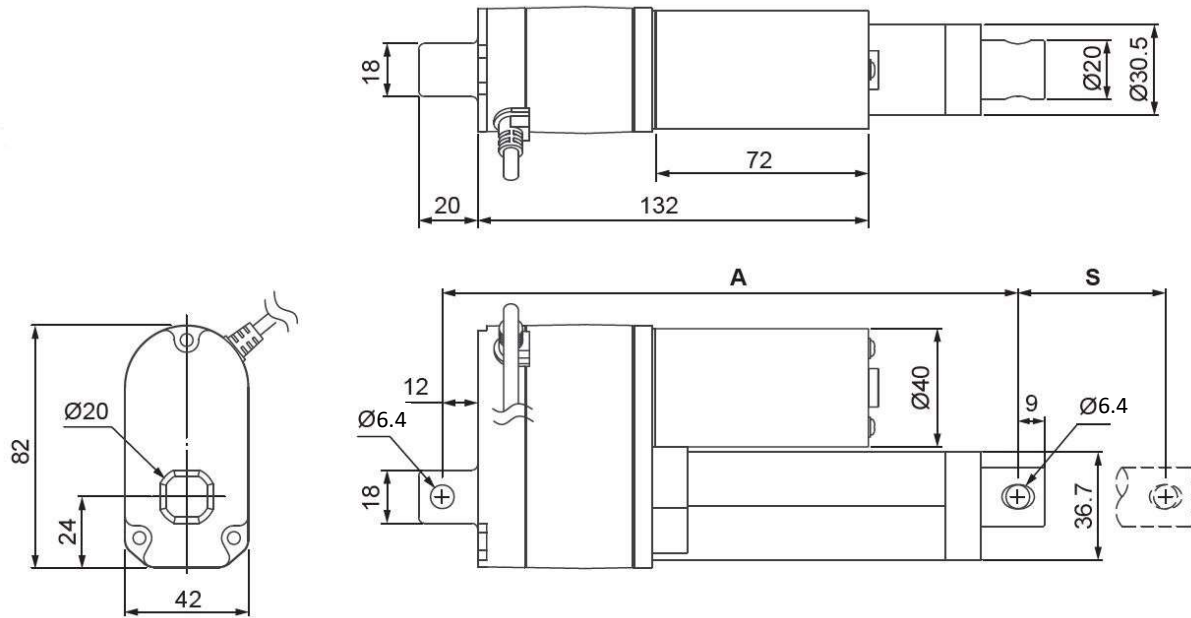
- Mounting brackets
- Direction reversing switches
- Wired and wireless controllers
- Direction reversing relays

Dimensions – Actuator Without Potentiometer



Nominal Stroke	2"		4"		6"		8"		10"		12"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	1.97	50	3.94	100	5.91	150	7.87	200	9.84	250	11.81	300
Retracted Length (A)	6.22	158	8.23	209	10.24	260	12.24	311	14.25	362	16.26	413
Extended Length	8.19	208	12.17	309	16.14	410	20.19	511	24.09	612	28.07	713

Dimensions – Actuator With Potentiometer



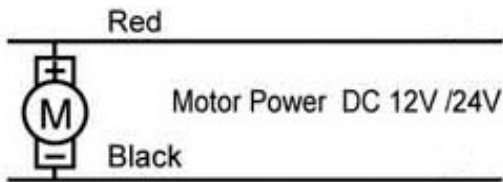
Nominal Stroke	2"		4"		6"		8"		10"		12"	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Actual Stroke (S)	1.97	50	3.94	100	5.91	150	7.87	200	9.84	250	11.81	300
Retracted Length (A)	7.68	195	9.69	246	11.69	297	13.70	348	15.71	399	17.72	450
Extended Length	9.65	245	13.62	346	17.60	447	21.57	548	25.55	649	29.53	750

Performance Data

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	27	120	3.3	84.3	2.9	74.6
10:1	45	200	2.2	56.5	1.8	44.9
20:1	90	400	1.1	28.8	0.92	23.3
30:1	144	640	0.74	18.8	0.63	16.1
40:1	180	800	0.55	14.0	0.49	12.4

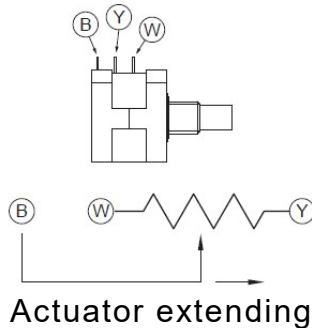
Gear Ratio	Typical Current (A)		Max. Static Load	
	No Load	Full Load	Lbs. [US]	Newtons
	12 VDC	12 VDC		
5:1	1.1	3.4	67	300
10:1	1.0	3.4	67	300
20:1	0.9	3.3	562	2500
30:1	0.9	3.4	562	2500
40:1	0.9	3.5	562	2500

Electrical



Without Potentiometer
 Red + // Black - : Extend
 Red - // Black + : Retract

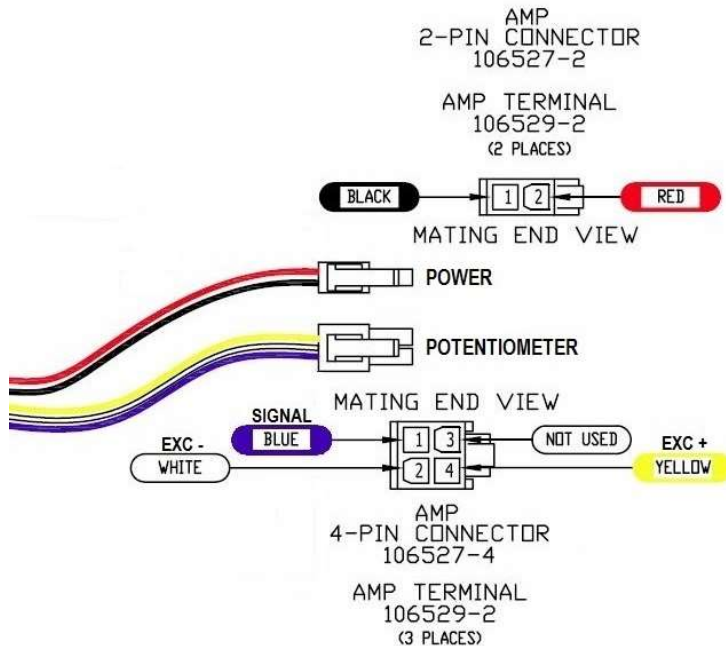
With Potentiometer
 Red + // Black - : Retract
 Red - // Black + : Extend



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).

Connector Wiring



Ordering Key

GF23 - - -

Input Voltage

12 : 12 VDC
24 : 24 VDC

Gear Ratio

05 : 5:1
10 : 10:1
20 : 20:1 (Standard Gear Ratio)
30 : 30:1
40 : 40:1
Not all gear ratios stocked

Stroke (nominal)

02 : 2" [50mm]
04 : 4" [100mm]
06 : 6" [150mm]
08 : 8" [200mm]
10 : 10" [250mm]
12 : 12" [300mm]
Additional stroke lengths available

Options

1 : Limit Switches
3 : Limit Switches and Potentiometer

IP Rating

65 : IP65
69 : IP69K (available by special order)

- Not all combinations stocked

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