



Scan for more information

PA-13

User Manual

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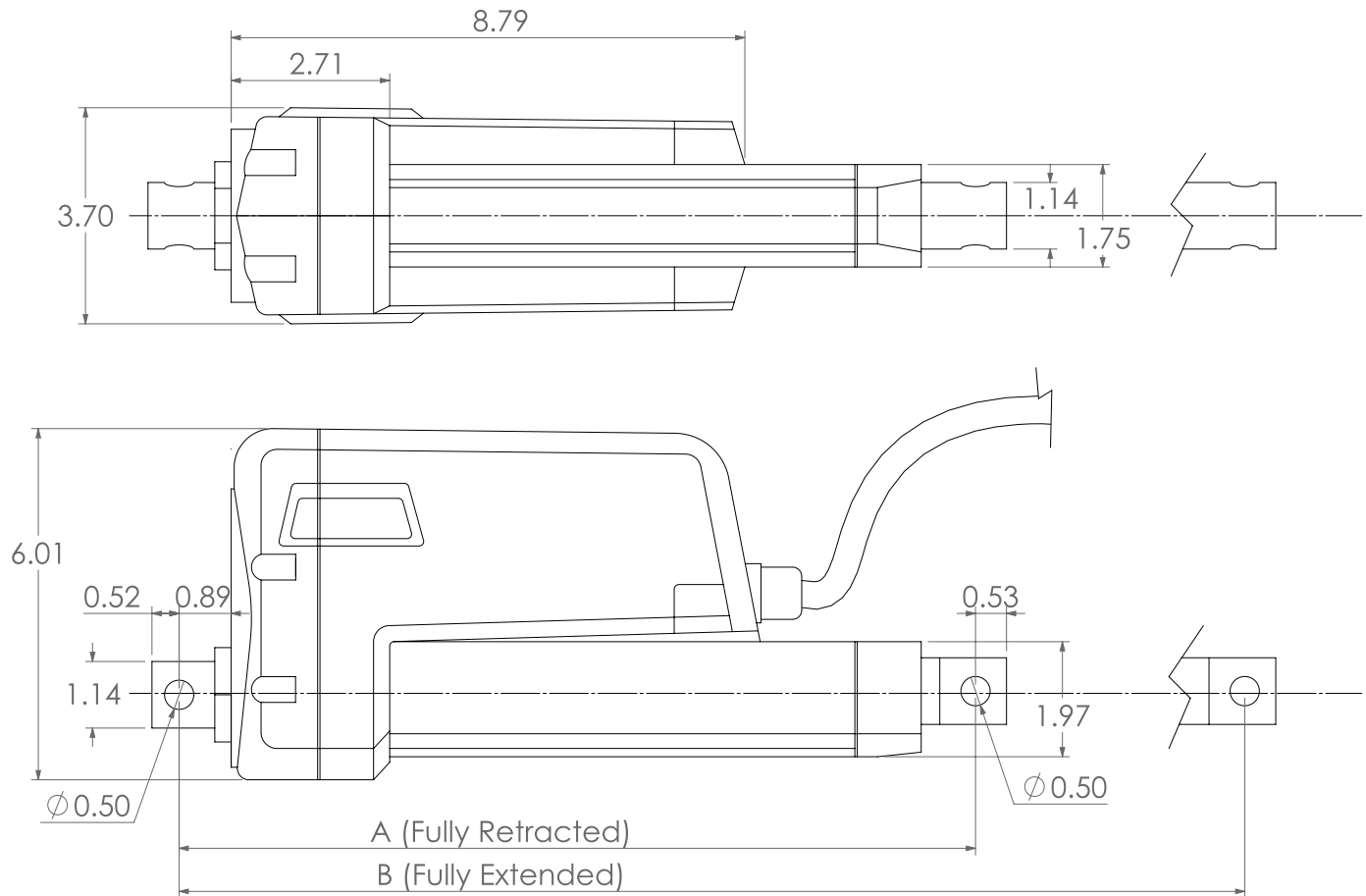
Specifications

Load (LBS)		No Load Current (A)		Full Load Current (A)		Speed (inch/sec)	
Dynamic	Static	12VDC	24VDC	12VDC	24VDC	No Load	Full Load
3000	3372	4.0	2.4	20.0	10.5	0.23	0.16
2473	2698	4.0	2.4	20.0	10.5	0.33	0.24
2248	2698	4.0	2.4	20.0	10.5	0.51	0.28
1686	2023	4.0	2.4	20.0	10.5	0.51	0.35
1574	1798	4.0	2.4	20.0	10.5	0.67	0.37
1461	1798	4.0	2.4	20.0	10.5	0.79	0.43
1124	1349	4.0	2.4	20.0	10.5	0.98	0.55
1012	1236	4.0	2.4	20.0	10.5	0.98	0.51
719	899	4.0	2.4	20.0	10.5	1.5	0.94

Stroke	0.79" to 40"
Limit Switch	Internal - Non-Adjustable
Limit Switch Feedback	Customizable
Screw Type	ACME Screw, Ball Screw
Motor Type	Brushed DC Motor
Connector Type	See Page 6
Wire Length	40" (customizable)
Housing Material	6062 Aluminum Alloy
Rod Material	Stainless Steel
Gear Material	Powder Metallurgy Steel Alloy
Color (Shaft)	Silver
Color (Motor End)	Graphite
Noise	<90dB
Duty Cycle	20% (4 minutes on, 16 minutes off)
Overload Protection	Built-in Electric Shutoff
Operational Temperature	-40°C to 60°C (-40°F to 140°F)
Protection Class	IP66
Feedback Options	None, Hall Effect, Potentiometer, Limit Switch
Certifications	CE
Mounting Brackets	BRK-17
Mounting Ends	Customizable
Features	Manual Override

Dimensions

(Dimensions in inches)



Hole to Hole												
PA-13	Stroke	4	6	8	10	12	14	16	18	24	30	40
	A	11.87	13.87	15.87	17.87	21.84	23.84	25.84	27.84	33.84	41.81	51.81
	B	15.87	19.87	23.87	27.87	33.84	37.84	41.84	45.84	57.84	71.81	91.81

For Stroke Length less than 4"

A = 11.87"

B = Stroke Length + 11.87"

For Stroke Length 12" and Greater

A = Stroke Length + 9.84"

B = Stroke Length x 2 + 9.84"

For Stroke Length of 4" and Greater

A = Stroke Length + 7.87"

B = Stroke Length x 2 + 7.87"

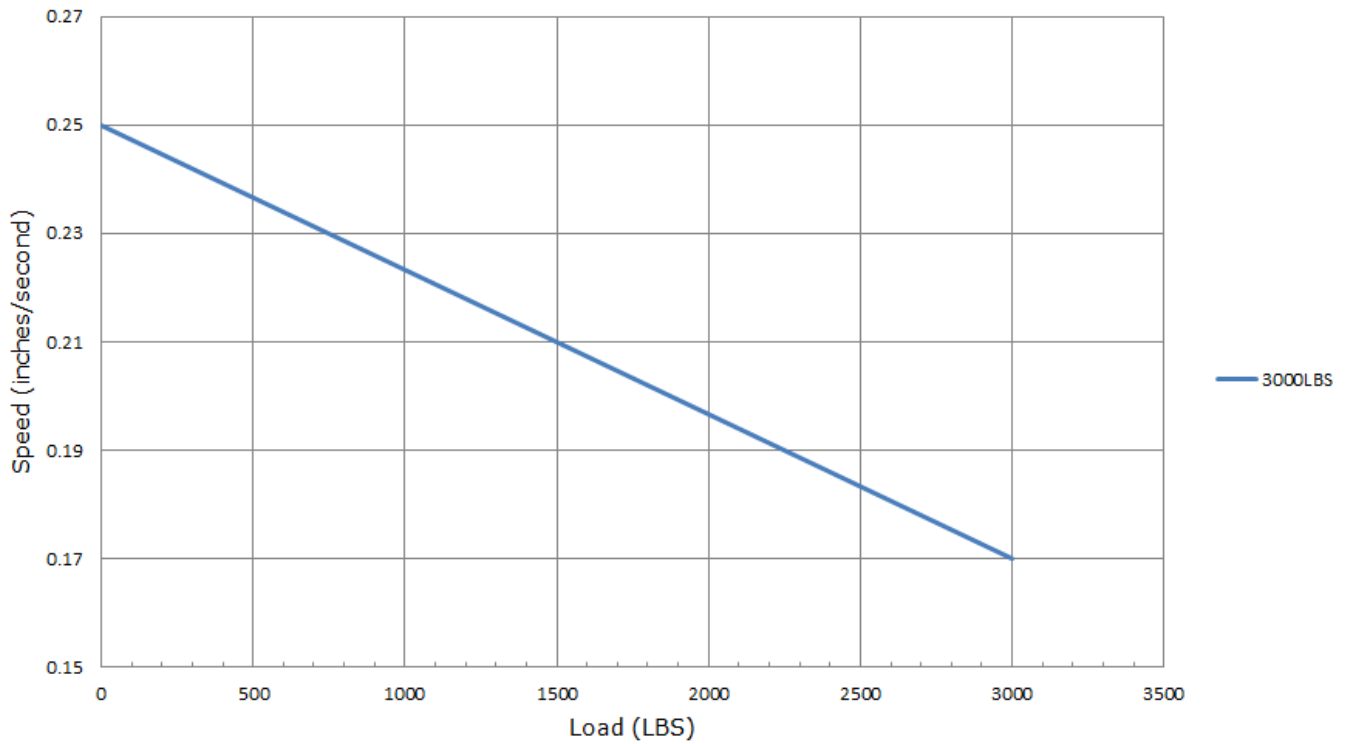
For Stroke Length greater than 24"

A = Stroke Length + 11.81"

B = Stroke Length x 2 + 11.81"

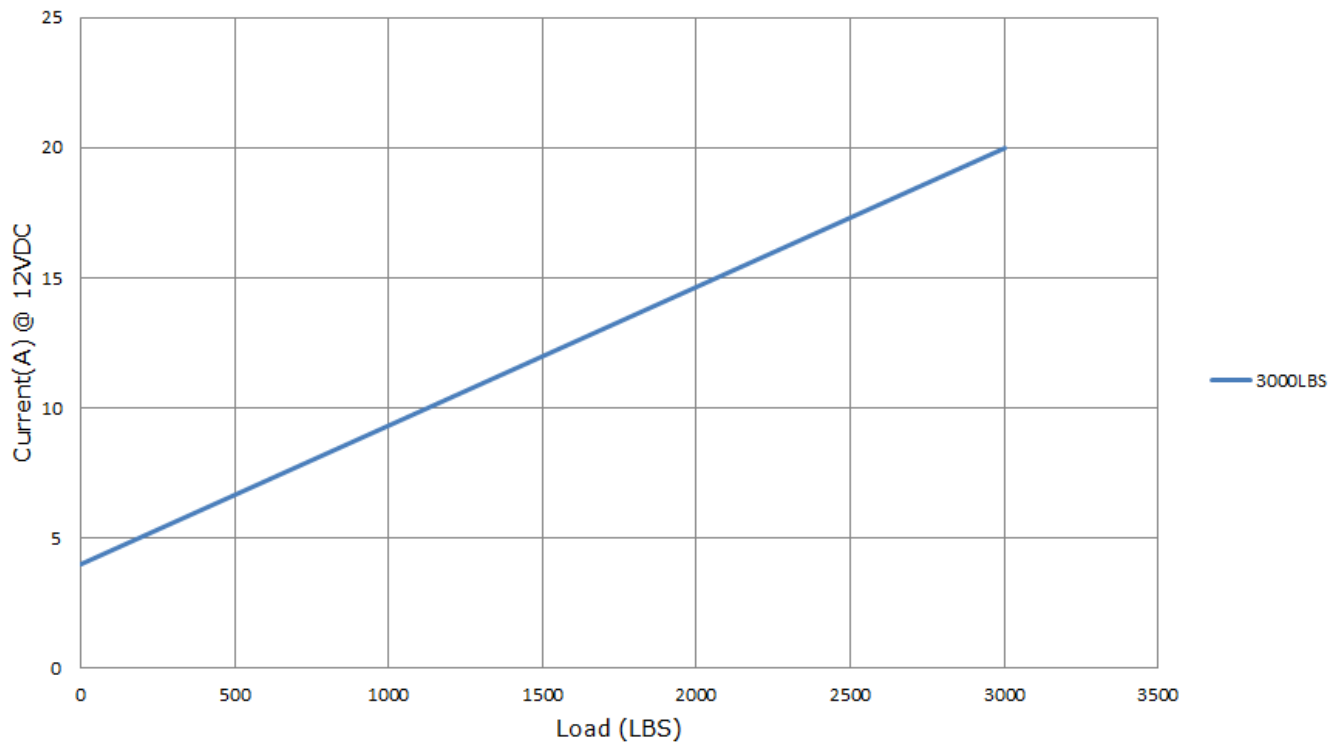
Speed vs Load

Speed vs. Load: PA-13 Linear Actuator



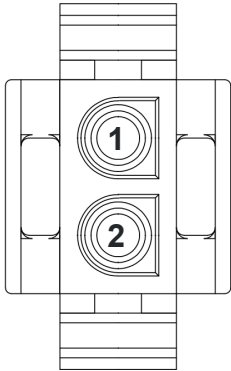
Current vs Load

Current vs. Load: PA-13 Linear Actuator



Connectors & Feedback

2-Pin Connector (Standard)



Motor	
1	2
M-	M+

Component	Part Name	Part Number	Mating Part Number
Housing	Tyco Electronics AMP Universal Mate-N-Lok PLUG	1-480698-0	1-480698-0

Hall Effect Wires

Hall Effect equipped actuators will come with tinned wire leads and no connector.

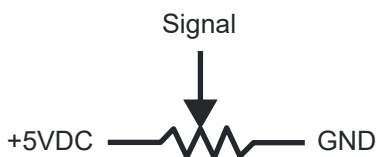
Motor		Hall Sensor			
12 AWG	12 AWG	24 AWG	24 AWG	24 AWG	24 AWG
Black	Red	Black	Red	Yellow	White
M- (Retract)	M+ (Extend)	GND	+5VDC	Signal 2 Leads when Extending	Signal 1 Leads when Retracting

Output Signal Extending		Output Signal Retracting	
Hall Effect 1 Signal		Hall Effect 1 Signal	
Hall Effect 2 Signal		Hall Effect 2 Signal	

Force (lbs)	Resolution (pulses/inch)
250	160
330	650
450	433

Potentiometer Specifications

*For Stroke Length up to 6"



Resistance	Number of Turns	Tolerance
0-10kΩ	10	+/- 5%

*Actual resistance value may vary within the 0-10kΩ range based on stroke length

Features

Manual Override Operation

The manual override can be carried out while the PA-13 actuator is loaded if the load experienced was below the maximum load specifications (3000lbs).

To operate manual override:

- Shut down power or disconnect the actuator from power

- Remove the Torx screw located in the back center of the actuator

- Insert a 6mm hex key into the hole

- Turn the hex key clockwise to retract the actuator. For extending the actuator, turn the hex key counterclockwise

- When finished with manual override, remove the hex key, and screw the Torx screw back in place