

PA-14P Data Sheet



Contents

Specifications	2
Dimensions	3
Speed/Current vs Load	4
Connectors & Feedback	5
Internal Components	6
Internal Descriptions	7

Specifications



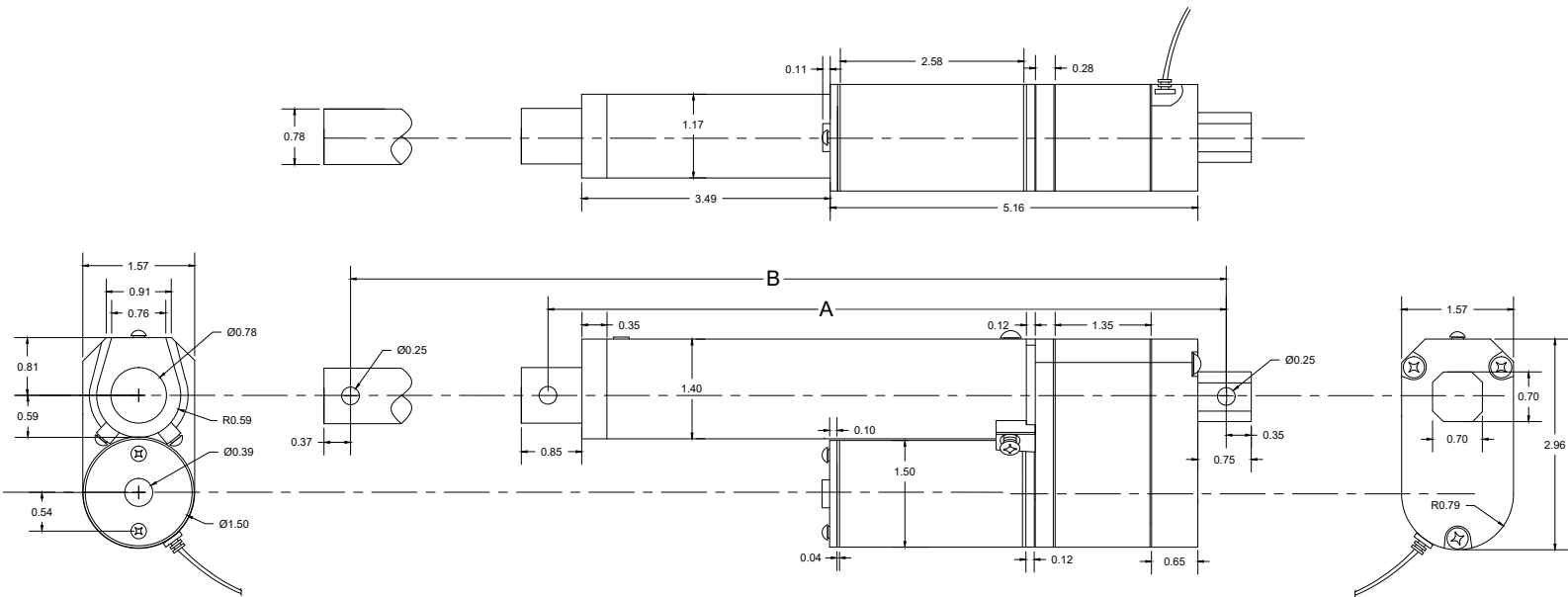
Load (LBS)		No Load Current (A)				Full Load Current (A)				Speed (inch/sec)	
Dynamic	Static	12VDC	24VDC	36VDC	48VDC	12VDC	24VDC	36VDC	48VDC	No Load	Full Load
35	75	1.0	0.5	0.3	0.3	5.0	2.5	1.7	1.3	2.00	1.38
50	100	1.0	0.5	0.3	0.3	5.0	2.5	1.7	1.3	1.14	0.83
75	150	1.0	0.5	0.3	0.3	5.0	2.5	1.7	1.3	0.95	0.70
110	220	1.0	0.5	0.3	0.3	5.0	2.5	1.7	1.3	0.79	0.59
150	300	1.0	0.5	0.3	0.3	5.0	2.5	1.7	1.3	0.37	0.28

Stroke	1" to 40"
Limit Switch	Internal - Non-Adjustable
Limit Switch Feedback	Customizable
Screw Type	ACME Screw
Motor Type	Brushed or Brushless DC Motor
Connector Type	See Page 5
Wire Length	40" (customizable)
Housing Material	6062 Aluminum Alloy
Rod Material	Aluminum Alloy/Stainless Steel (customizable)
Gear Material	Polyformaldehyde (35 lbs only)/Powder Metallurgy Steel Alloy
Color (Shaft)	Silver
Color (Motor End)	Silver
Noise	<45dB
Duty Cycle	25% (5 minutes on, 15 minutes off)
Operational Temperature	-25°C to 65°C (-13°F to 149°F)
Protection Class	IP54 (IP65 customizable)
Feedback Options	Potentiometer (see page 5)
Certifications	CE/RoHS
Mounting Brackets	See Page 6
Mounting Ends	Customizable



Dimensions

(Dimensions in inches)



Hole to Hole

Stroke	1	2	3	4	6	8	9	10	12	14	16	18	20	22	24	30	40
PA-14P A	6.51	7.51	8.51	9.51	11.51	13.51	14.51	15.51	17.51	19.51	21.51	23.51	25.51	27.51	29.51	35.51	45.51
B	7.51	9.51	11.51	13.51	17.51	21.51	23.51	25.51	29.51	33.51	37.51	41.51	45.51	49.51	53.51	66.61	85.51

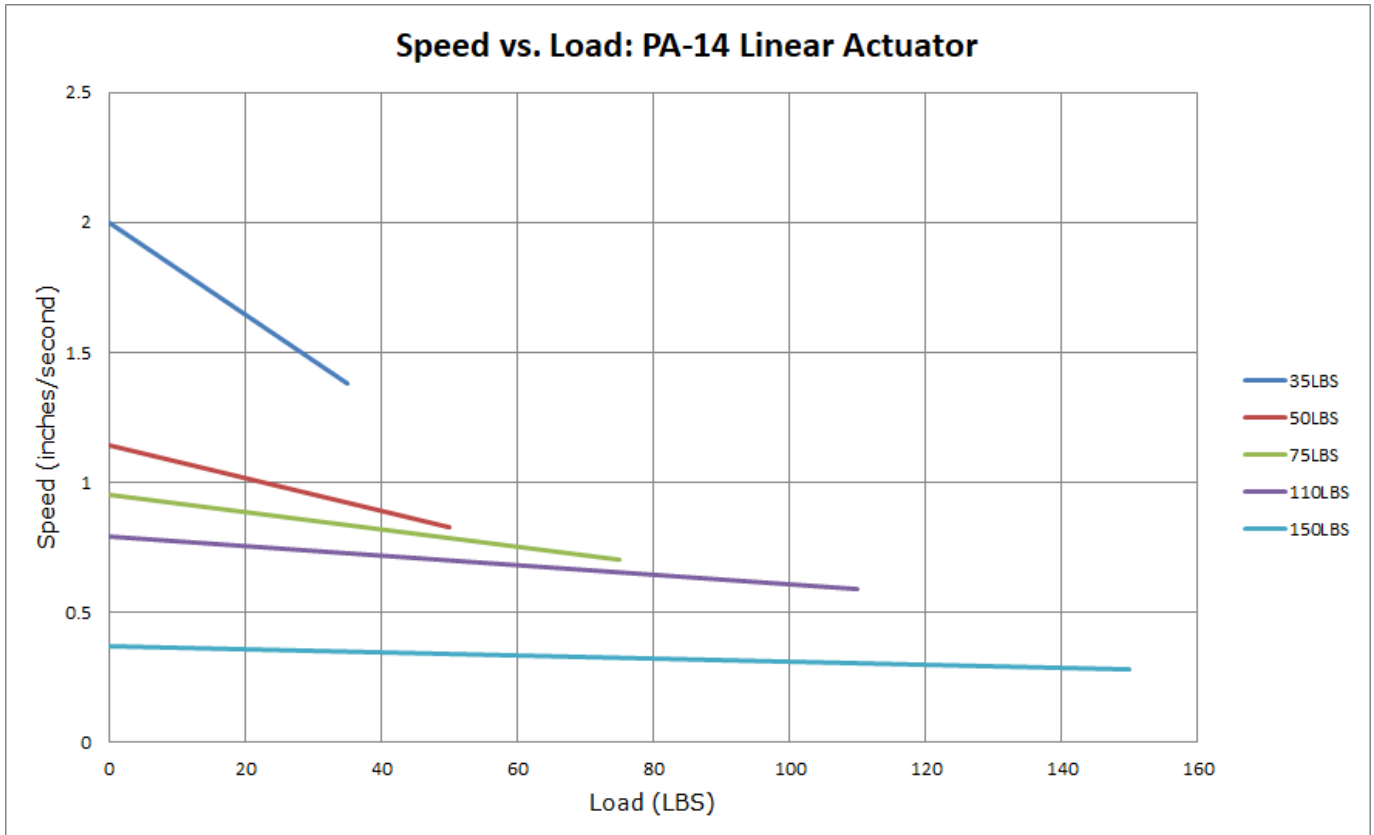
For Stroke Length

A = Stroke Length + 5.51"

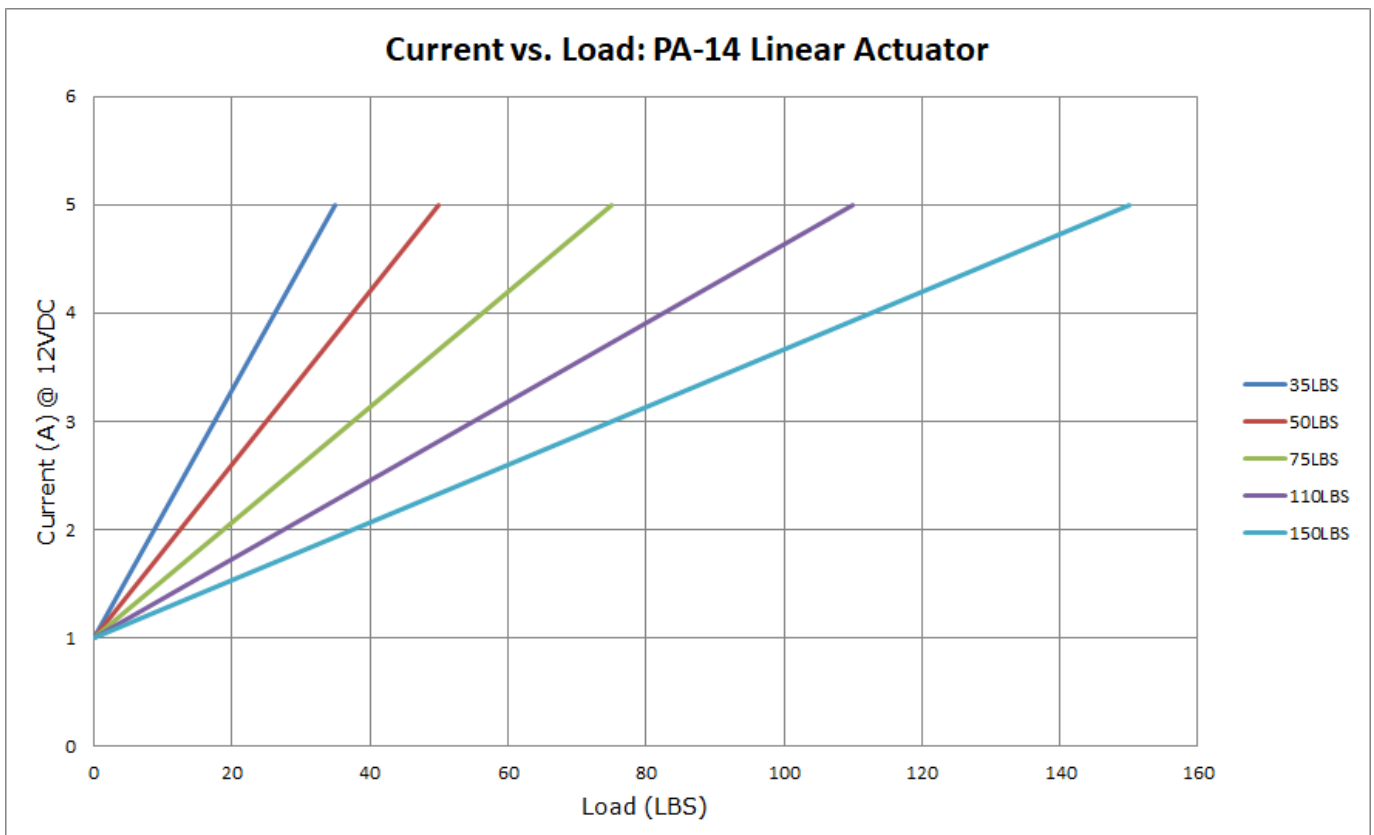
B = Stroke Length x 2 + 5.51"



Speed vs Load



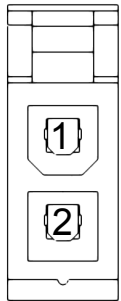
Current vs Load



Connectors & Feedback



2-Pin Connector (Standard)

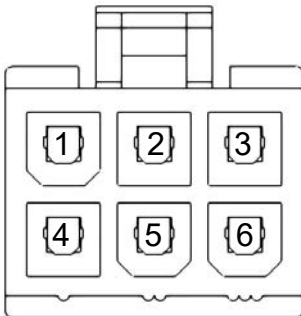


Motor	
1	2
M-	M+

Component	Part Name	Part Number	Mating Part Number
Housing	Molex Mini Fit Jr 2-Pin Receptacle	39-01-2025	39-01-3029/ 39-01-2026

Potentiometer Specifications

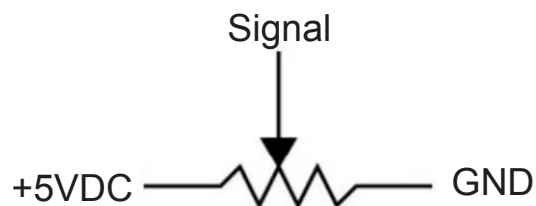
*For Stroke Length up to 40"

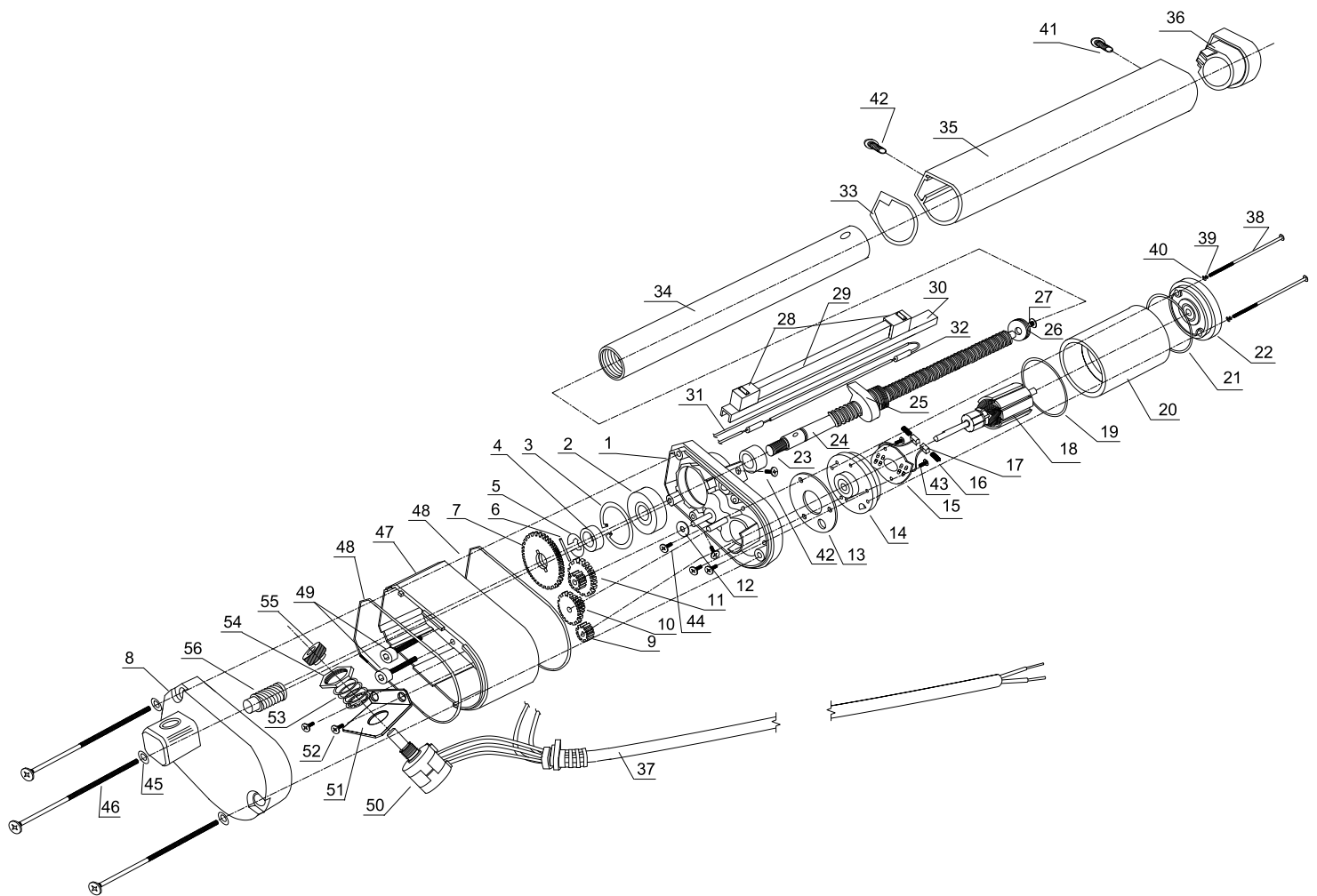


Motor		Potentiometer			
1	2	3	4	5	6
Actuator Positive (Black Wire)	Actuator Negative (Red Wire)	Potentiometer (Blue Wire)	-	GND (White wire)	5V (Yellow Wire)

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

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





Internal Descriptions



Item	Description	Qty
1	Actuator base	1
2	Shaft Bearing	1
3	Shaft Bearing Lock	1
4	Shaft Base Spacer	1
5	Shaft Base Spacer Lock	1
6	Shaft Gear Wheel Holder	1
7	Shaft Gear Wheel	1
8	Base Cover with Mounting Support	1
9	Electric Motor Gear Wheel	1
10	Small Intermediate Gear Wheel	1
11	Medium Intermediate Gear Wheel	1
12	Teflon Washer	1
13	Electric Motor Base Washer	1
14	Electric Motor Base	1
15	Brush Holder PCB	1
16	Electric Motor Brush	2
17	Electric Motor Brush Spring	2
18	Electric Motor Rotor	1
19	Motor Enclosure Bottom Washer	1
20	Electric Motor Encloser with Stator	1
21	Motor Enclosure Top Washer	1
22	Electric Motor Cap with Rotor Bearing	1
23	Shaft Spacer	1
24	Treaded Shaft Drive / Lead Screw	1
25	Shaft Base with Limit Switches Arm	1
26	Shaft Drive End Support	1
27	Shaft Drive End Support Screw	1
28	Limit Switch	2

Item	Description	Qty
29	Limit Switches Spacer	1
30	Limit Switches Base	1
31	Limit Switches Wiring	1
32	Diode	2
33	Shaft Encloser Bottom Washer	1
34	Shaft with Mounting Hole	1
35	Shaft Encloser	1
36	Shaft Enclosure Top Cap	1
37	Power Cable	1
38	Motor Enclosure Screw	2
39	Motor Screw Spring Washer	2
40	Motor Screw Washer	2
41	Shaft Enclosure Top Cap Screw	1
42	Shaft Enclosure Base Screw	3
43	Brush Holder PCB Screw	2
44	Motor Base Screw	3
45	Base Cover Washer	3
46	Base Cover Screw	3
47	Base Extension	1
48	Base Extension gasket	2
49	Base Extension Screw	2
50	Potentiometer	1
51	Potentiometer Bracket	1
52	Potentiometer Bracket Screw	2
53	Potentiometer Washer	3
54	Potentiometer Nut	1
55	Potentiometer Gear	1
56	Shaft Gear	1