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PA-03

User Manual

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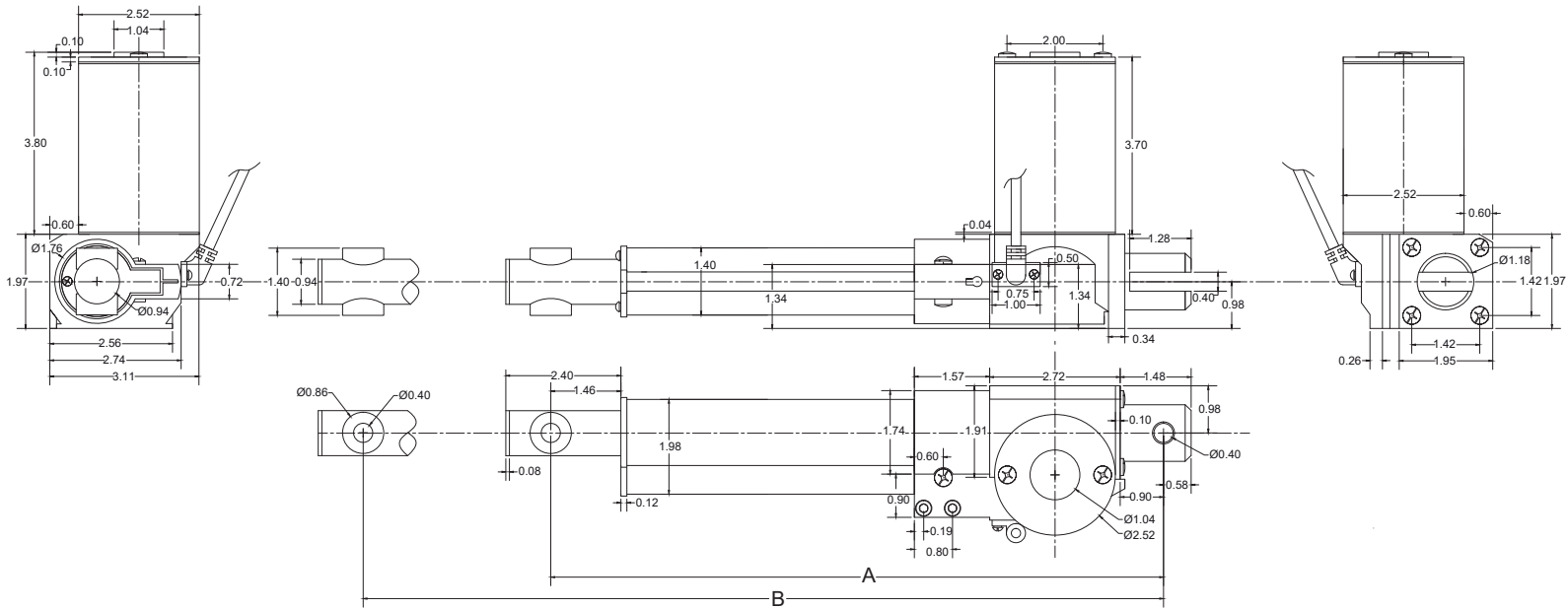
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Specifications

Load (LBS)		No Load Current (A)		Full Load Current (A)		Speed (inch/sec)	
Dynamic	Static	12VDC	24VDC	12VDC	24VDC	No Load	Full Load
200	200	2.0	1.5	9.0	4.5	1.60	0.86
600	600	2.0	1.5	7.6	4.0	0.31	0.19
1000	1000	3.0	0.7	9.5	3.3	0.20	0.12

Stroke	1" to 40"
Limit Switch	Internal - Non-Adjustable
Limit Switch Feedback	Available in 24VDC Only
Screw Type	ACME Screw
Motor Type	Brushless DC Motor
Connector Type	See Page 6
Wire Length	40" (customizable)
Housing Material	Aluminum Alloy
Rod Material	Aluminum Alloy
Gear Material	Polyformaldehyde
Color (Shaft)	Silver
Color (Motor End)	Black/White (customizable)
Noise	<45dB
Duty Cycle	20% (4 minutes on, 16 minutes off)
Operational Temperature	-25°C to 65°C (-13°F to 149°F)
Protection Class	IP43
Feedback Options	Hall Effect, Reed Switch, or Limit Switch Feedback (see page 6)
Certifications	CE/RoHS, UL (customizable)
Mounting Brackets	See Page 7
Mounting Ends	Customizable

Dimensions



Hole to Hole

PA-03	Stroke	1	2	3	4	6	8	9	10	12	14	16	18	20	22	24	30	40	50	60
	A	7.88	8.88	9.88	10.88	12.88	14.88	15.88	16.88	18.88	20.88	23.68	25.68	27.68	29.68	31.68	37.68	47.68	57.68	67.68
B	8.88	10.88	12.88	14.88	18.88	22.88	24.88	26.88	30.88	34.88	39.68	43.68	47.68	51.68	55.68	67.68	87.68	107.68	127.68	

For Stroke Length Less Than 16"

A = Stroke Length + 6.88"

B = Stroke Length x 2 + 6.88"

For Stroke Length Greater Than or Equal to 16"

A = Stroke Length + 7.68"

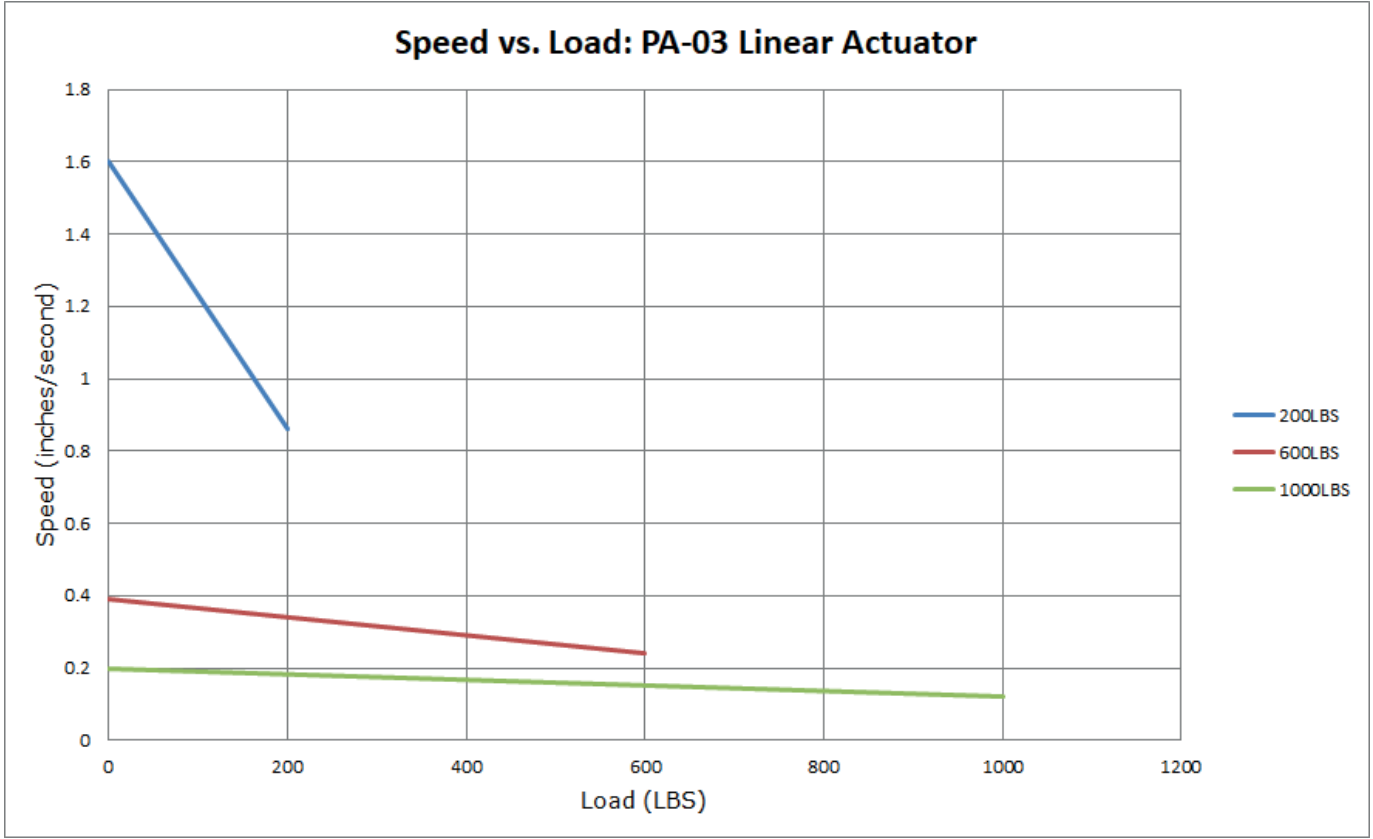
B = Stroke Length x 2 + 7.68"

For All Strokes Lengths with Hall Effect Sensor

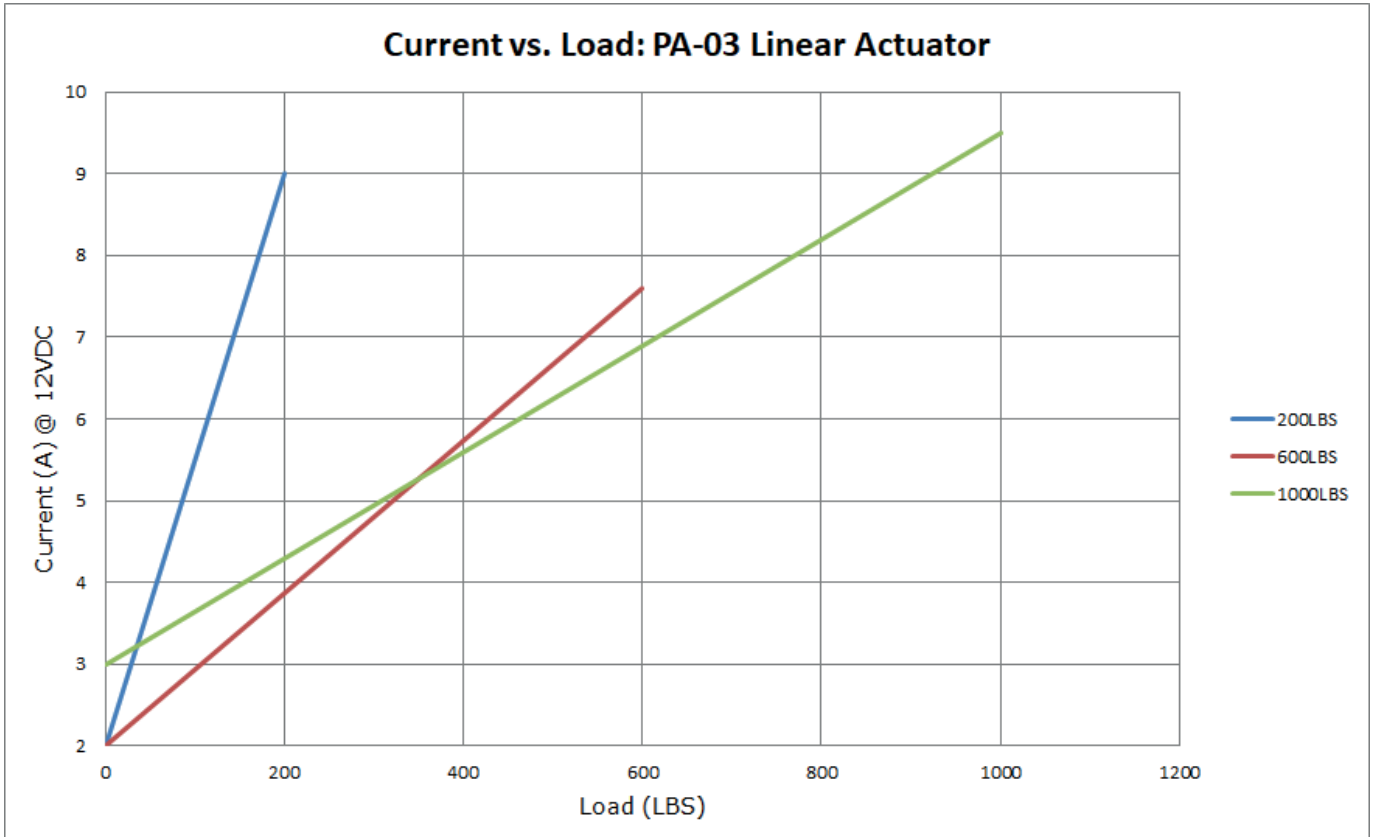
A = Stroke Length + 7.68"

B = Stroke Length x 2 + 7.68"

Speed vs Load

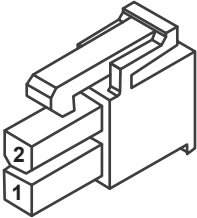


Current vs Load



Connectors & Feedback

2-Pin Connector (Standard)

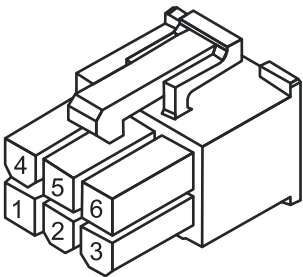


Motor	
2	1
M-	M+

Component	Part Name	Part Number	Mating Part Number
Housing	Molex Mini Fit Jr 2-Pin Receptacle	39-01-2025	39-01-2029
			39-01-2026

6-Pin Hall Effect Connector

*For Stroke Length up to 40"



Motor		Hall Sensor			
4	5	2	3	1	6
M+ (Extend)	M- (Retract)	GND	+5VDC	Signal 2 Leads when Extending	Signal 1 Leads when Retracting

Component	Part Name	Part Number	Mating Part Number
Housing	Molex Mini Fit Jr 6-Pin Receptacle	39-01-2065	39-01-2069 39-01-2066

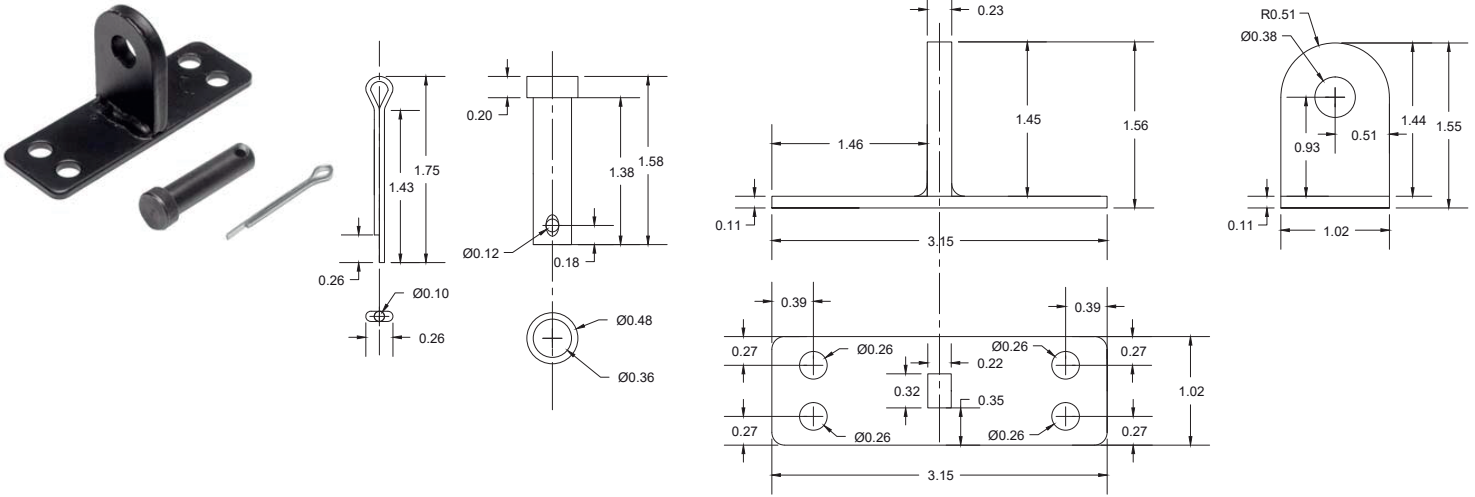
Output Signal Extending		Output Signal Retracting	
Hall Effect 1 Signal		Hall Effect 1 Signal	
Hall Effect 2 Signal		Hall Effect 2 Signal	

Force	Resolution (pulses/ inch)
200	4,953
600	15,850
1000	29,718

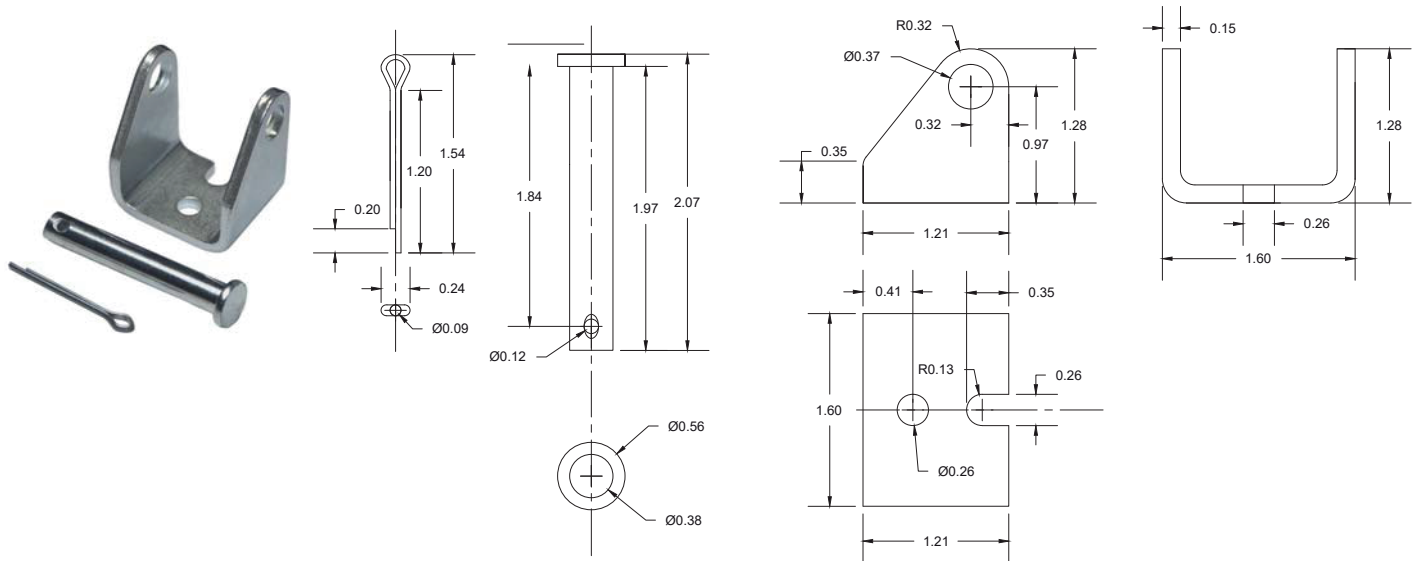
Mounting Brackets

i BRK-01/BRK-02 can only be used to install on the motor-end of the actuator

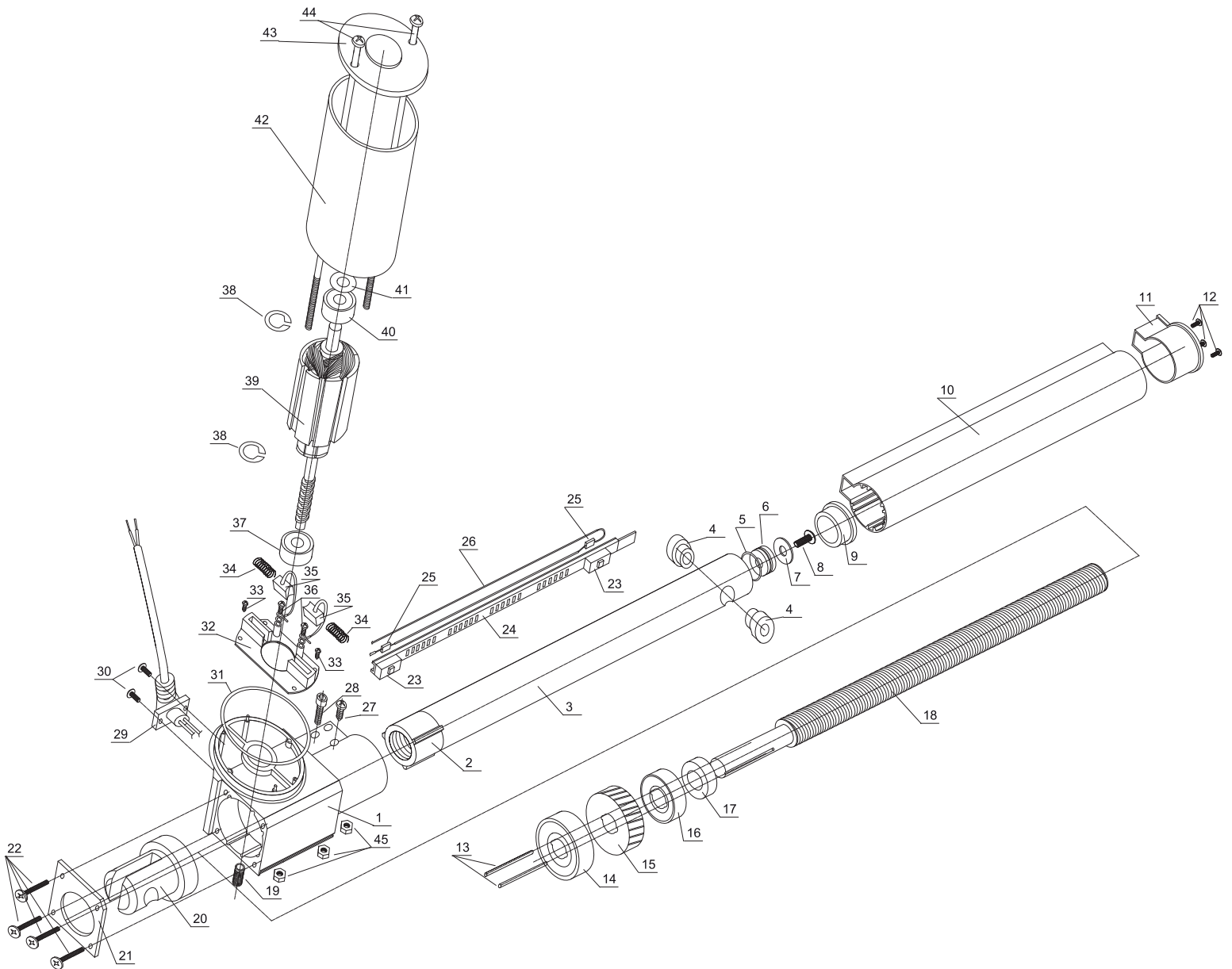
BRK-01



BRK-02



Internal Components



Internal Descriptions

Item	Description	Qty
1	Actuator base	1
2	Shaft Guide	1
3	Shaft with Mounting Hole	1
4	Mounting Hole Guard	2
5	Shaft Drive O-Ring	1
6	Shaft Stopper	1
7	Shaft Stopper Washer	1
8	Shaft Stopper Screw	1
9	Shaft Top Cap	1
10	Shaft Enclosure	1
11	Shaft Enclosure Cap	1
12	Shaft Enclosure Cap Screw	3
13	Gear Wheel Locking Pin	2
14	Shaft Drive Bottom Ball Bearing	1
15	Shaft Drive Gear Wheel	1
16	Shaft Drive Ball Bearing	1
17	Shaft Drive Bumper	1
18	Shaft Drive	1
19	Rotor Bottom Support Screw	1
20	Bottom Cap With Mounting Hole	1
21	Bottom Cap Mounting Plate	1
22	Mounting Plate Screw	4
23	Limit Switch	2
24	Limit Switch Carrier	1
25	Diode	2
26	Wire	1
27	Shaft Enclosure Central Screw	1
28	Shaft Enclosure Side Screw	1
29	Power Cable With Mounting	1
30	Power Cable Screw	2
31	Motor Case Gasket	1
32	Brush Holder PCB	1
33	Brush Holder PCB Screw	2
34	Brush Spring	2
35	Electric Motor Brush	2
36	Brush Wire Screw	2
37	Rotor Bottom Bearing	2
38	Locking Washer	2
39	Electric Motor Rotor	1
40	Rotor Top Bearing	1
41	Rotor Top Washer	1
42	Electric Motor Enclosure With Stator	1
43	Motor Top Cap	1
44	Motor Top Cap Screw	2
45	Hex Nut	3