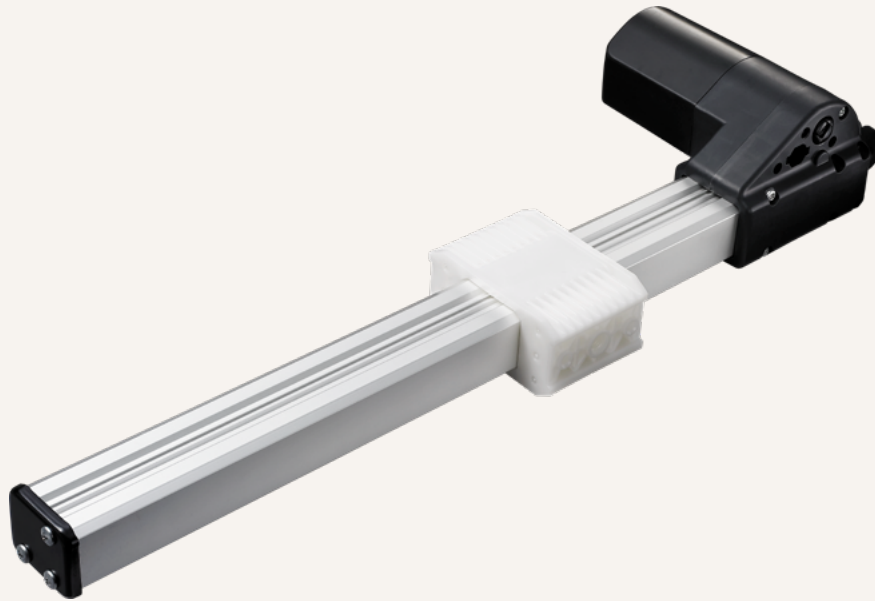


# TA5P

series



## Product Segments

### • Comfort Motion

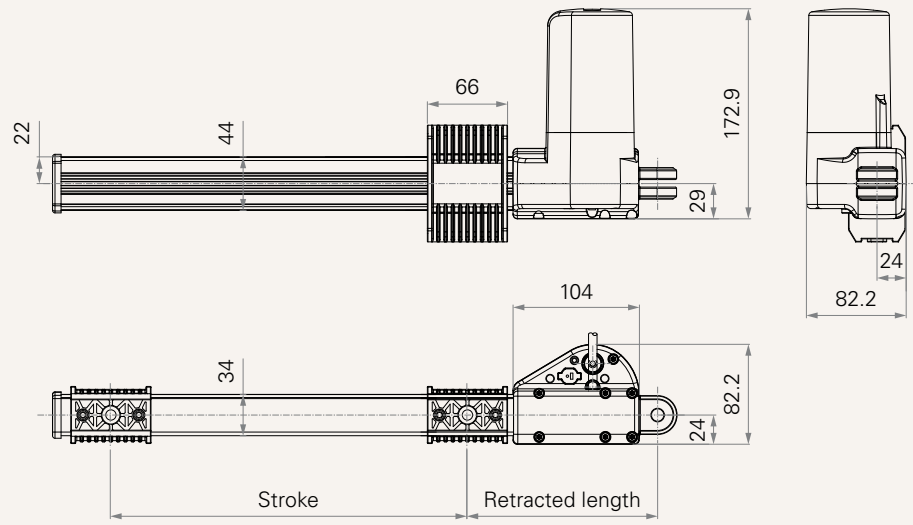
TiMOTION's TA5P series linear actuator retains the same high quality features as the TA5. This linear actuator is designed using a one-piece aluminum outer cover for increased strength and enhanced protection from contaminants. The TA5P utilizes a linear slide to move the load, instead of a standard extension tube. Industry certifications for the TA5P include EMC, and RoHS. It is also available with Hall sensors for position feedback and a special L-shaped mounting bracket.

#### General Features

Voltage of motor	12V DC, 24V DC, or 36V DC
Maximum load	6,000N in push
Maximum load	3,000N in pull
Maximum speed at full load	32.5mm/s (with 750N in a push or pull condition)
Retracted length	≥ 157mm
Color	Black
Certificate	UL962, EN 61000-6-1, EN 61000-6-3
Options	Hall sensors, L-shaped bracket
Specialty designed for recliner	
One-piece design, stronger structure, cable-free	

**Drawing**

Standard Dimensions  
(mm)



## Load and Speed

CODE	Load (N)		Self Locking Force (N)	Typical Current at Rated Load (A)	Typical Speed (mm/s)	
	Push	Pull			No Load 32V DC	With Load 24V DC
<b>Motor Speed (2600RPM, Duty Cycle 10%)</b>						
<b>A</b>	750	750	250	4.5	44.5	23.6
<b>C</b>	5000	3000	2500	5	7.1	3.9
<b>D</b>	6000	3000	4000	5	5.4	2.9
<b>E</b>	3000	3000	1500	4	11	6.2
<b>F</b>	2500	2500	1000	4	15.8	7.8
<b>G</b>	2000	2000	1000	5	22.5	13
<b>H</b>	1200	1200	350	4	33	19
<b>J</b>	3000	3000	3000	4.5	11.1	5.8
<b>Motor Speed (3400RPM, Duty Cycle 10%)</b>						
<b>L</b>	6000	3000	4000	5	7	3.9
<b>M</b>	3000	3000	1500	4.8	14.6	8.2
<b>N</b>	2500	2500	1000	4.5	21	11
<b>O</b>	2000	2000	1000	4.5	29.2	16
<b>P</b>	1200	1200	350	5	43.5	23
<b>Q</b>	3000	3000	3000	5.2	14.5	7.6
<b>S</b>	750	750	250	4.5	58	30
<b>T</b>	5000	3000	2500	5	9.2	4.6

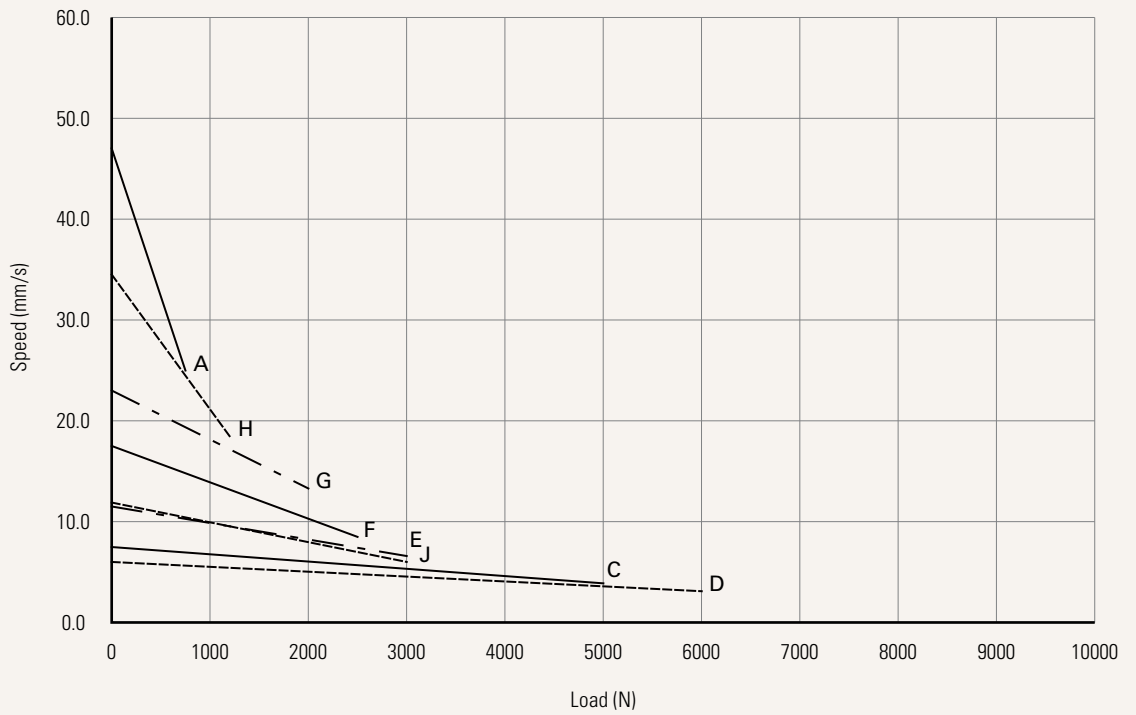
### Note

- 1 Option C / D / E / F / G / J / L / M / N / O / Q / T use iron bearing, others use plastic.
- 2 Please refer to the approved drawing for the final authentic value.
- 3 This self-locking force level is reached only when a short circuit is applied on the terminals of the motor. All the TiMOTION control boxes have this feature built-in.
- 4 Operational temperature range at full performance: +5°C~+45°C
- 5 The current & speed in table are tested with 24V DC motor. With a 12V DC motor, the current is approximately twice the current measured in 24V DC. With a 36V DC motor, the current is approximately two-thirds the current measured in 24V DC. Speed will be similar for all the voltages.
- 6 The current & speed in table are tested when the actuator is extending under push load.
- 7 The current & speed in table and diagram are tested with TiMOTION control boxes, and there will be around 10% tolerance depending on different models of the control box. (Under no load condition, the voltage is around 32V DC. At rated load, the voltage output will be around 24V DC)

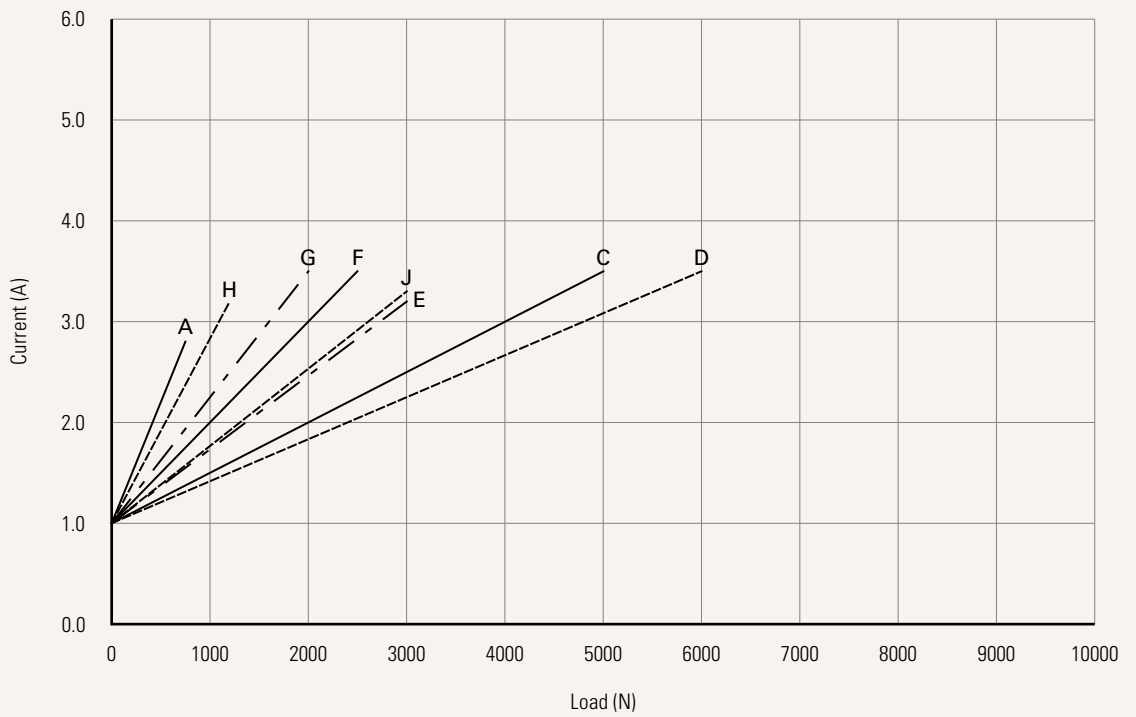
**Performance Data (24V DC Motor)**

Motor Speed (2600RPM, Duty Cycle 10%)

Speed vs. Load



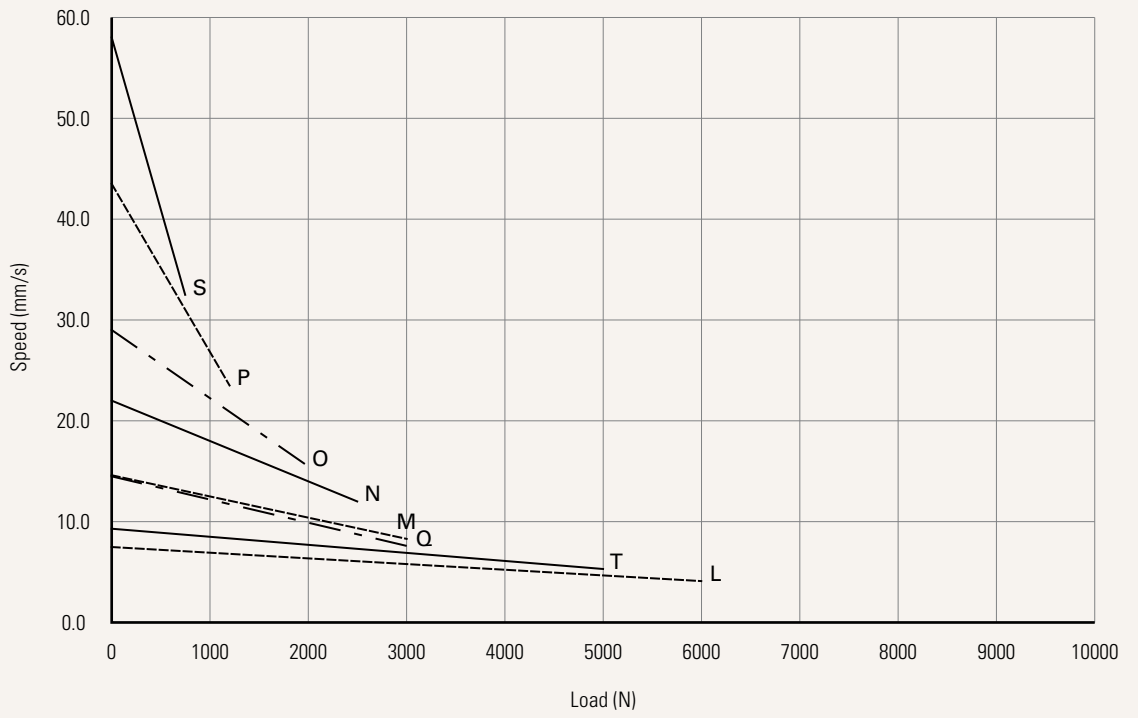
Current vs. Load



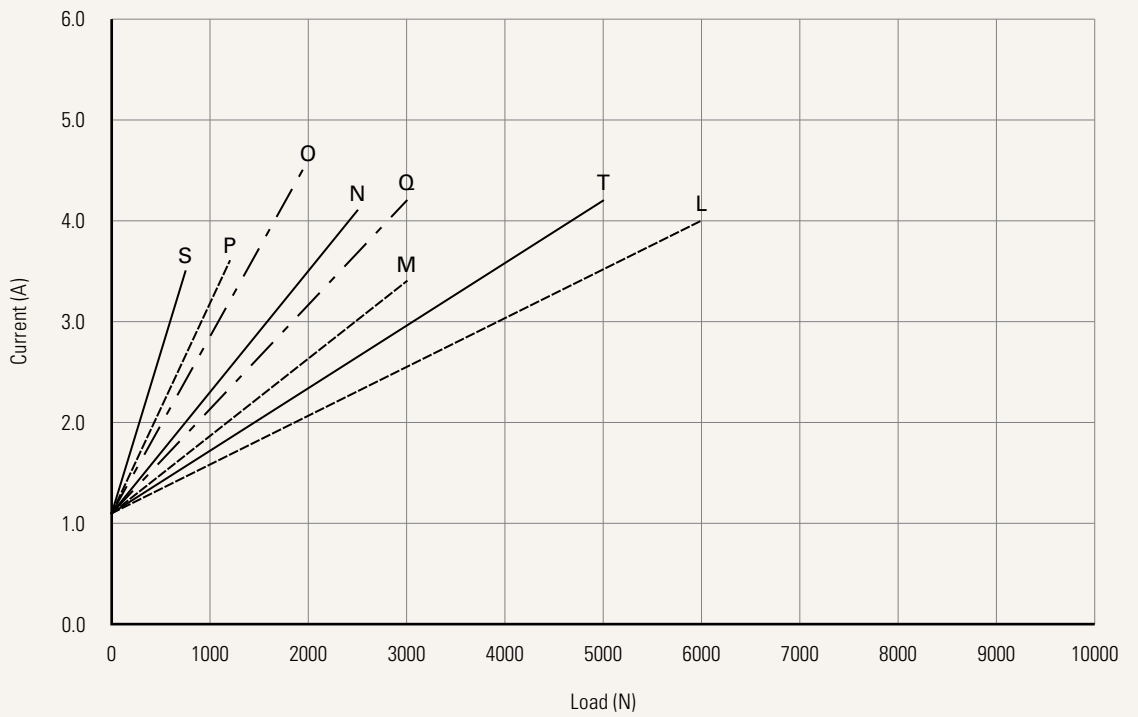
**Performance Data (24V DC Motor)**

Motor Speed (3400RPM, Duty Cycle 10%)

Speed vs. Load



Current vs. Load



<b>Voltage</b>	1 = 12V DC	2 = 24V DC	3 = 36V DC
<b>Load and Speed</b>	<a href="#">See page 3</a>		
<b>Stroke (mm)</b>			
<b>Retracted Length (mm)</b>	≥ 157		
<b>L-Shaped Bracket on The Front</b>	0 = Without	1 = With	
<b>Functions for Limit Switches</b> <a href="#">See page 7</a>	1 = Two switches at full retracted / extended positions to cut current	3 = Two switches at full retracted / extended positions to send signal	4 = Two switches at full retracted / extended positions to send signal + third one in between to send signal
	2 = Two switches at full retracted / extended positions to cut current + third one in between to send signal		
<b>Output Signal</b>	0 = Without	2 = Hall sensor * 2	
<b>Plug</b> <a href="#">See page 7</a>	1 = DIN 6P, 90°	2 = Tinned leads	
<b>Cable Length (mm)</b>	0 = Without (for direct cut system, no cable)	2 = Straight, 750	5 = Straight, 1500
	1 = Straight, 500	3 = Straight, 1000	6 = Straight, 2000
		4 = Straight, 1250	7 = Curly, 200
			8 = Curly, 400
<b>Slot Position on Outer Tube</b>	1 = Front	2 = Reverse	

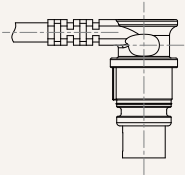
## Functions for Limit Switches

### Wire Definitions

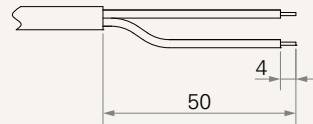
CODE	Pin					
	● 1 (Green)	● 2 (Red)	○ 3 (White)	● 4 (Black)	● 5 (Yellow)	● 6 (Blue)
1	extend (VDC+)	N/A	N/A	N/A	retract (VDC+)	N/A
2	extend (VDC+)	N/A	middle switch pin B	middle switch pin A	retract (VDC+)	N/A
3	extend (VDC+)	common	upper limit switch	N/A	retract (VDC+)	lower limit switch
4	extend (VDC+)	common	upper limit switch	medium limit switch	retract (VDC+)	lower limit switch

### Plug

1 = DIN 6P, 90°



2 = Tinned leads



### Terms of Use

The user is responsible for determining the suitability of TiMOTION products for a specific application. TiMOTION products are subject to change without prior notice.