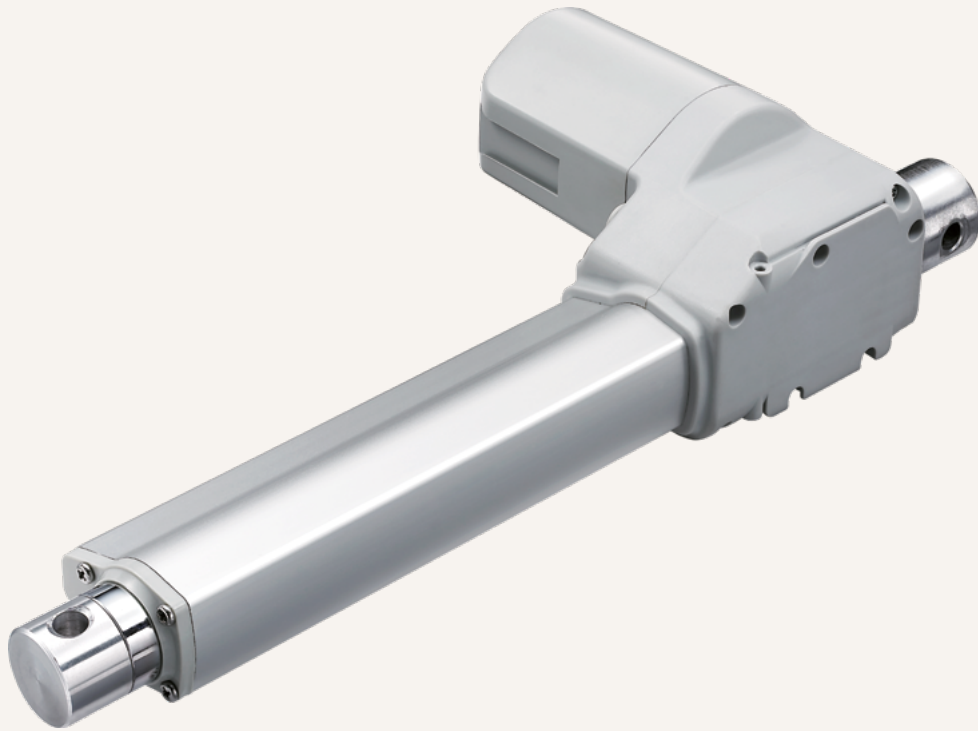


TA10

series



Product Segments

- **Care Motion**

TiMOTION's TA10 series linear actuator is primarily used in the medical market. This actuator series handles high loads and is designed with a manual crank attachment. If necessary, medical staff will be able to easily operate the manual crank to adjust the patient bed. In addition, this linear actuator is available with an optional IP54 or 66 rating.

General Features

Voltage of motor	12V DC, 24V DC, 36V DC, or 24V DC (UL)
Maximum load	6,000N in push
Maximum load	4,000N in pull
Maximum speed at full load	7.6mm/s (with 3,500N in a push or pull condition)
Minimum installation dimension	≥ Stroke + 188mm
Color	Black or grey
Protection class	Up to IP66
Certificate	IEC60601-1, ES60601-1
Option	Hall sensor(s)
Operational temperature range	+5°C~+45°C
With manual crank function	

Load and Speed

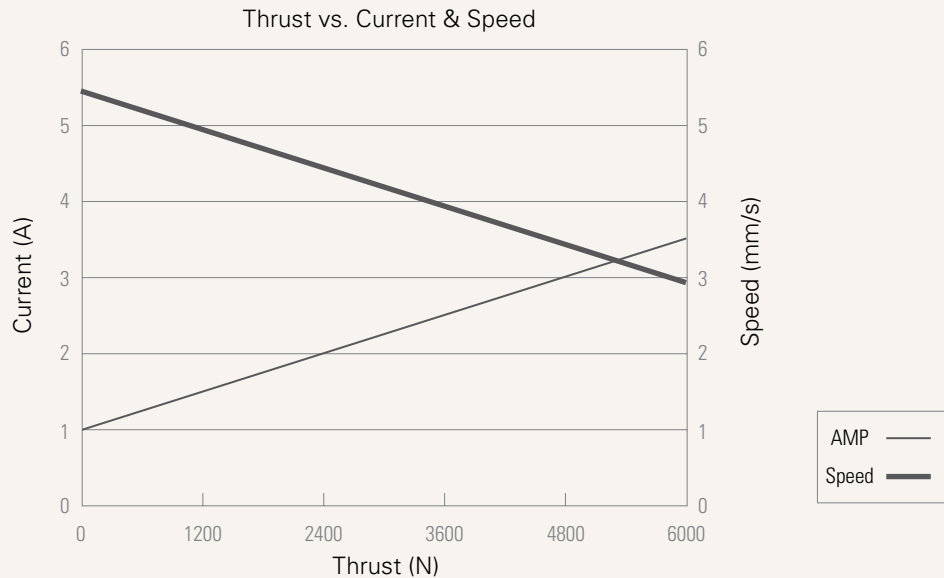
CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (32V DC) mm/s	Rated Load (24V DC) mm/s
Motor speed (2600RPM)						
D	6000	4000	4000	3.5	5.5	2.9
J	3500	3500	3500	3.6	11.1	5.5
Motor speed(3400RPM)						
L	6000	4000	4000	4.2	7.0	3.9
Q	3500	3500	3500	4.6	14.3	7.6
Motor speed(3800RPM)						
X	6000	4000	4000	4.4	8.3	5.2

Note

- 1 The current & speed in table are tested when the actuator is extending under push load.
- 2 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; speed will be similar for both voltages.
- 3 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)

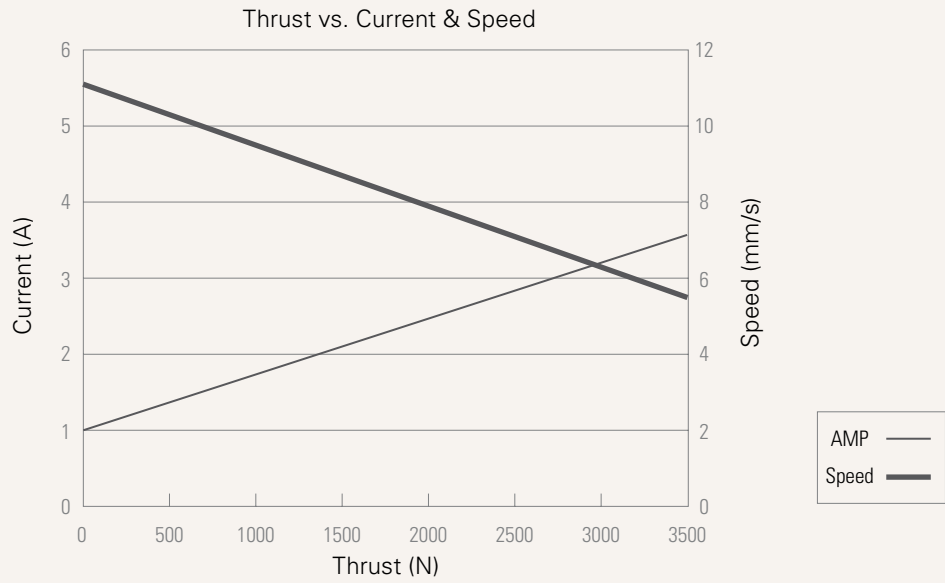
Performance Data

Code D

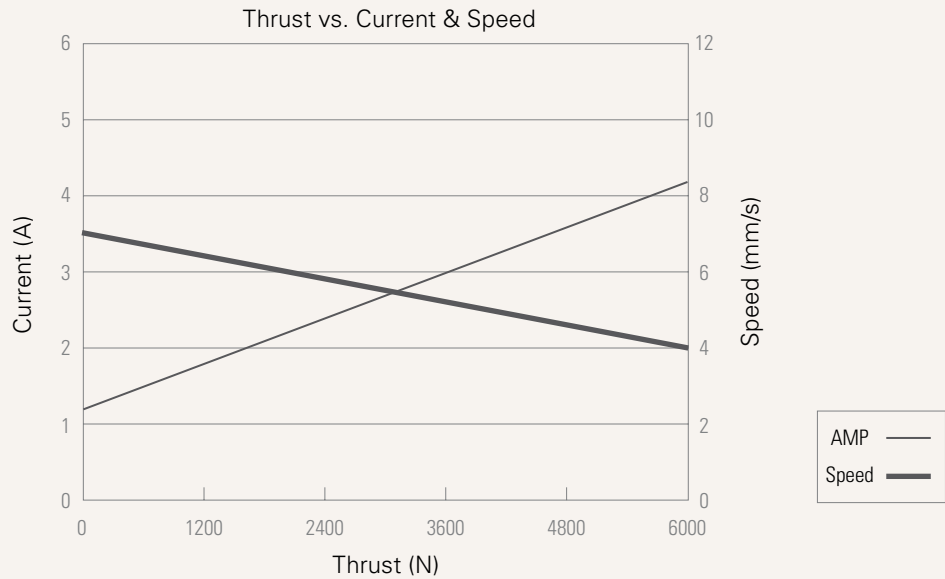


Performance Data

Code J

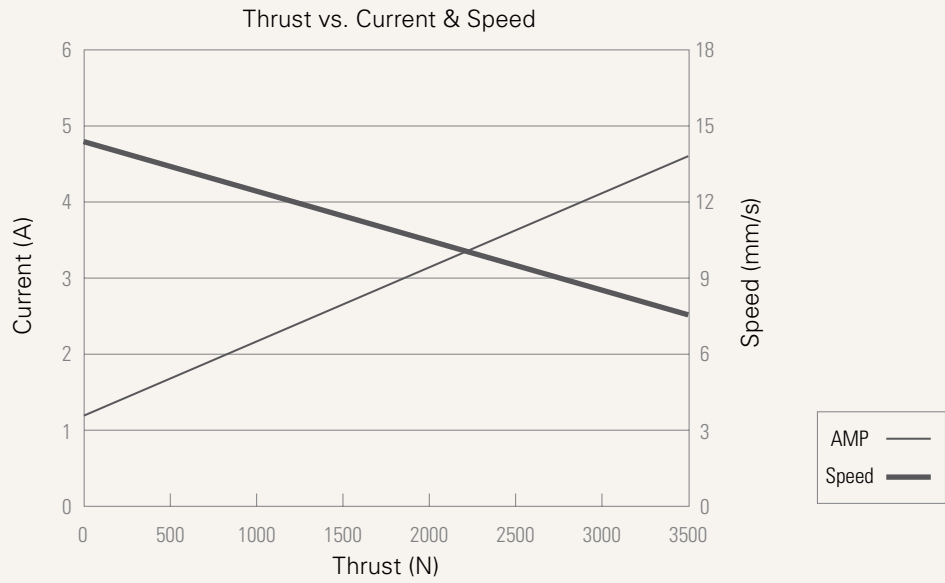


Code L

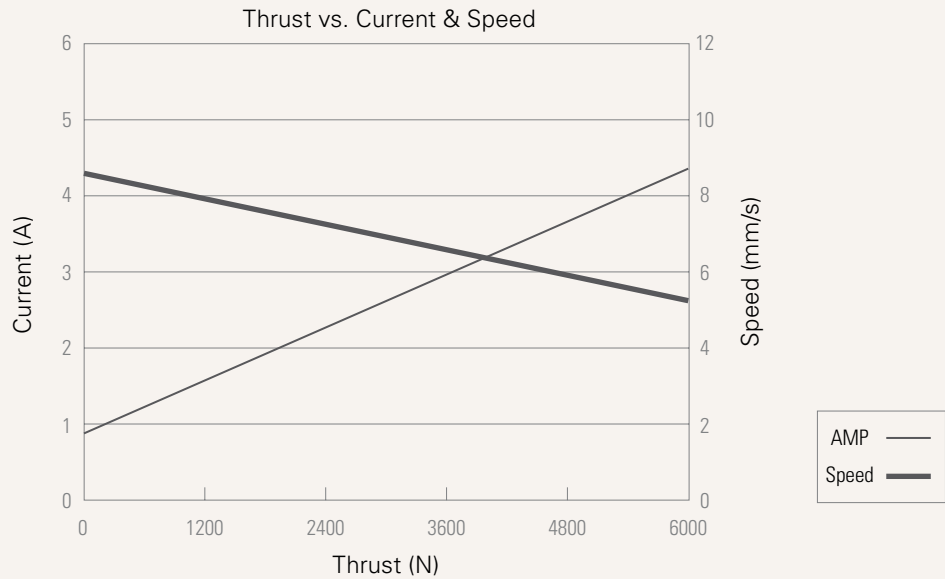


Performance Data

Code Q

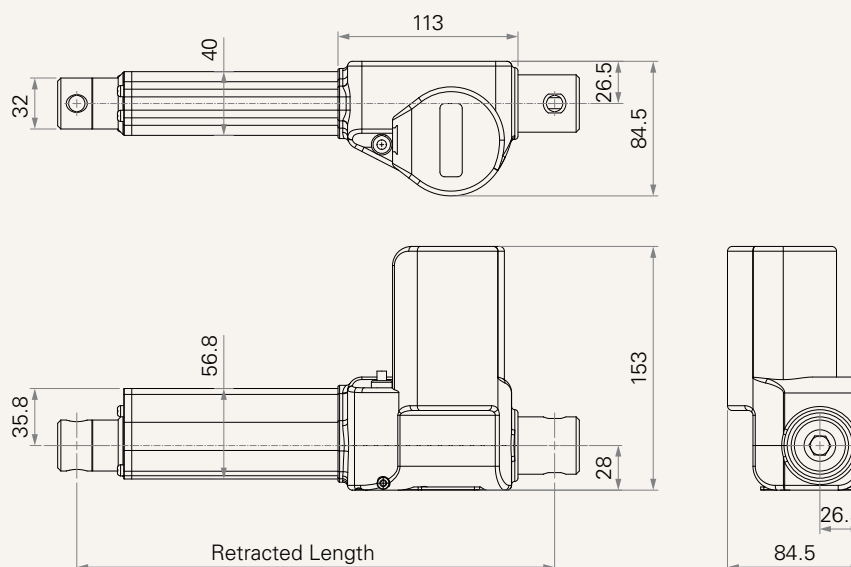


Code X



Drawing

Standard Dimensions
(mm)



Definition of the Additional Retracted Length (X)

TA Series	Safety Stroke Limit (mm)	Additional Stroke (mm)	Additional Invalid Length (X) (mm)
TA10	300	0 < additional stroke ≤ 50	5
TA10 (6,000N)	200	0 < additional stroke ≤ 50	5

Note

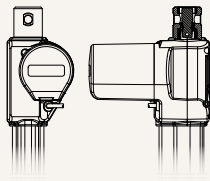
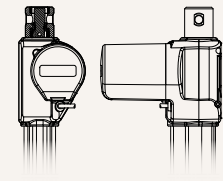
- 1 This additional retracted length brings additional safety to the actuator and for each additional 50mm of stroke above 200mm (TA10 with 6,000N in push), we must add 5mm of additional retracted length. For example, if the TA10's stroke is 201mm, X equals 5mm; if the TA10's stroke is 467mm, X equals $6 * 5 = 30$ mm.

Wire Definitions

CODE*	Pin	1	2	3	4	5	6
		● (green)	● (red)	○ (white)	● (black)	● (yellow)	● (blue)
1	extend (VDC+)	N/A	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	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	

Note

- * See ordering key - functions for limit switches

Voltage	1 = 12V	2 = 24V	3 = 36V	5 = 24V, UL
Load and Speed	See page 2.			
Stroke (mm)				
Retracted Length (mm)	Stroke+188mm (for front attachment 1, 2) Note : before selecting retracted length, please refer to the additional retracted length chart (page 5)			
Rear Attachment	1 = Casting hand crank rear attachment, hole 10.2mm		2 = Casting hand crank rear attachment, hole 12.2mm	
Front Attachment	1 = Casting, width 32mm, hole 10.2mm 2 = Casting, width 32mm, hole 12.2mm		A = Customized	
Direction of Rear Attachment (Counterclockwise)	1 = 0° 		2 = 90° 	
Color	1 = Black	2 = Grey (Pantone 428C)		
IP Protection	1 = Without	2 = IP54	3 = IP66	
Functions for Limit Switches	1 = Two switches at the retracted/extended positions to cut current 2 = Two switches at the retracted/extended positions to cut current with the third one in between to send signal		3 = Two switches at the retracted/extended positions to send signal 4 = Two switches at the retracted/extended positions and the third one in between to send signal A = Customized	
Output Signals	0 = Without	1 = One Hall sensor	2 = Two Hall sensors	
Plug	1 = TiMOTION's standard 6pin plug		2 = Tinned leads	A = Customized
Cable Length	0 = Straight, 100mm 1 = Straight, 500mm 2 = Straight, 750mm	3 = Straight, 1000mm 4 = Straight, 1250mm 5 = Straight, 1500mm	6 = Straight, 2000mm 7 = Coiled, 200mm 8 = Coiled, 400mm	A = Customized

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