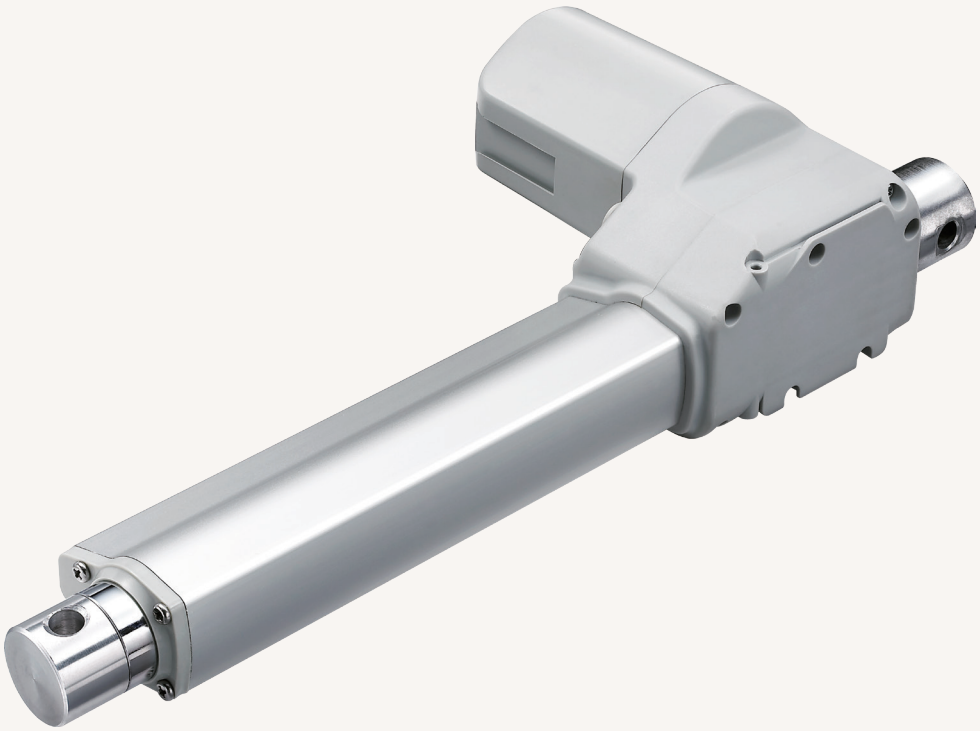
TA10

series



Product Segments

- **Care Motion**
- **Industrial 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
Option	Hall sensor(s)
Certificate	ES60601-1, and IEC60601-1 compliant
Operational temperature range	+5°C~+45°C
With manual crank function	

Load and Speed

CODE	Rated Load PUSH N	Rated Load PULL N	Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed No Load (32V DC) mm/s	Typical Speed 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

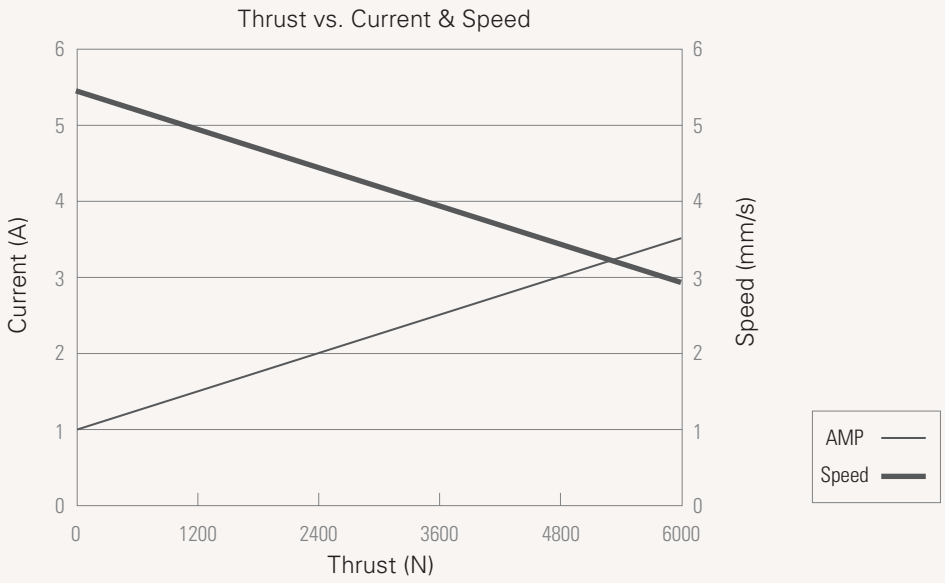
Note

1 The above are the speed and current figures under pushing condition.

2 Speed would be the same if with 12V motor, but with double current consumption comparing 24V motor.

Performance Data

Code D

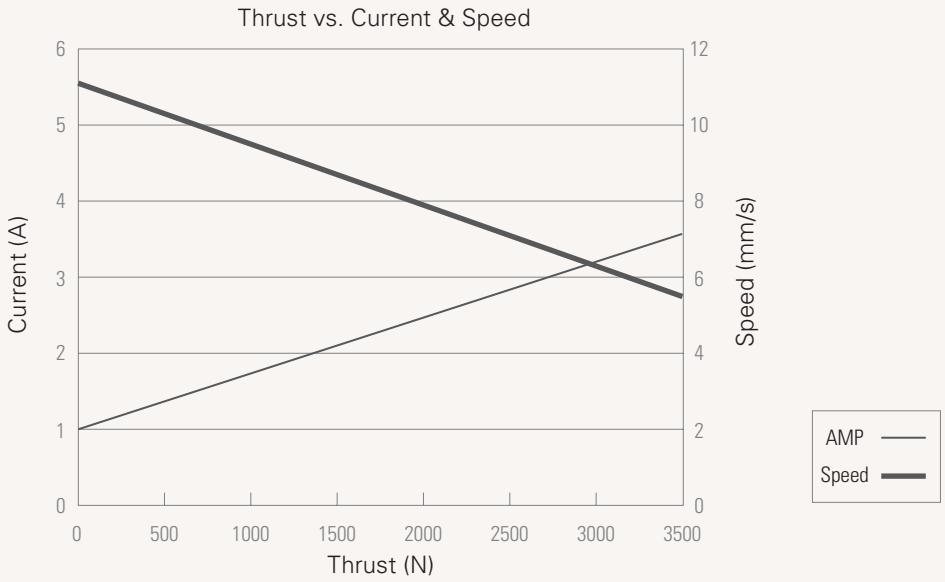


Note

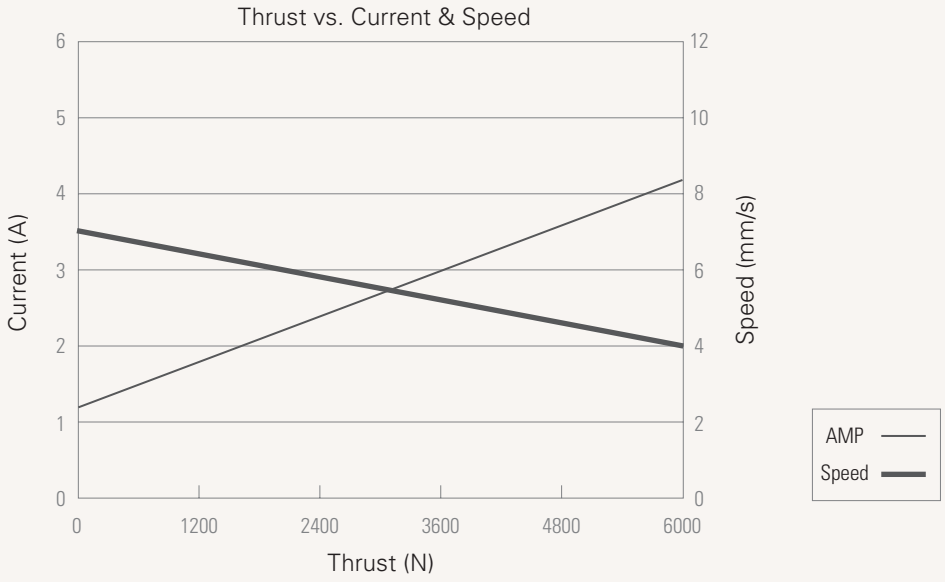
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code J



Code L

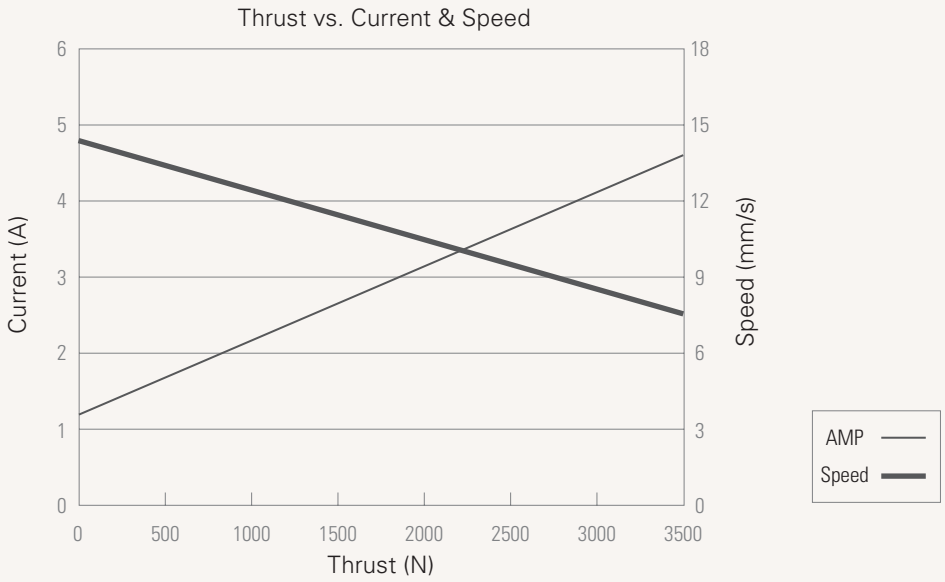


Note

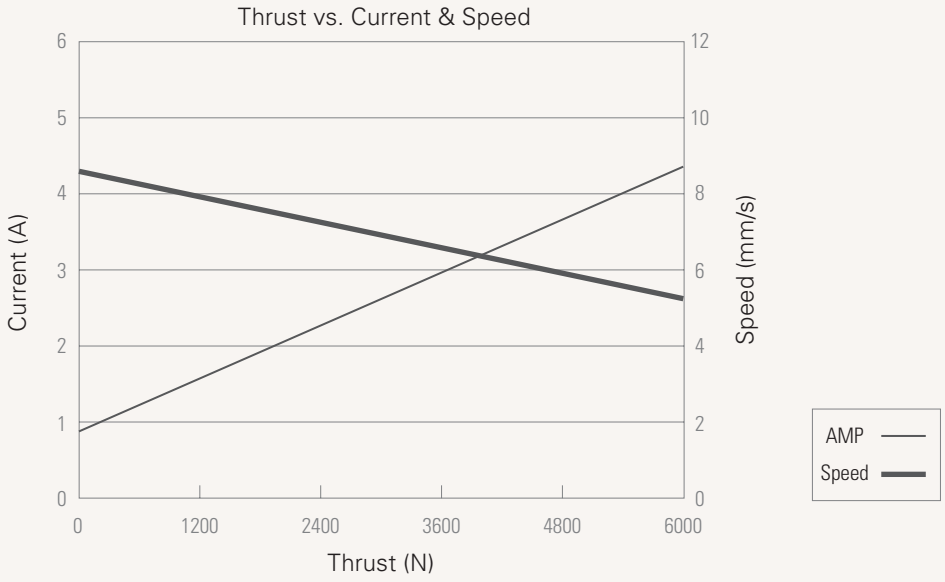
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code Q



Code X

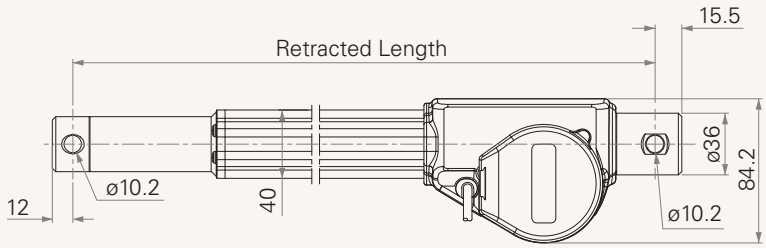


Note

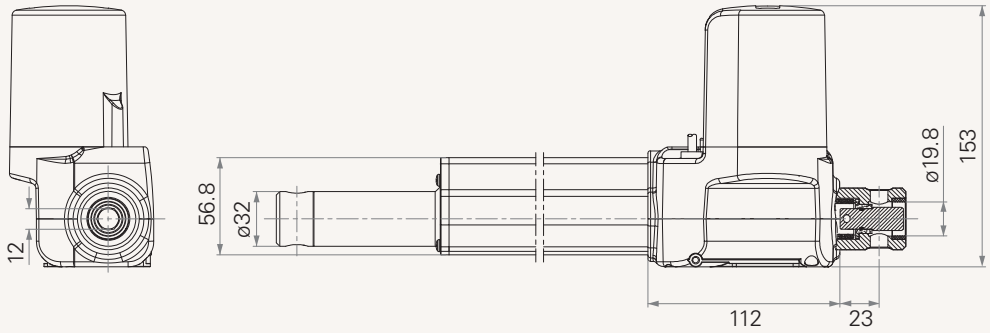
1 The performance data in the curve charts shows theoretical value only.

Drawing

Standard Dimensions
(mm)



Drawing with Manual Operation
(rear attachment)
(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'stroke is 201mm, X equals 5mm; if the TA10'stroke is 467mm, X equals 6*5 = 30mm.

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

Note

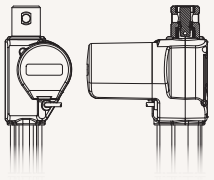
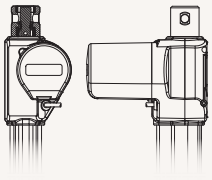
* See ordering key - functions for limit switches

TA10 Ordering Key

TiMOTION

TA10

Version: 20150629-D

	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