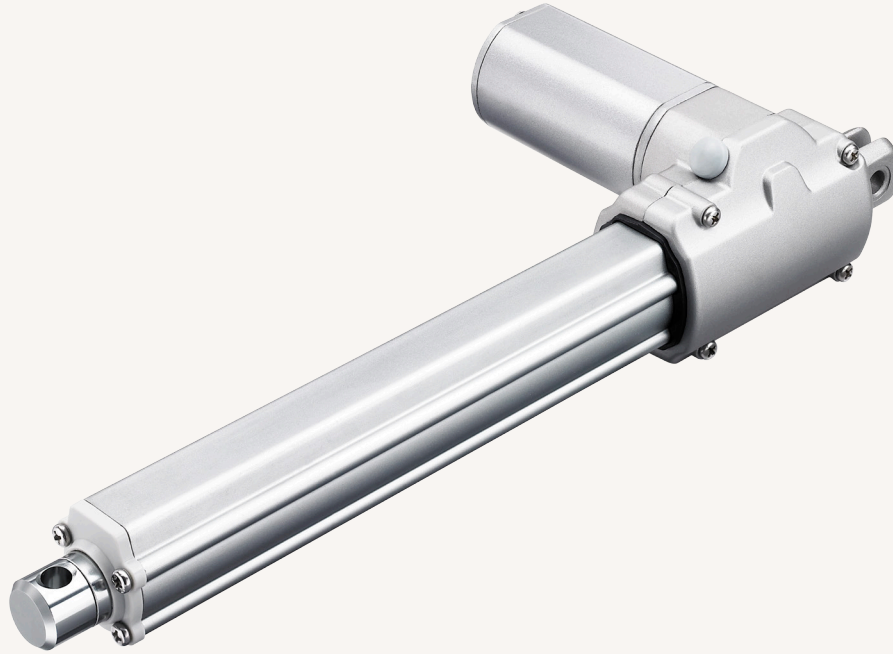


TA4

series



Product Segments

- **Auto Motion**
- **Ergo Motion**

TiMOTION's TA4 series linear actuator is compact, quiet and powerful. It is designed to fit in an area specifically requiring a right angle motor and can be equipped with a Hall sensor for feedback. Industry certifications for the TA4 linear actuator include IEC60601-1, ES60601-1 and RoHS. In addition, the TA4 is available with optional IP rating 54 or 66.

General Features

Voltage of motor	12V DC or 24V DC
Maximum load	3,500N in push
Maximum load	2,000N in pull
Maximum speed at full load	17.0mm/s (with 800N in a push or pull condition)
Minimum installation dimension	Stroke+140mm
Color	Silver
Protection class	Up to IP66
Certificate	IEC60601-1, ES60601-1, and RoHS
Operational temperature range	+5°C~+45°C
Option	Hall sensor(s)
Low noise	

Load and Speed

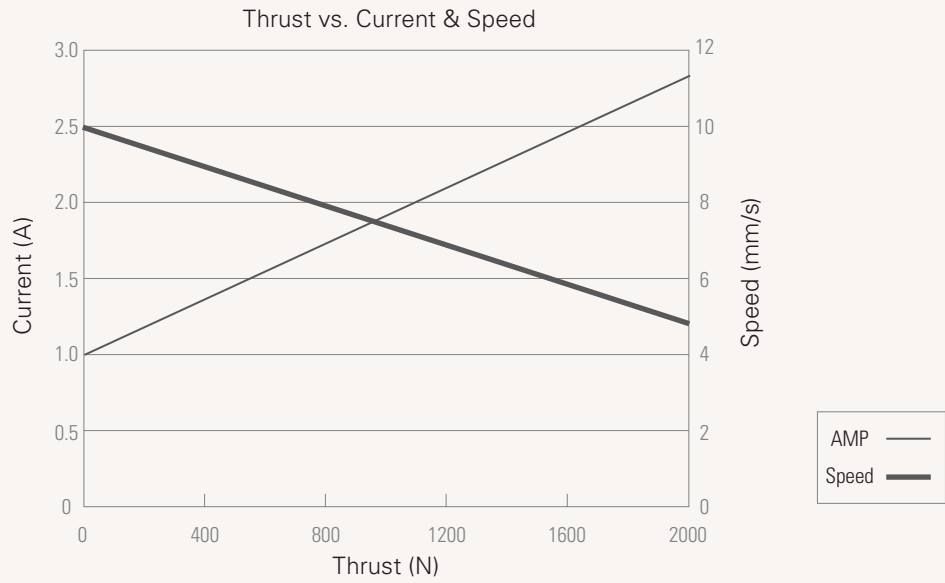
CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (32V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (4100RPM)						
A	2000	2000	1500	2.8	10.0	4.8
B	1500	1500	800	2.8	14.0	6.0
C	1000	1000	300	3.2	27.0	11.0
D	800	800	200	3.2	40.0	17.0
E	3500	2000	3500	3.2	6.5	3.0
Motor Speed (3800RPM)						
G	2500	2000	2500	2.8	9.3	5.2
H	2000	2000	1000	3.0	13.2	6.9
I	1500	1500	500	4.0	26.4	10.8
J	3500	2000	3500	3.2	5.8	2.8
Motor Speed (3300RPM)						
M	1500	1500	1500	1.8	7.9	3.8
N	1000	1000	800	1.8	11.2	6.1
O	500	500	300	1.8	23.1	14.5
Motor Speed (2200RPM)						
R	1500	1500	1000	1.5	7.8	3.7
S	1000	1000	500	1.5	15.2	6.6
T	800	800	200	1.7	21.5	9.2

Note

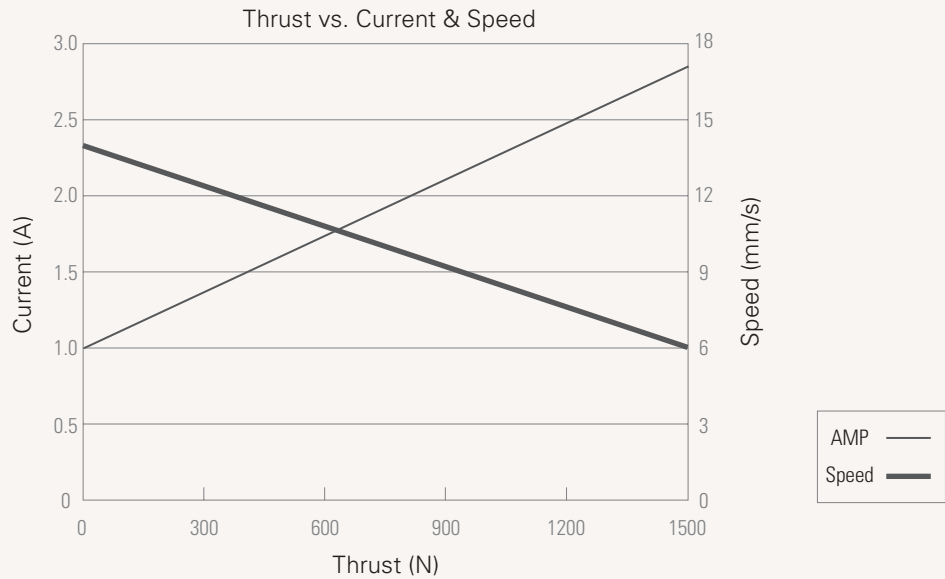
- 1 The left diagram shows the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption.
- 3 The self locking force above need to work with TiMOTION control system.

Performance Data

Code A



Code B

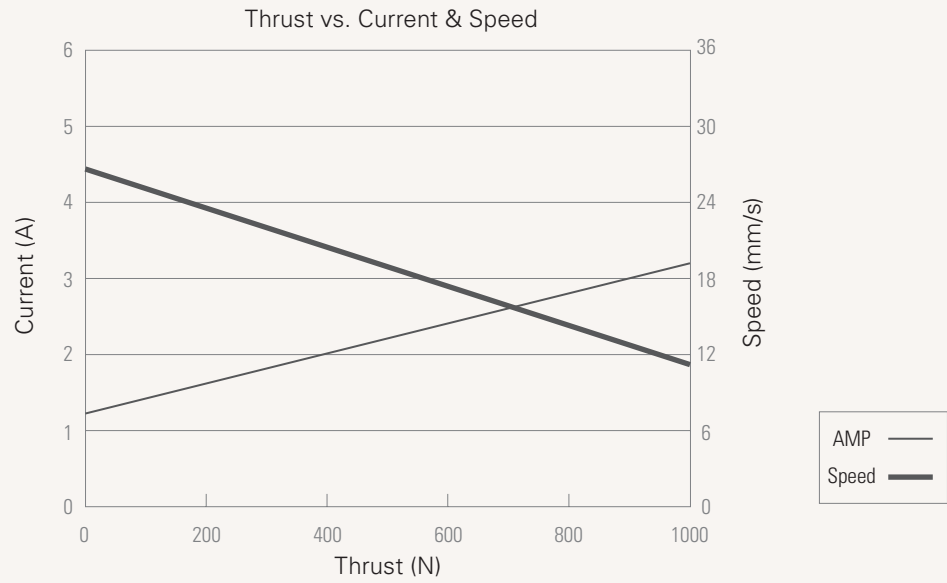


Note

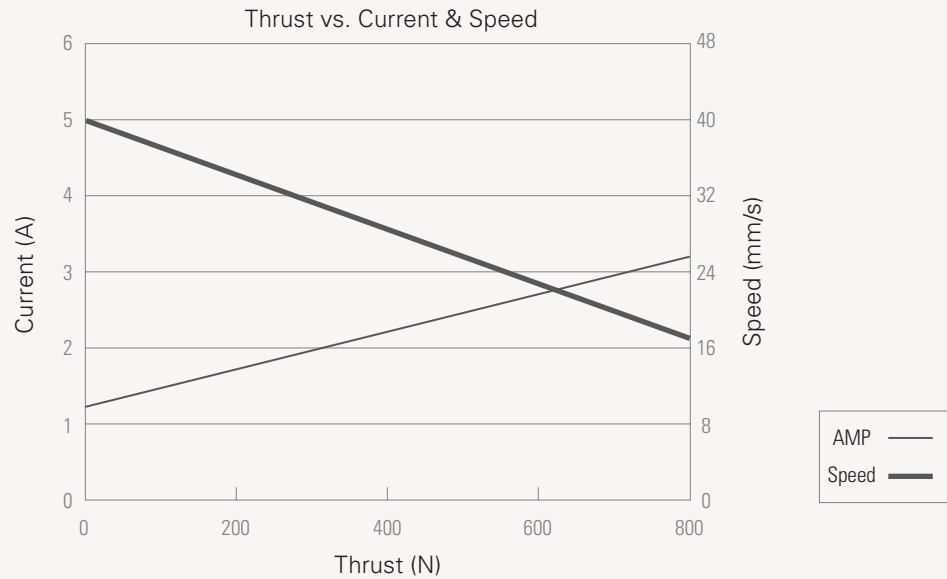
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code C



Code D

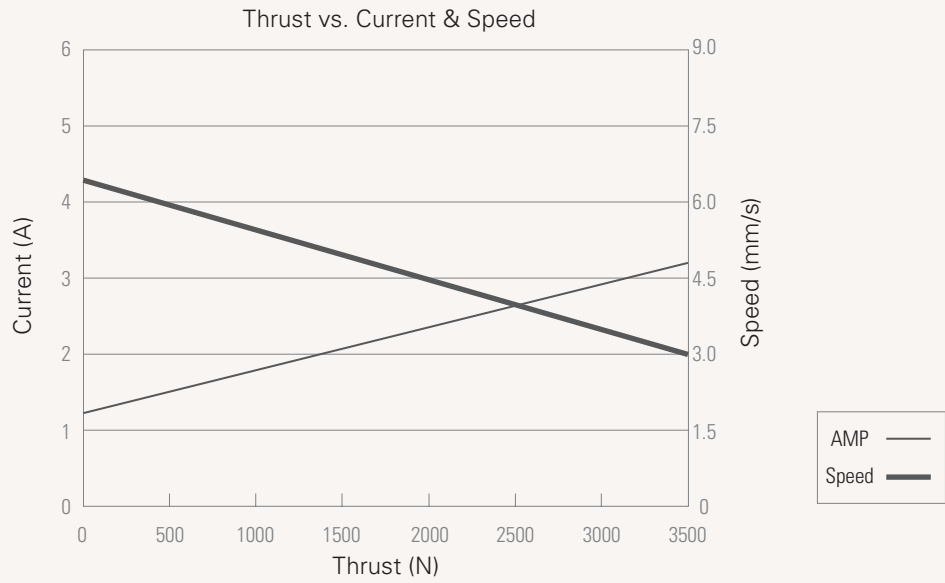


Note

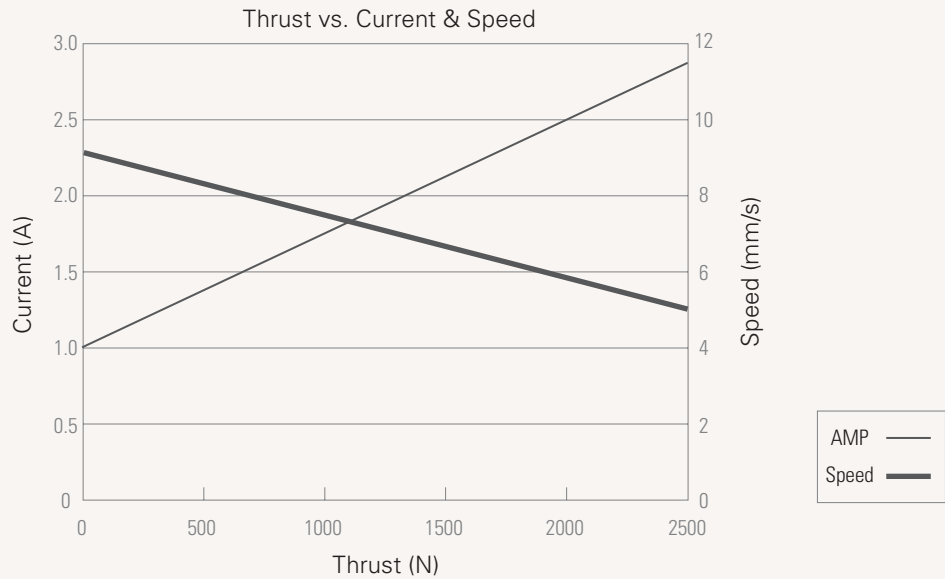
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code E



Code G

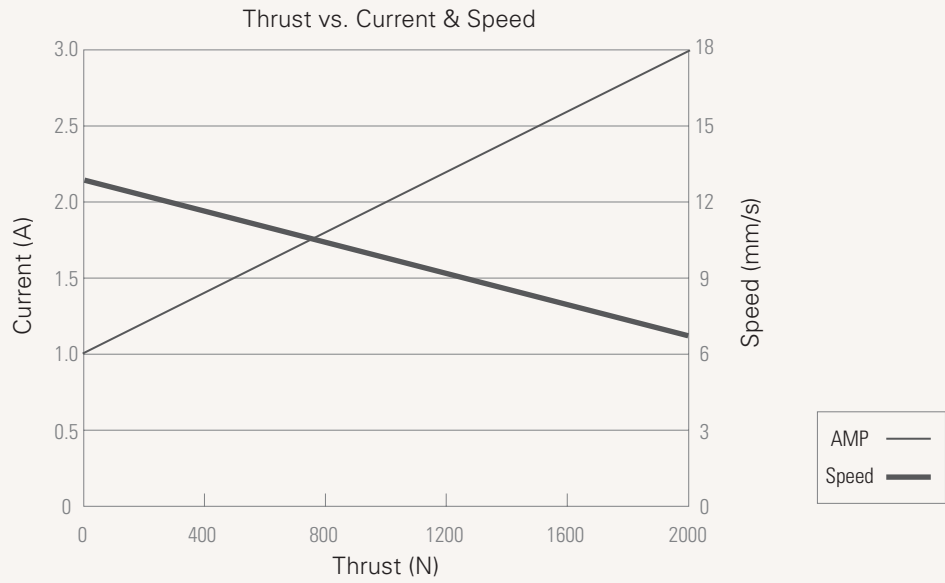


Note

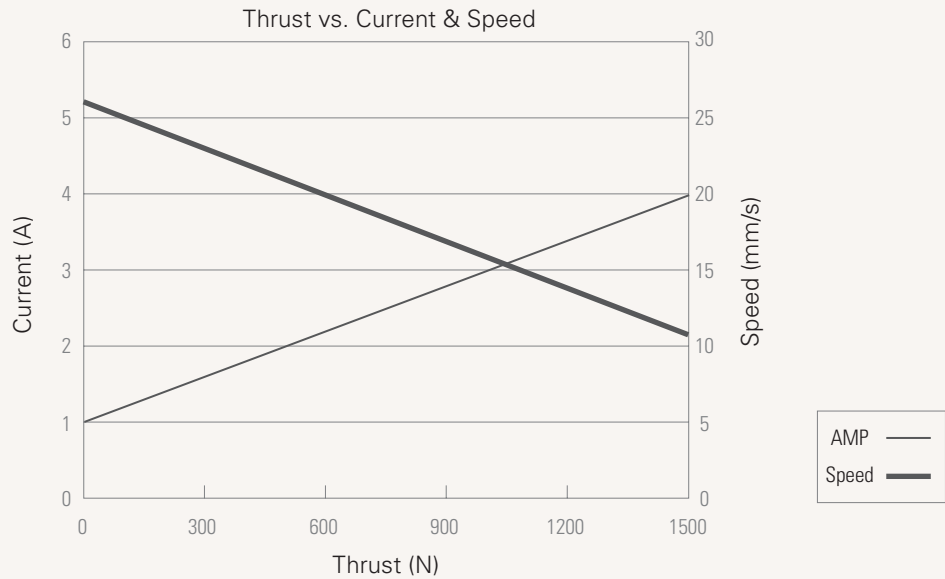
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code H



Code I

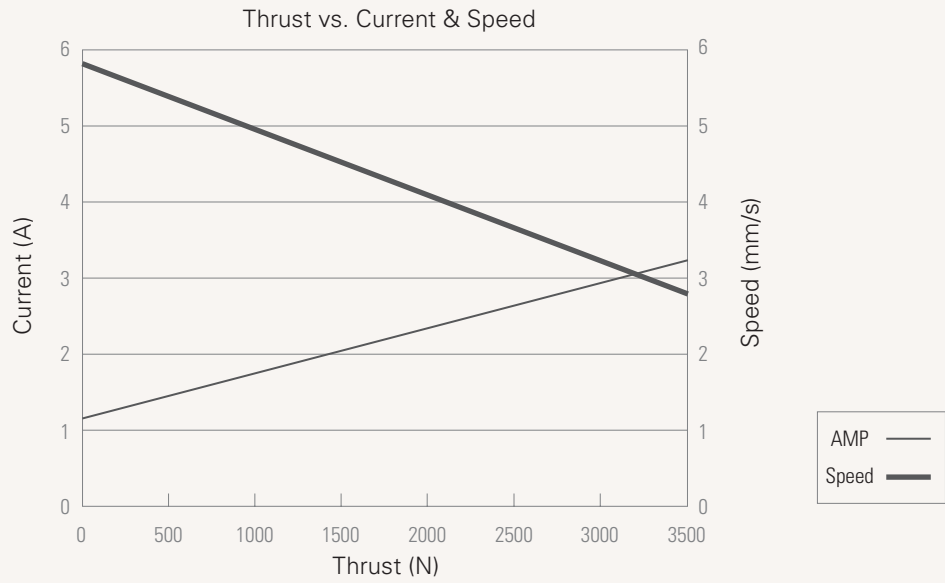


Note

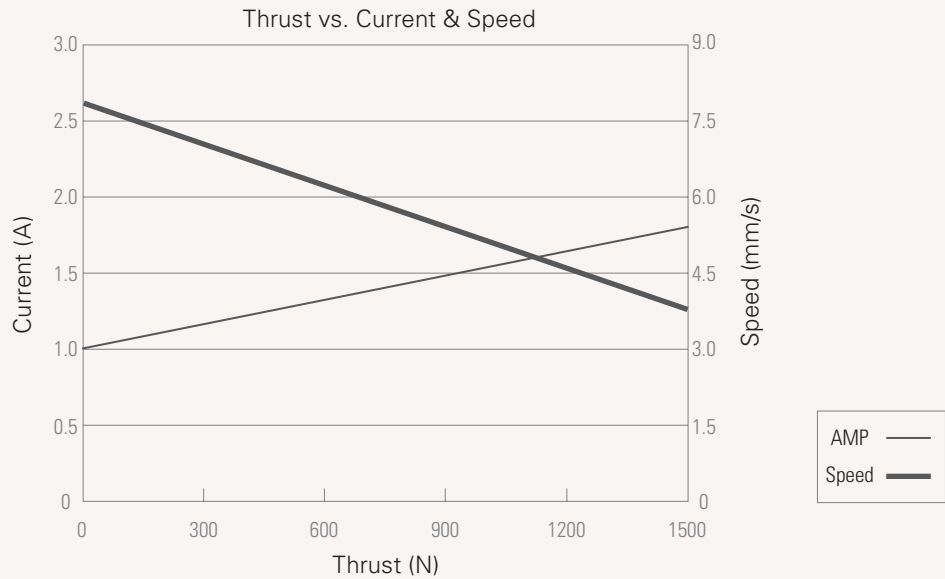
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code J



Code M

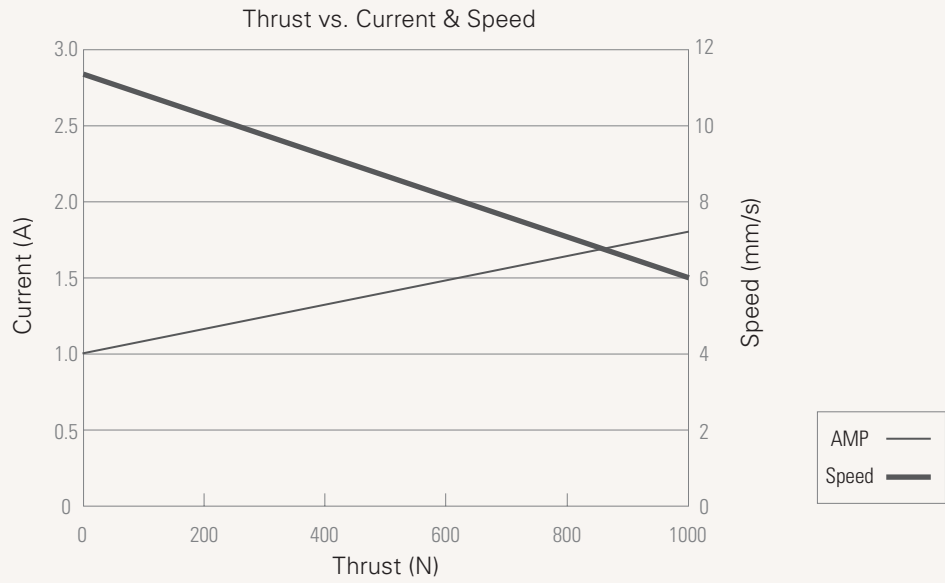


Note

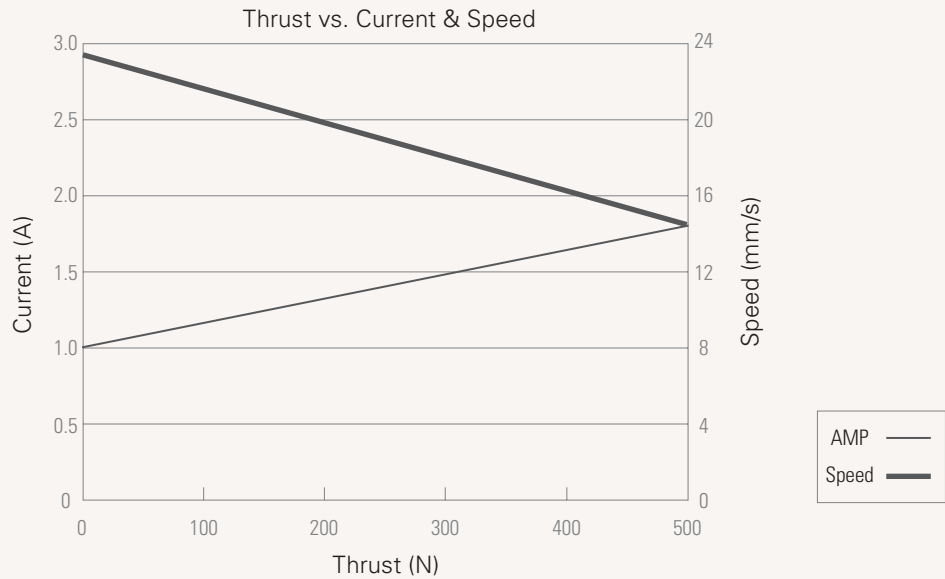
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code N



Code O

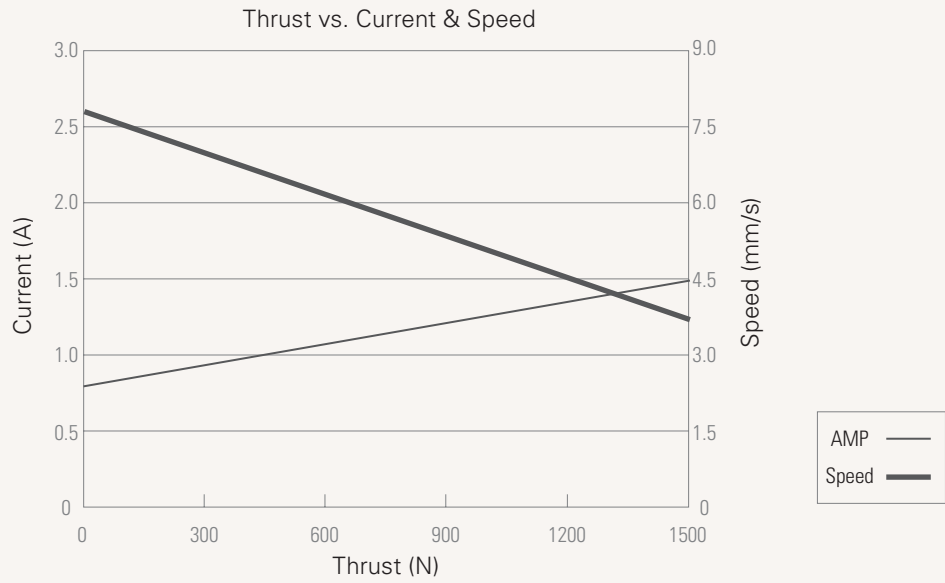


Note

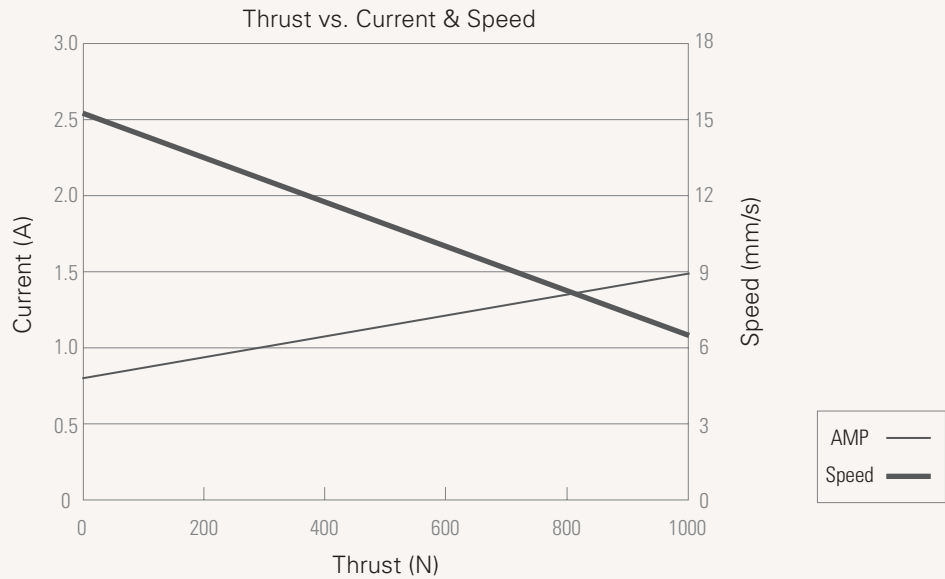
1 The performance data in the curve charts shows theoretical value only.

Performance Data

Code R



Code S

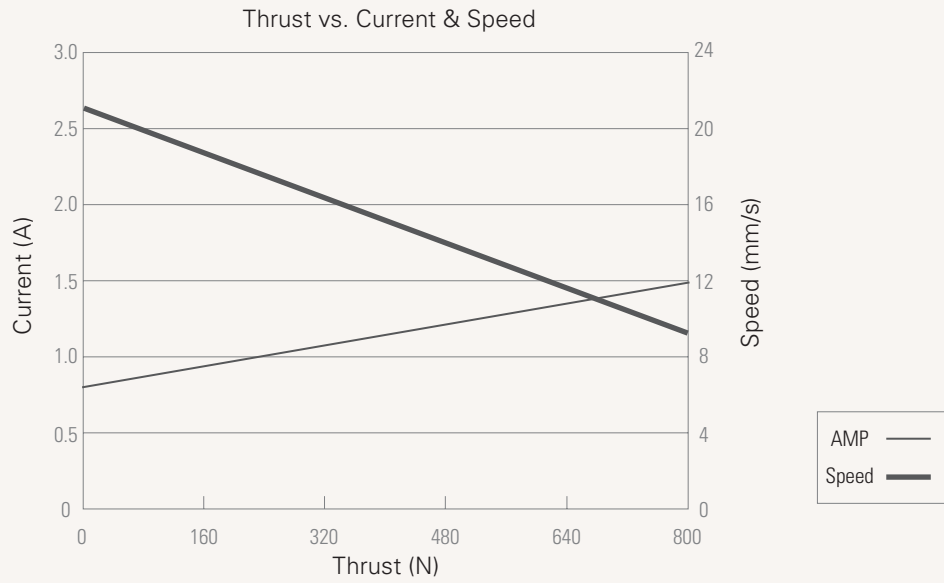


Note

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

Performance Data

Code T

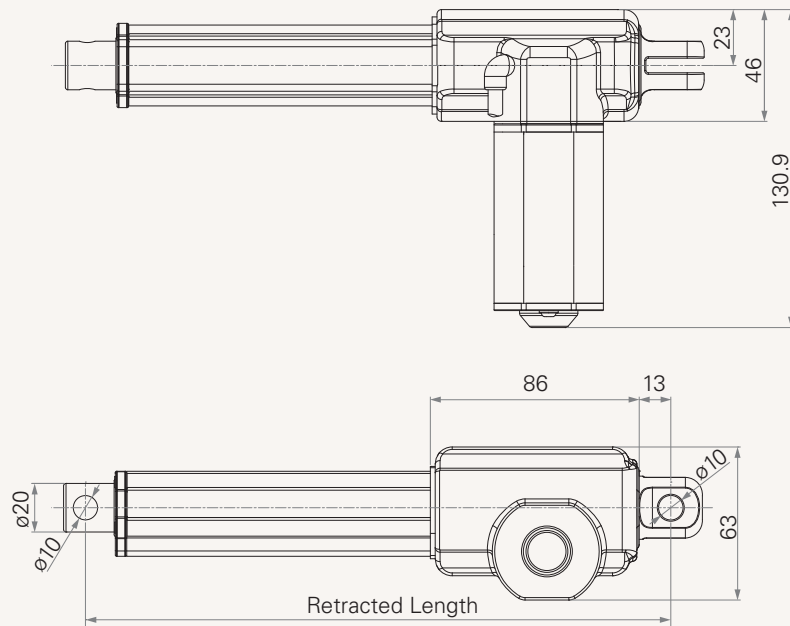


Note

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

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)
TA4	200	0 < additional stroke ≤ 50	5

Note

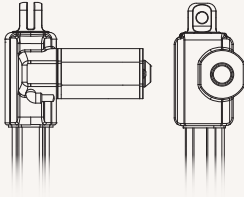
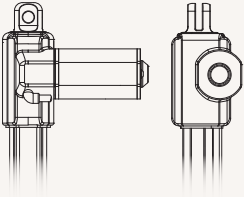
- 1 This additional retracted length brings additional safety to the actuator and for each additional 50mm of stroke above 200mm, we must add 5mm of additional retracted length. For example, if the TA4's stroke is 201mm, X equals 5mm; if the TA4's stroke is 467mm, X equals 6*5 = 30mm.

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	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

TA4			
<input type="checkbox"/>	Voltage	1 = 12V	2 = 24V
<input type="checkbox"/>	Load and Speed	See page 2.	
<input type="checkbox"/>	Stroke (mm)		
<input type="checkbox"/>	Retracted Length (mm)	Stroke+140mm (for front attachment 1, 2)	Stroke+160mm (for front attachment 3, 4, 5)
<input type="checkbox"/>		Note 1 : before selecting retracted length, please refer to the additional retracted length chart (page 11)	
<input type="checkbox"/>		Note 2 : If choosing #J or #E, it must use stainless steel inner tube, and add additional 5mm to retracted length	
<input type="checkbox"/>	Rear Attachment	1 = Slot 6mm, hole 6.4mm 2 = Slot 6mm, hole 8mm	3 = Slot 6mm, hole 10mm A = Customized
<input type="checkbox"/>	Front Attachment	1 = Hole 6.4mm 2 = Hole 8mm 3 = U clevis, slot 6mm, hole 10mm	4 = U clevis, slot 6mm, hole 6.4mm 5 = U clevis, slot 6mm, hole 8mm A = Customized
<input type="checkbox"/>	Direction of Rear Attachment	1 = 0° 	2 = 90° 
<input type="checkbox"/>	IP Protection	1 = Without	2 = IP54
<input type="checkbox"/>	Special Functions for Spindle Sub-Assembly	0 = Without (standard)	2 = Push only
<input type="checkbox"/>	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
<input type="checkbox"/>	Output Signals	0 = Without	4 = One Hall sensor
<input type="checkbox"/>	Plug	1 = TiMOTION's standard DIN 6pin plug	2 = Tinned leads
<input type="checkbox"/>	Cable Length	1 = Straight, 300mm	2 = Straight, 600mm
<input type="checkbox"/>		3 = Straight, 1000mm	A = Customized

Terms of Use

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