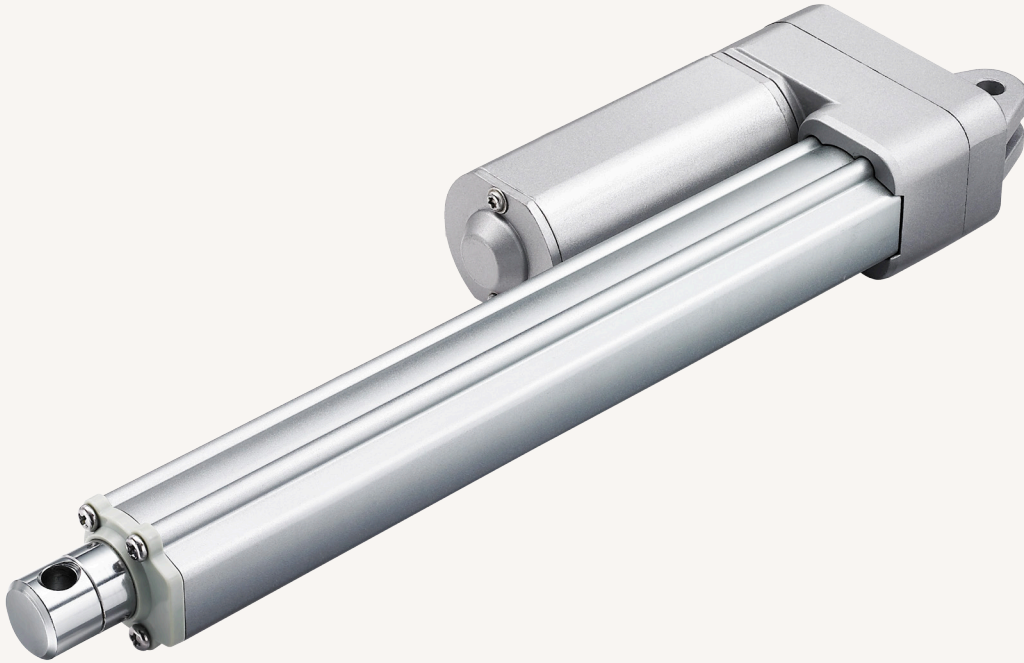


TA16

series



Product Segments

- **Care Motion**
- **Comfort Motion**

TiMOTION's TA16 series linear actuator is similar to the TA2 linear actuator, but is specifically designed for low-noise medical applications where a compact linear actuator is needed. It is available with optional IP66 protection and Hall sensors for position feedback. Certificates for the TA16 include IEC60601-1 and ES60601-1.

General Features

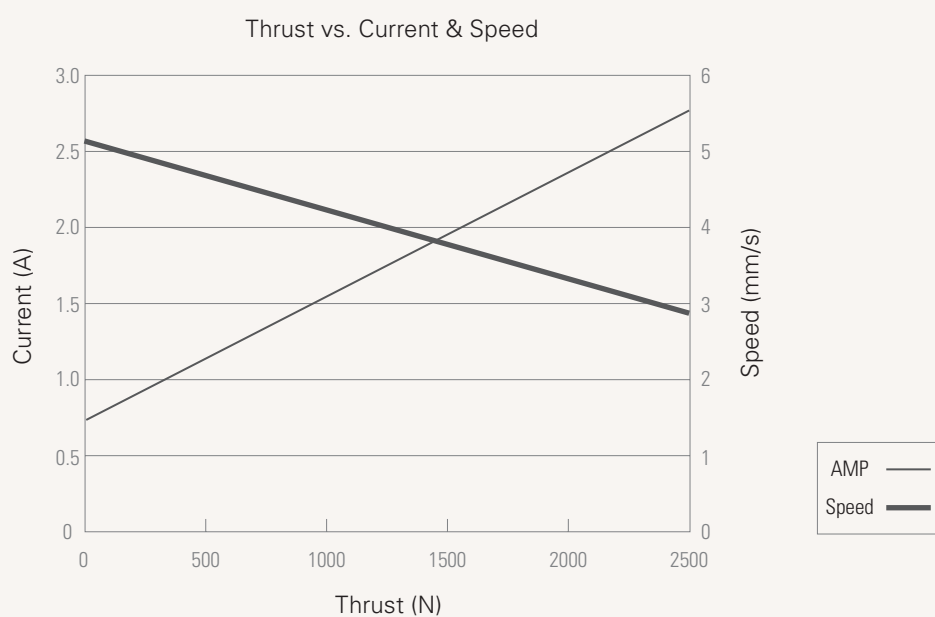
Voltage of motor	12V DC or 24V DC
Maximum load	2,500N in pull/push
Maximum speed at full load	9.4~11.2mm/s (with 1,000N in a push or pull condition)
Minimum installation dimension	Stroke+112mm (without output signals)
Color	Silver
Protection class	Up to IP66
Option	Hall sensor(s)
Certificate	ES60601-1 and IEC60601-1 compliant
Operational temperature range	+5°C~+45°C
With very low noise, small size for easy installation	

Load and Speed

CODE	Rated Load PUSH/PULL N	Self Locking N (PUSH/PULL)	Typical Current at Rated Load (A)	Typical Speed No Load (32V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (3800RPM)					
A	2500	2500	2.8	4.9~5.5	2.5~3.5
B	2000	2000	2.8	7.8~8.8	4.0~5.4
C	1500	1000	2.8	11.2~12.6	6.0~8.0
D	1000	1000	2.8	16.6~18.8	9.4~11.2

Performance Data

Code A

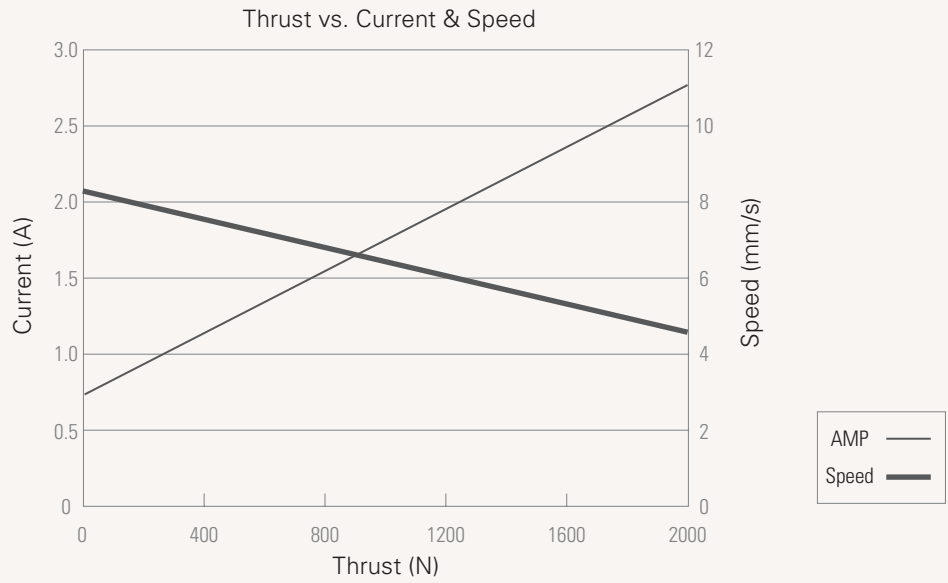


Note

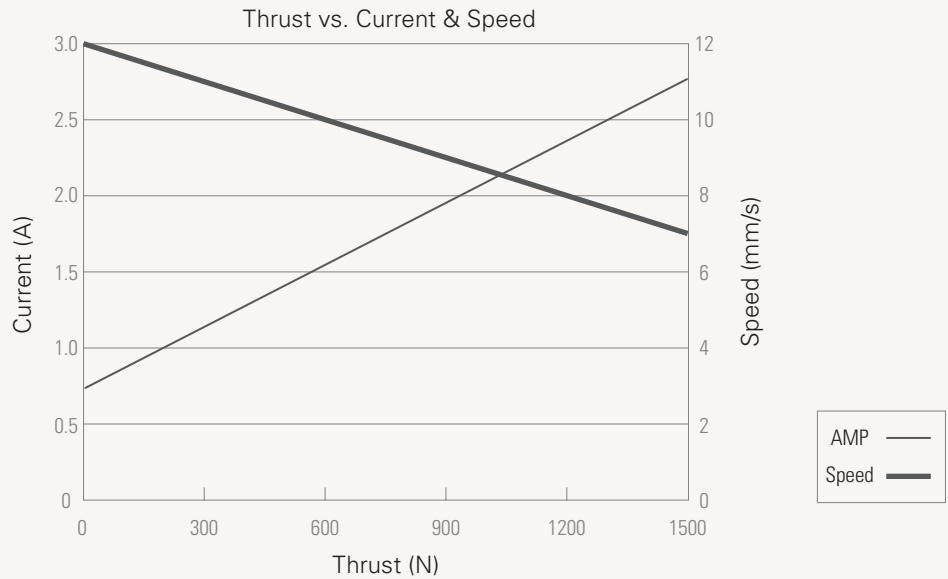
- The performance data in the curve charts shows theoretical value only.

Performance Data

Code B



Code C

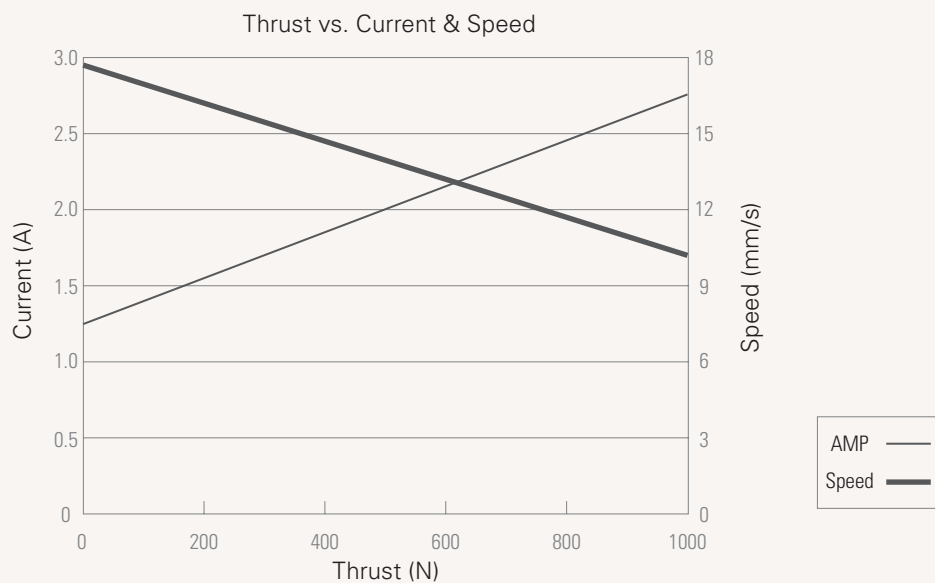


Note

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

Performance Data

Code D

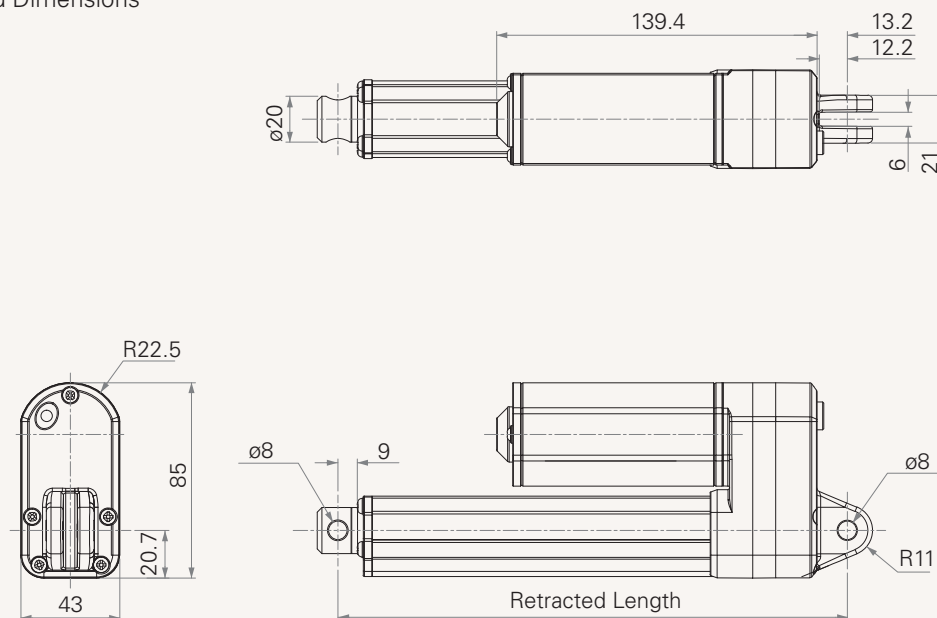


Note

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

Drawing

Standard Dimensions
(mm)



Minimum Retracted Length

Front Attachment Code*	Output Signal	Stroke (mm)			
		$20 \leq \text{stroke} \leq 150$	$151 \leq \text{stroke} \leq 250$	$251 \leq \text{stroke} \leq 350$	$\text{stroke} \geq 351$
1 / 2 / 3	without	stroke + 112	stroke + 120	stroke + 125	stroke + 125 + X
4 / 5 / 6	without	stroke + 122	stroke + 130	stroke + 135	stroke + 135 + X

Note

* See ordering key - front attachment







Definition of the Additional Retracted Length (X)

TA Series	Safety Stroke Limit (mm)	Additional Stroke (mm)	Additional Invalid Length (X) (mm)
TA16	200	$0 < \text{additional stroke} \leq 50$	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 TA16's stroke is 201mm, X equals 5mm; if the TA16's stroke is 467mm, X equals $6 \times 5 = 30\text{mm}$.

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	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

TA16 Ordering Key

TA16

Version: 20141110-E

<div></div>	Voltage	1 = 12V		2 = 24V			
<div></div>	Load and Speed	See page 2.					
<div></div>	Stroke (mm)						
<div></div>							
<div></div>							
<div></div>	Retracted Length (mm)	See page 5. Note : before selecting retracted length, please refer to the additional retracted length chart					
<div></div>							
<div></div>							
<div></div>	Rear Attachment	1 = Hole 6.4mm, slot 6mm		2 = Hole 8mm, slot 6mm		3 = Hole 10mm, slot 6mm	
<div></div>	Front Attachment	1 = Hole 6.4mm 2 = Hole 8mm 3 = Hole 10mm 4 = U clevis, slot 6mm, depth 13mm, hole 6.4mm		5 = U clevis, slot 6mm, depth 13mn, hole 8mm 6 = U clevis, slot 6mm, depth 13mn, hole 10mm A = Customized			
<div></div>	Direction of Rear Attachment	1 = 90° <div><div></div><div></div></div>		2 = 0° <div><div></div><div></div></div>			
<div></div>	IP Protection	1 = Without		2 = IP54		3 = IP66	
<div></div>	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			
<div></div>	Special Functions for Spindle Sub-Assembly	0 = Without (standard)		2 = Standard push only			
<div></div>	Output Signals	0 = Without 1 = POT		4 = One Hall sensor 5 = Two Hall sensors		Note : #1 sample order is available and it needs to add 36mm retracted length	
<div></div>	Plug	1 = TiMOTION's standard DIN 6pin plug		2 = Tinned leads		A = Customized	
<div></div>	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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