

JP7

series



Product Segments

• Industrial Motion

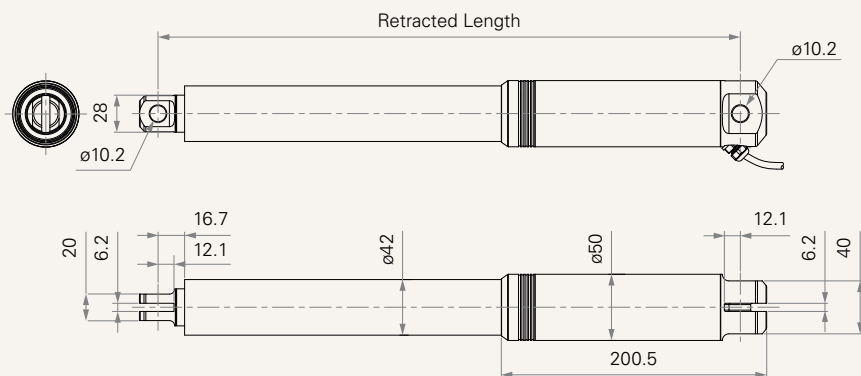
TiMOTION's JP7 series in-line linear actuator incorporates the same design concept as the JP5 and JP6. Tailored for industrial applications demanding heavier loads, it supports a load capacity of up to 4,500N. It is also suitable for product applications that require a compact installation space. Its built-in current control board allows for soft-stop, soft-start, and overcurrent protection. Also, its IP69K (optional) protection ensures it will withstand high temperature, high pressure water jets, and the ingress of dust and other solid contaminants.

General Features

Max. load	4,500N (push/pull)
Max. speed at max. load	4mm/s
Max. speed at no load	19mm/s
Retracted length	≥ Stroke + 255mm
IP rating	IP69K
Stroke	25~1000mm
Output signals	Hall sensors
Voltage	12V DC
Operational temperature range	-10°C~+65°C
Operational temperature range at full performance	+5°C~+45°C
Storage temperature range	-40°C~+85°C

Drawing

Standard Dimensions
(mm)

**Load and Speed**

CODE	Load (N)		Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull		No Load 12V DC	With Load 12V DC	No Load 12V DC	With Load 12V DC
Motor Speed (6300RPM, Duty Cycle 10%)							
B	1000	1000	1000	2.5	5.0	19.0	15.8
C	2000	2000	2000	2.5	6.0	11.5	8.5
D	3000	3000	3000	2.5	8.5	9.0	7.0
Motor Speed (4200RPM, Duty Cycle 10%)							
E	4500	4500	4500	2.5	8.5	7.0	4.0

Note

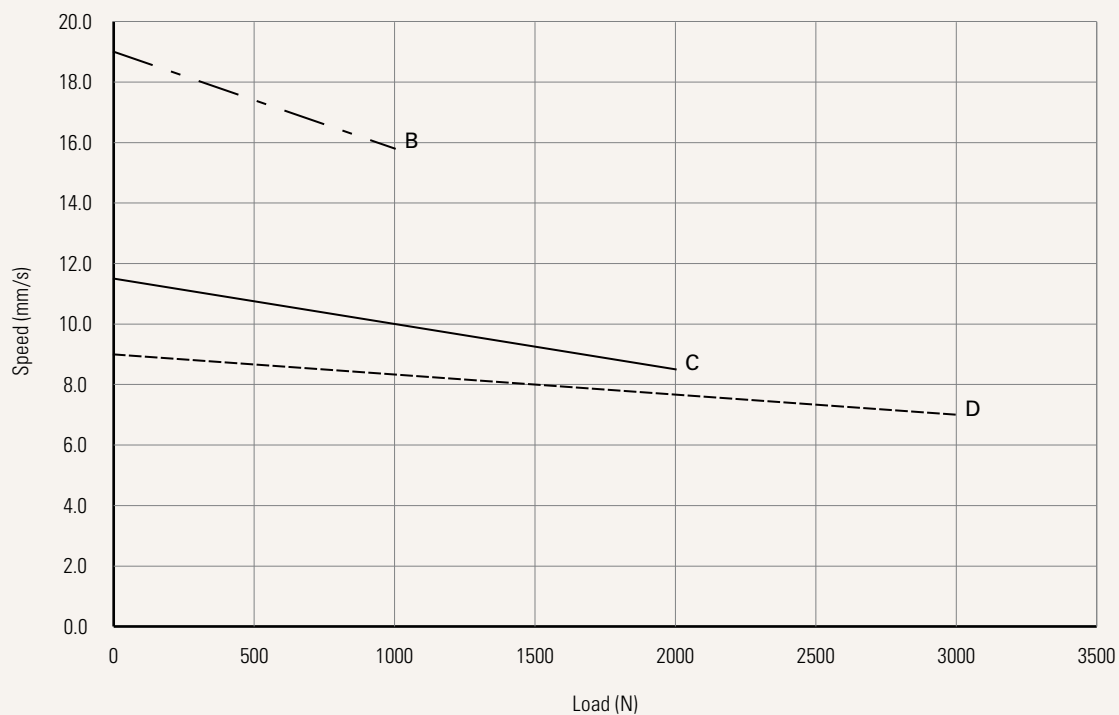
- 1 Please refer to the approved drawing for the final authentic value.
- 2 The current & speed in table are tested with 24V DC motor. With a 12V DC motor, the current is approximately twice the current measured in 24V DC. With a 36V DC motor, the current is approximately two-thirds the current measured in 24V DC. Speed will be similar for all the voltages.
- 3 The current & speed in table are tested when the actuator is extending under push load.
- 4 The current & speed in table and diagram are tested with a stable 24V DC power supply.
- 5 Without load, noise level ≤ 70 dBA (by TiMOTION test standard, ambient noise level ≤ 36 dBA)
- 6 Standard stroke: 25~1000 mm, Max. please refer to the table below

CODE	Load (N)	Max. Stroke (mm)
F, B	≤ 1000	1000
G, C	≤ 2000	800
H, J, D, E	≤ 6000	600
K	≤ 8000	200

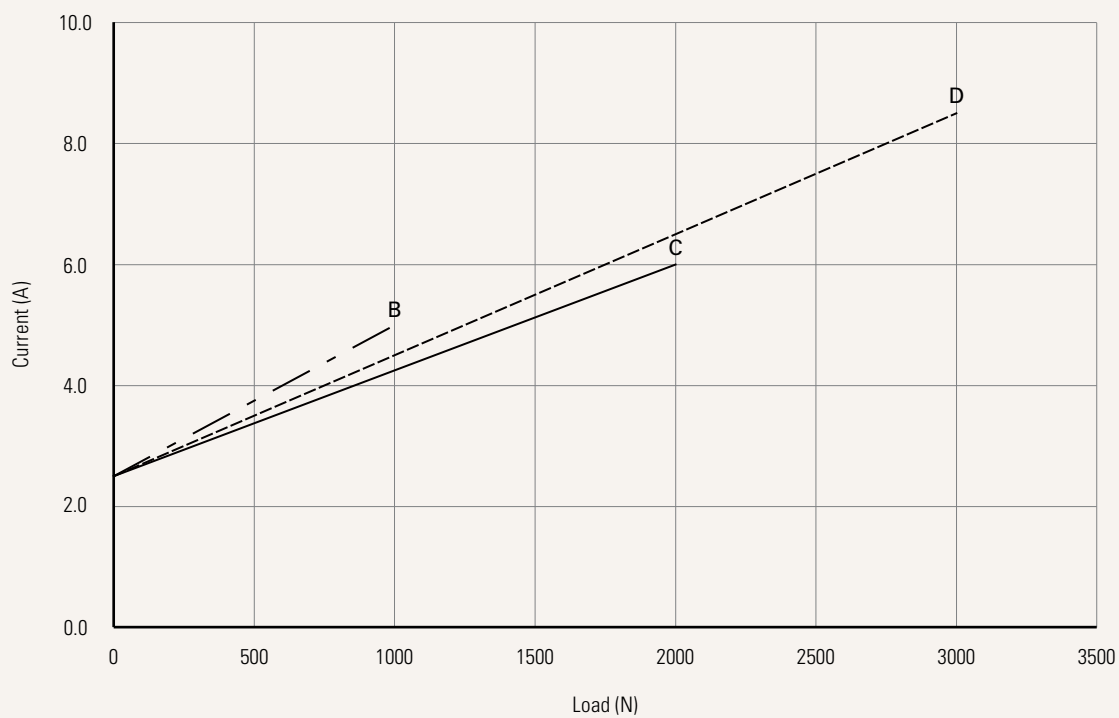
Performance Data (12V DC Motor)

Motor Speed (6300RPM, Duty Cycle 10%)

Speed vs. Load



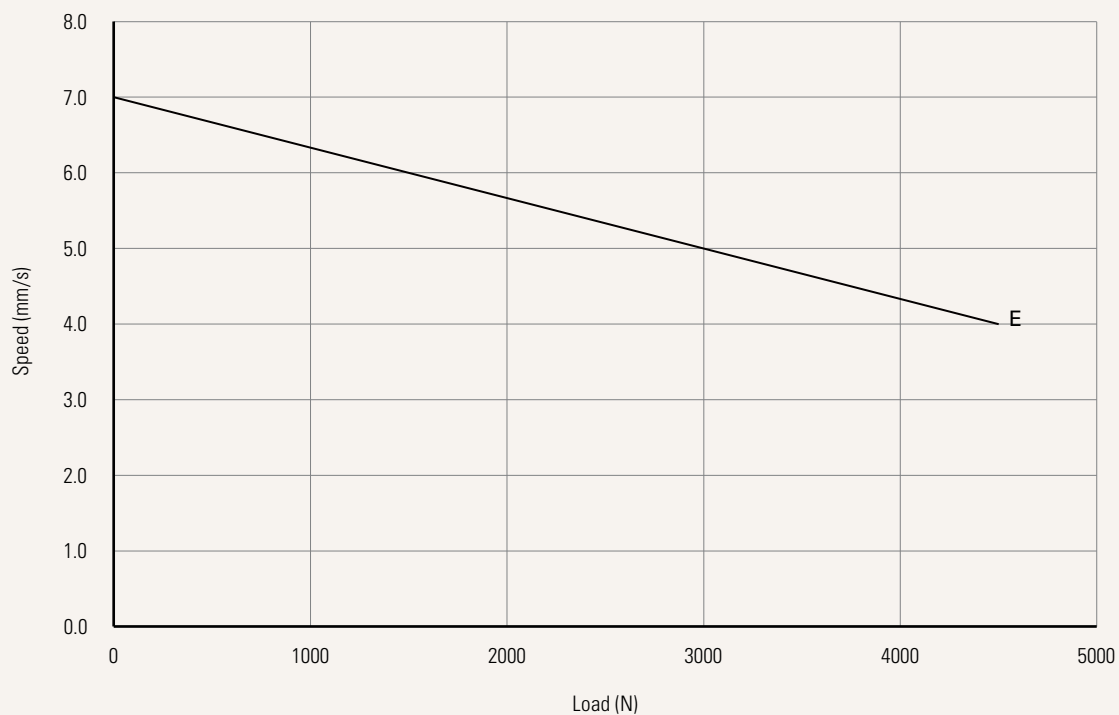
Current vs. Load



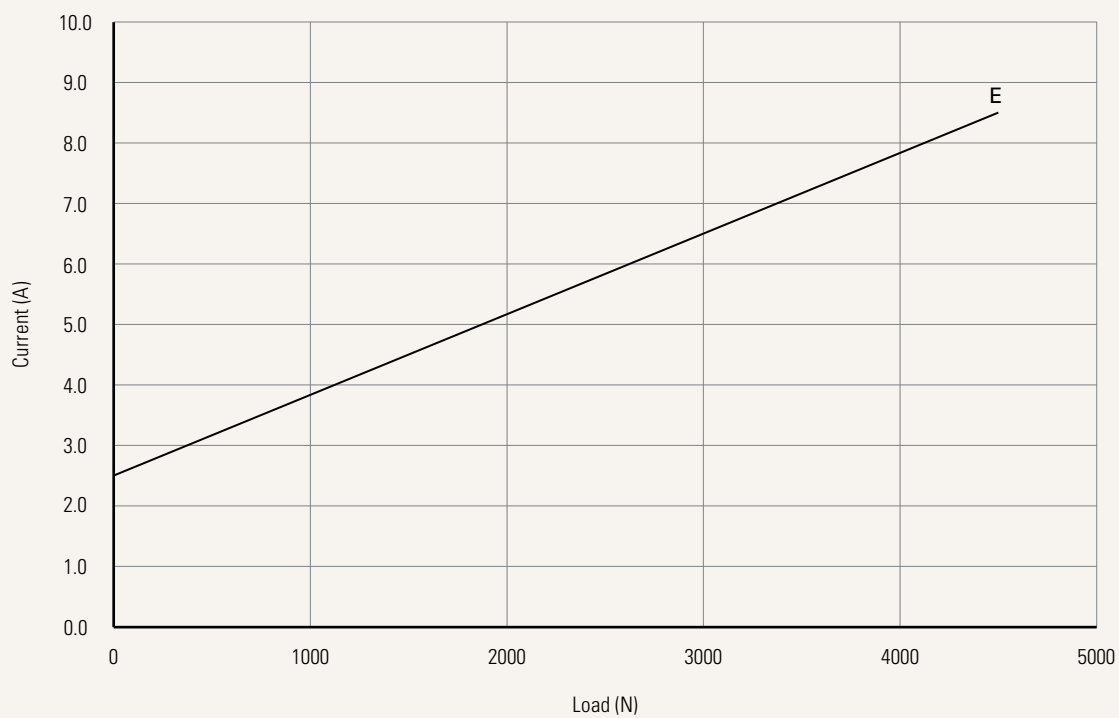
Performance Data (12V DC Motor)

Motor Speed (4200RPM, Duty Cycle 10%)

Speed vs. Load



Current vs. Load



Type	N = Normal			
Voltage	1 = 12V DC			
Load and Speed	See page 2			
Stroke (mm)	See page 2			
Retracted Length (mm)	See page 6			
Rear Attachment (mm)	1 = Aluminum, slotless, hole 10.2 2 = Aluminum, slotless, hole 16.2 See page 7		3 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 10.2 4 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 16.2	
Front Attachment (mm)	1 = Aluminum, slotless, hole 10.2 2 = Aluminum, slotless, hole 16.2 See page 7		3 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 10.2 4 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 16.2	
End of Stroke Overcurrent Protection PCBA	P = With PCBA			
Output Signal	0 = Without		2 = Hall sensors*2	
IP Rating	6 = IP66M		7 = IP68	8 = IP69K
Load Type	T = Push		P = Pull	
Connector	02 = Tinnded leads See page 7			
Cable Length (mm)	1000 = 1000	2000 = 2000	3000 = 3000	5000 = 5000
Alternative	N = Without			
Packaging (mm)	0 = Sample packaging C = Standard package, US fumigated pallet (1219*1016) 1 = Standard package, EU fumigated pallet (1200*800) 2 = Standard package, EU fumigated pallet (1500*800) E = Standard package, US plywood pallet (1219*1016) 5 = Standard package, EU plywood pallet (1200*800) 6 = Standard package, EU plywood pallet (1500*800)			

Retracted Length (mm)

1. Calculate $A+B = Y$
2. Retracted length needs to $\geq$ Stroke + Y

A.

Front Attach.	Load #	
	B, C	D, E
1, 2, 3, 4	+255	+261

B.

Stroke (mm)	Load & Speed Type (N)	
	B, C, D, E	
25~150	-	
151~200	-	
201~250	+10	
251~300	+20	
301~350	+30	
351~400	+40	
401~450	+50	
451~500	+60	
501~550	+70	
551~600	+80	
601~650	+90	
651~700	+100	
701~750	+110	
751~800	+120	
801~850	+130	
851~900	+140	
901~950	+150	
951~1000	+160	

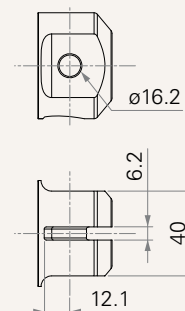
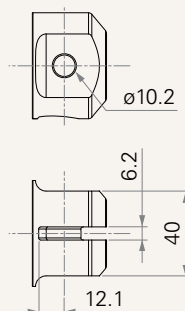
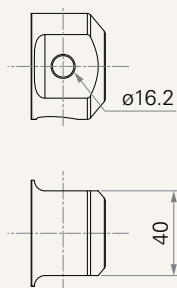
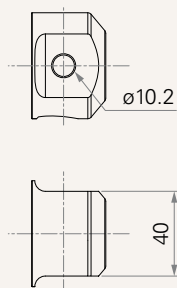
Rear Attachment (mm)

1 = Aluminum, slotless, hole 10.2

2 = Aluminum, slotless, hole 16.2

3 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 10.2

4 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 16.2



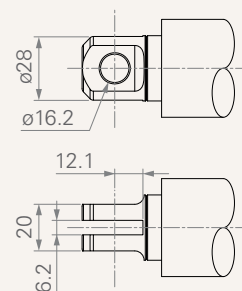
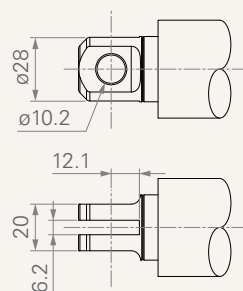
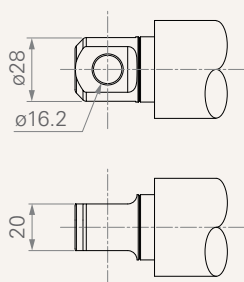
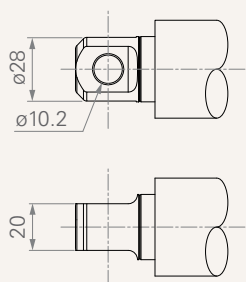
Front Attachment (mm)

1 = Aluminum, slotless, hole 10.2

2 = Aluminum, slotless, hole 16.2

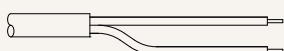
3 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 10.2

4 = Aluminum, U clevis, slot 6.2, depth 12.1, hole 16.2



Connector

02 = 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.