

JP6

series



Product Segments

- **Industrial Motion**

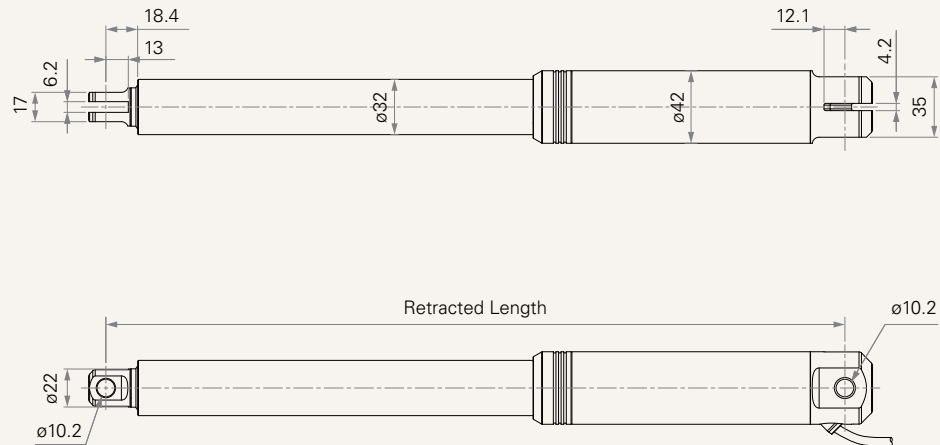
TiMOTION's JP6 series in-line linear actuator shares the same design concept as the JP5 and JP7. Specifically designed for use in industrial applications with moderate loads, it's capable of withstanding loads up to 3,000N. It is also suitable for product applications that require a compact installation space. Also, with an optional IP69K rating, it is designed to withstand high temperature, high pressure water jets, as well as the ingress of dust and other solid contaminants.

General Features

Max. load	3,000N (push/pull)
Max. speed at max. load	3.5mm/s
Max. speed at no load	8.5mm/s
Retracted length	≥ Stroke + 227mm
IP rating	IP69K
Stroke	25~1000mm
Output signals	NPN Hall sensors
Voltage	12/24V DC; 12/24V DC (PTC)
Operational temperature range	-10/-30°C~+70°C (with/without overcurrent protection PCBA)
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)	Duty Cycle	Typical Current (A)		Typical Speed (mm/s)		Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull			No Load	With Load	No Load	With Load	No Load	With Load	No Load	With Load
					24V DC	24V DC	24V DC	24V DC	12V DC	12V DC	12V DC	12V DC
Motor Speed (5600RPM)												
B	1000	1000	1000	10%	1.0	1.5	8.5	7.5	2.0	3.0	8.5	7.5
C	2000	2000	2000	10%	1.0	2.1	6.0	5.0	2.0	4.2	6.0	5.0
D	3000	3000	3000	10%	1.0	2.5	5.5	3.5	2.0	5.0	5.5	3.5

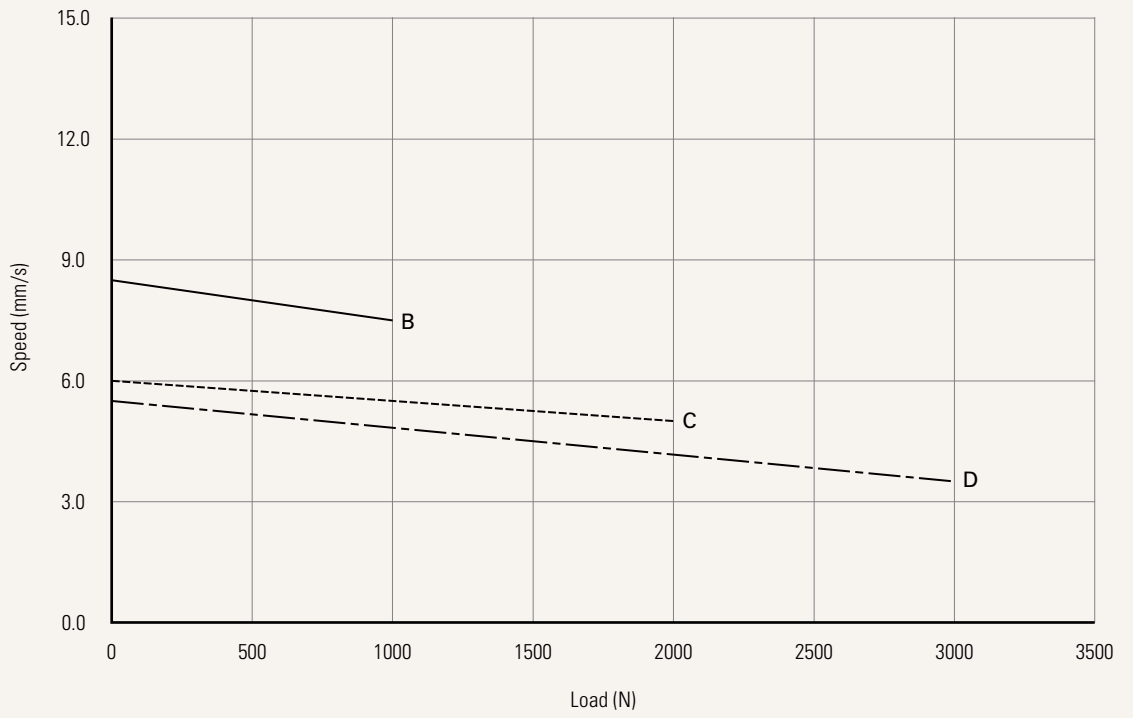
Note

- 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 dB(A) (by TIMOTION test standard, ambient noise level ≤ 36 dB(A)).
- 6 Standard stroke: 25~1000 mm.

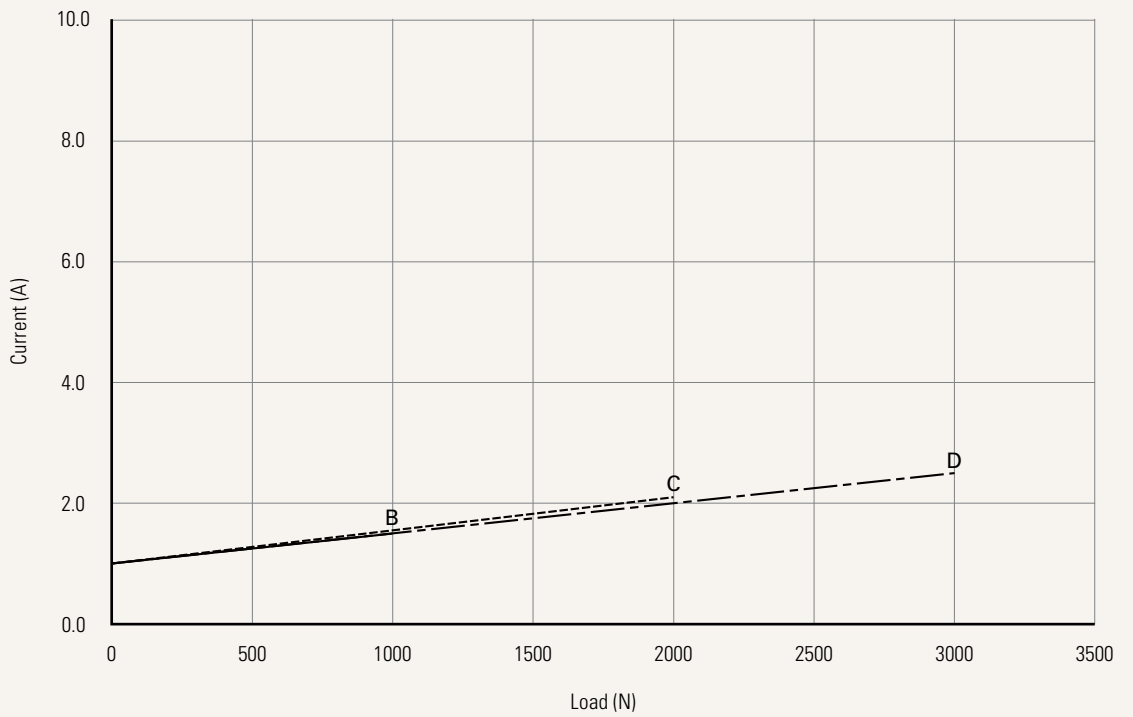
Performance Data (24V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



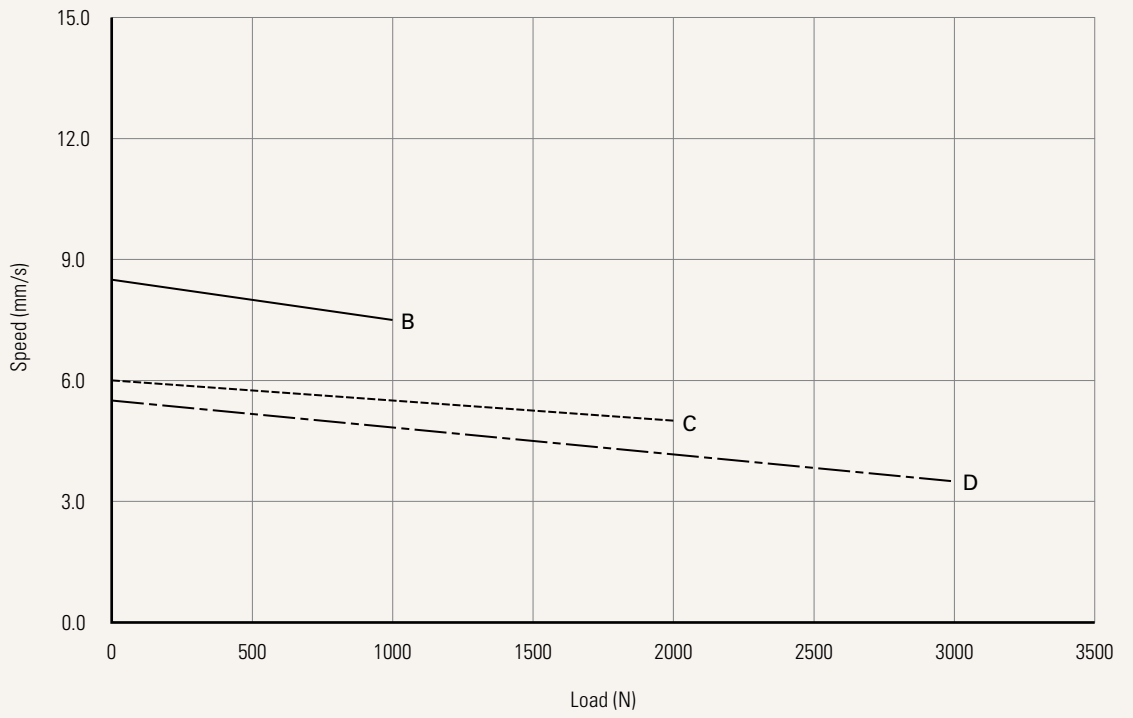
Current vs. Load



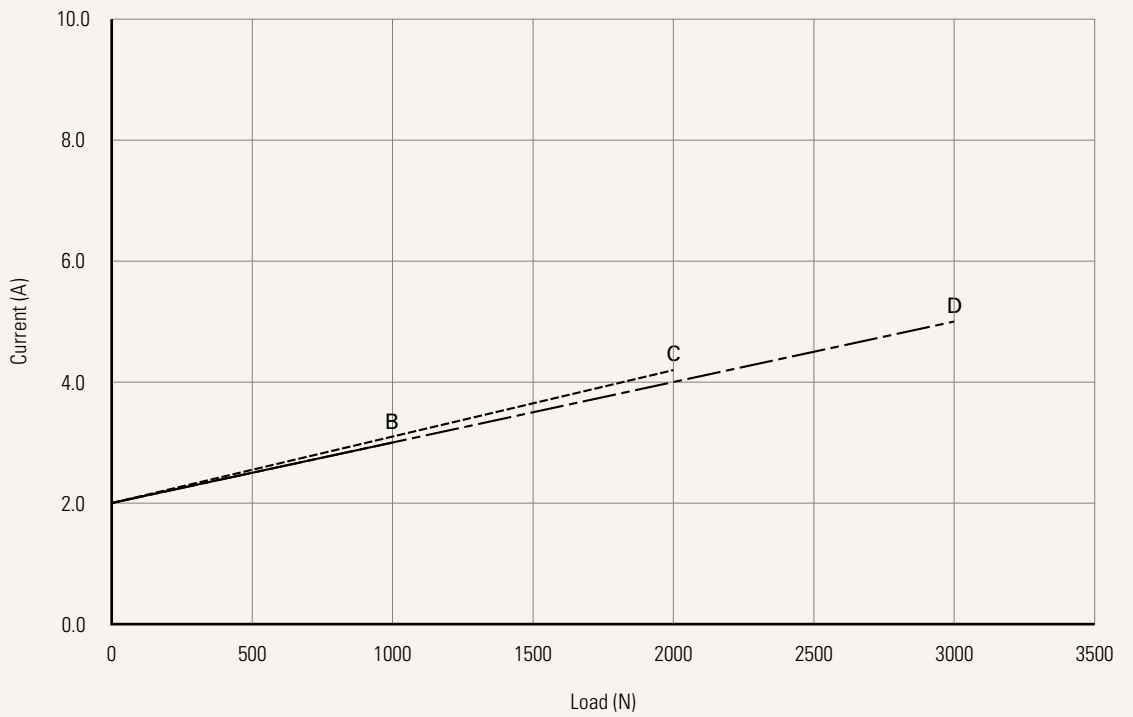
Performance Data (12V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



Current vs. Load



Type	N = Normal			
Voltage	1 = 12V DC	2 = 24V DC	5 = 24V DC, PTC	6 = 12V DC, PTC
Load and Speed	See page 2			
Stroke	See page 2			
Retracted Length (mm)	See page 6			
Rear Attachment (mm)	2 = Aluminum, slotless, hole 10.2		4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2	
	See page 7			
Front Attachment (mm)	2 = Aluminum, slotless, hole 10.2		4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2	
	See page 7			
Overcurrent Protection PCBA	0 = Without PCBA		P = With PCBA	
Output Signal	0 = Without		N = NPN Hall sensor*2	
IP Rating	6 = IP66M	7 = IP68	8 = IP69K	
Load Type	T = Push		P = Pull	
Connector	01 = Tinned leads			
	See page 7			
Cable Length (mm)	1000 = 1000	2000 = 2000	3000 = 3000	5000 = 5000
Alternative	N = Normal			
Packaging (mm²)	0 = Sample packaging C = Standard package, US fumigated pallet (1219*1016) 1 = Standard package, EU fumigated pallet (1200*800) E = Standard package, US plywood pallet (1219*1016) 5 = Standard package, EU plywood pallet (1200*800)			
Special Function of Spindle Subassembly	0 = Without (Standard)			

Retracted Length (mm)

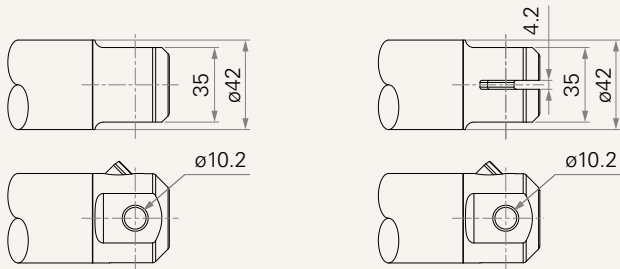
1. Calculate $A+B = Y$
2. Retracted length needs to $\geq \text{Stroke}+Y$

A.		B.	
Front Attach.	Load #	Stroke (mm)	Load & Speed Type (N)
	B, C, D		B, C, D
	Rear Attach.		
	2, 4		
2, 4	+227	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)

2 = Aluminum, slotless, hole 10.2

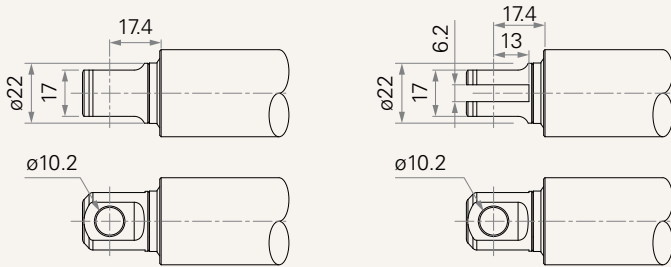
4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2



Front Attachment (mm)

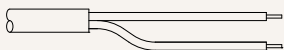
2 = Aluminum, slotless, hole 10.2

4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2



Connector

01 = Tinned leads



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