

JP6

series



Product Segments

- **Industrial Motion**

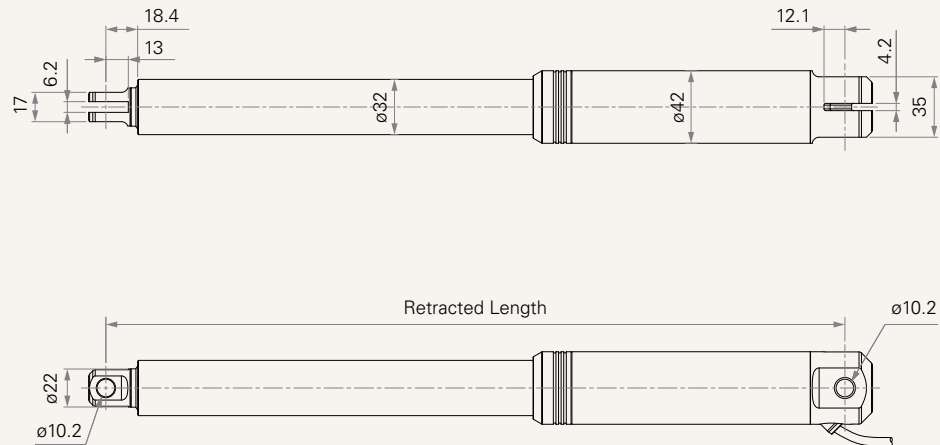
TiMOTION's JP6 series in-line linear actuator shares the same design concept as the JP5 and JP7. Specifically designed for use in industrial applications with moderate loads, it's capable of withstanding loads up to 3,000N. It is also suitable for product applications that require a compact installation space. Also, with an optional IP69K (static) 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); 1,000N (pull)
Max. speed at max. load	3.5mm/s
Max. speed at no load	8.5mm/s
Retracted length	≥ Stroke + 229mm
IP rating	IP69K (static)
Stroke	25~600mm
Output signals	Hall sensor * 2 (5V input) NPN Hall sensor (5~36V input) * 2
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	1000	2000	10%	1.0	2.1	6.0	5.0	2.0	4.2	6.0	5.0
D	3000	1000	3000	10%	1.0	2.5	5.5	3.5	2.0	5.0	5.5	3.5

Note

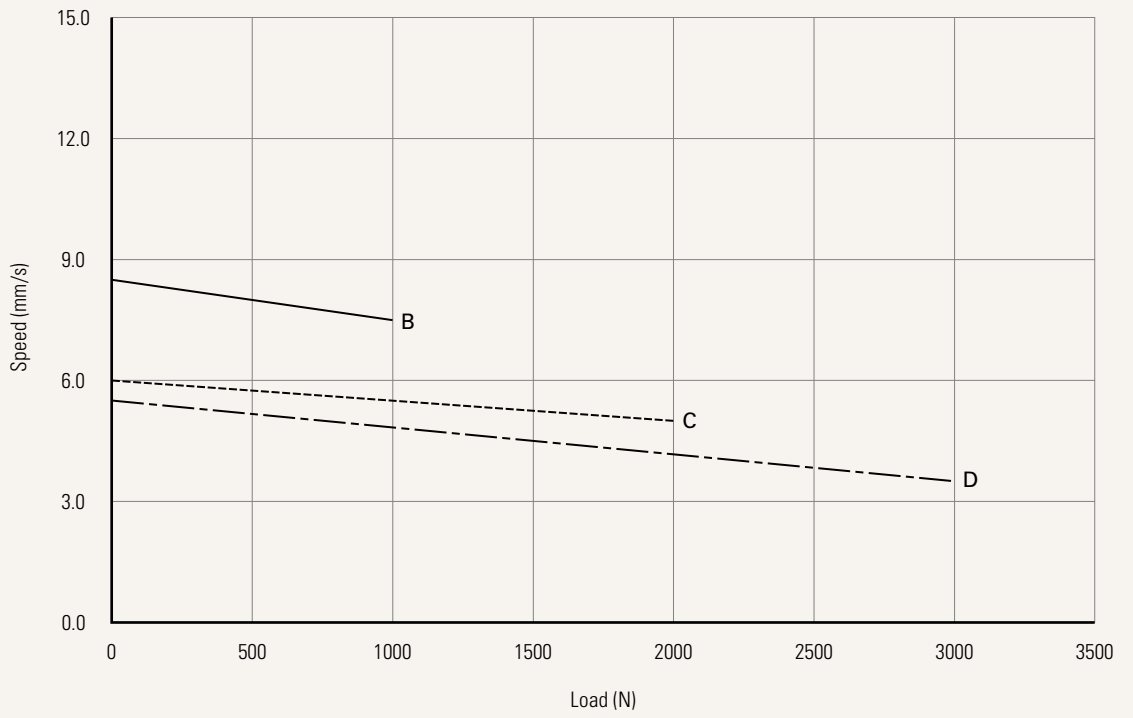
- 1 Please refer to the approved drawing for the final authentic value.
- 2 The current & speed in table are tested with 24V DC motor. With a 12V DC motor, the current is approximately twice the current measured in 24V DC; speed will be similar for both voltages.
- 3 The current & speed in table are 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: Min. 25 mm, Max. please refer to the table below.
- 7 Tolerance: fully extended length & retracted length ± 3 mm

CODE	Load (N)	Max. Stroke (mm)
B	≤ 1000	600
C	≤ 2000	450
D	≤ 3000	300

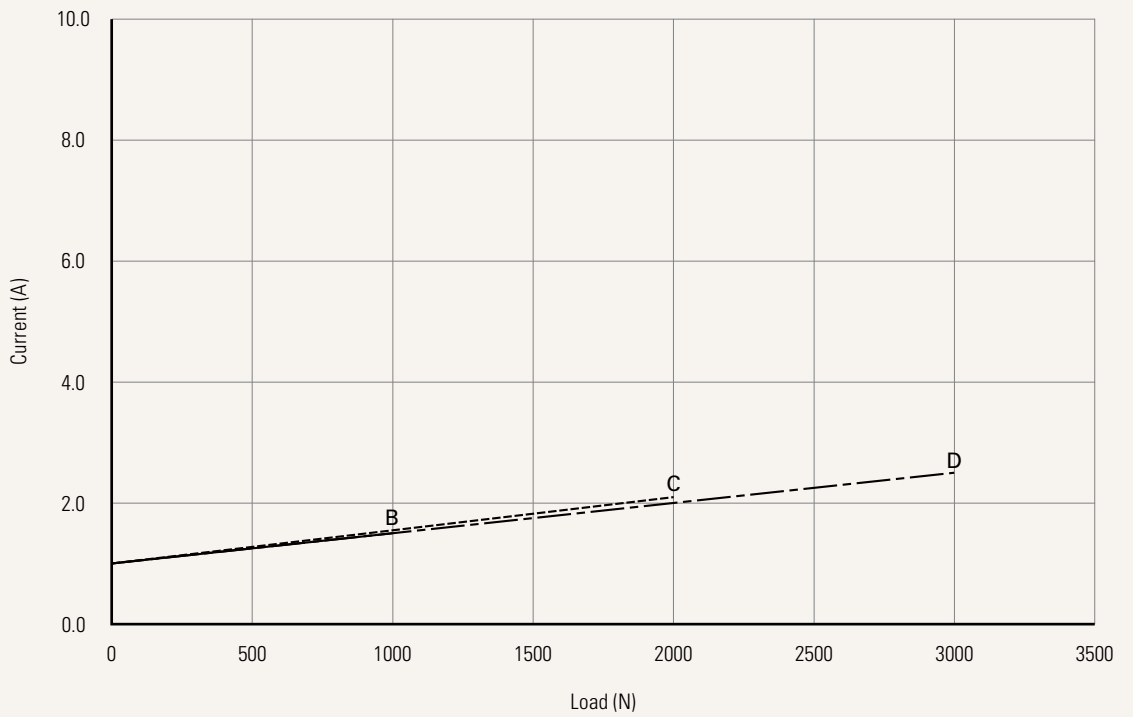
Performance Data (24V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



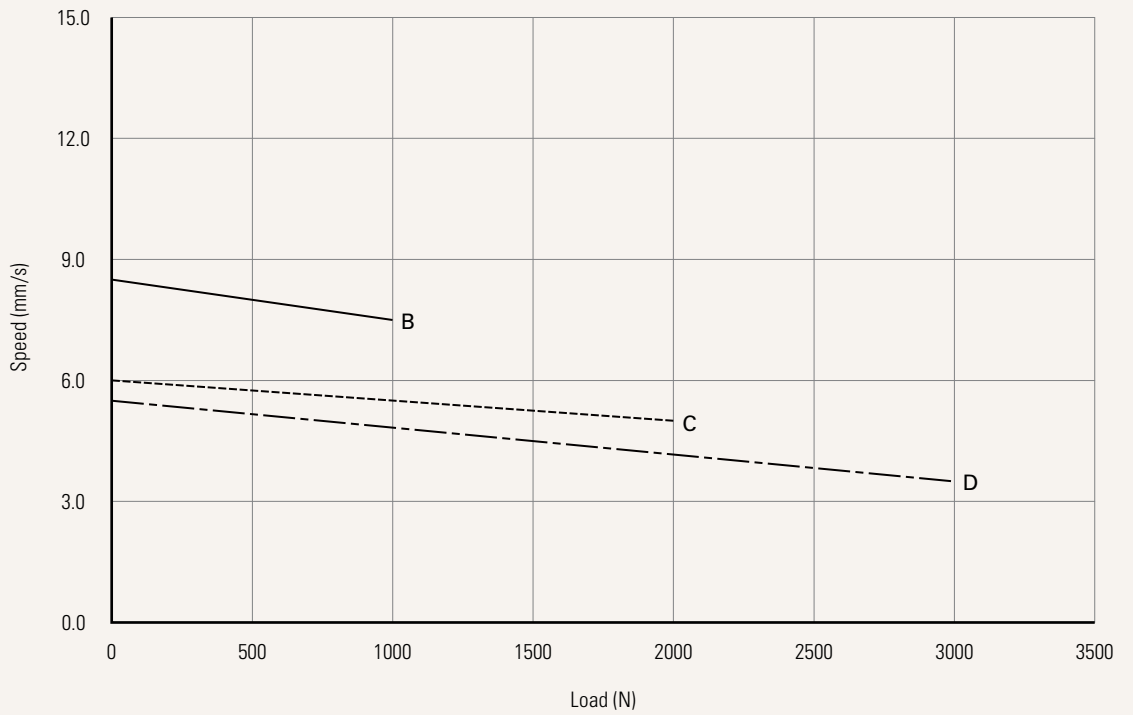
Current vs. Load



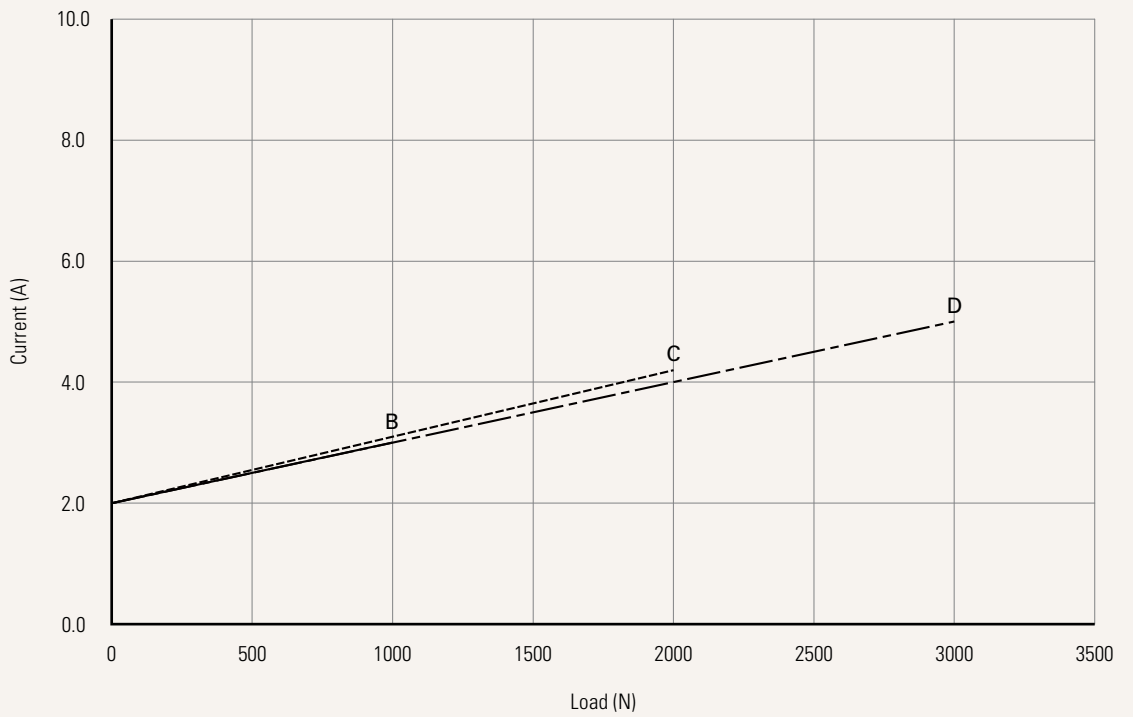
Performance Data (12V DC Motor)

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 = Hall sensor * 2 (5~36V input)	
	See page 8		5 = Hall sensor * 2 (5V input)	
IP Rating	6 = IP66M	7 = IP68	8 = IP69K	
Load Type	T = Push		P = Pull	
Connector (mm)	01 = Tinned leads			
	See page 7			
	0S = AMP Superseal 1.5 (Female Connector with Male Terminal Pins)			
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)			

Retracted Length (mm)

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

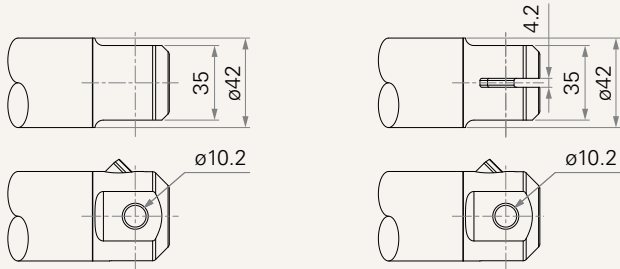
A.	
Front Attach.	Rear Attach.
	2, 4
2, 4	+229

B.	
Stroke (mm)	Load & Speed Type (N)
	B, C, D
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

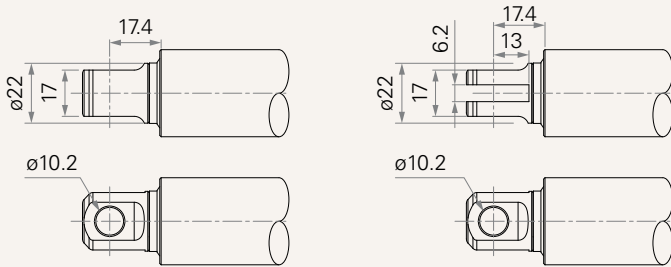
4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2



Front Attachment (mm)

2 = Aluminum, slotless, hole 10.2

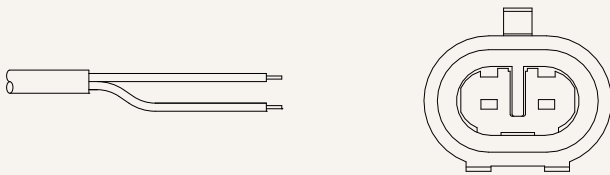
4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2



Connector (mm)

01 = Tinned leads

0S = AMP superseal 1.5, 2 pins



Wiring Definition

Normal

Port Number	Wire Color	Wire Color (AWG)	Output Signal	
			0. Without	5, N. Hall*2
A1	● RD	18	EXT+	EXT+
	● BK	18	RET+	RET+
	● RD	26	X	Vcc+
	○ WH	26	X	S1
	● BU	26	X	S2
	● BK	26	X	Hall-GND

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.