JP6
series

Product Segments

- **Industrial Motion**

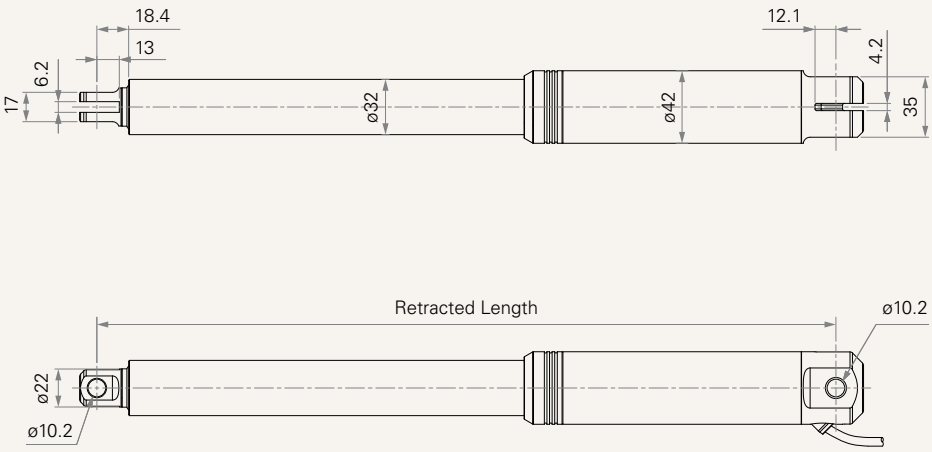
TiMOTION's JP6 series in-line linear actuator shares the same design concept as the JP5 and JP7. Specifically designed for use in industrial applications with moderate loads, it's capable of withstanding loads up to 3,000N. It is also suitable for product applications that require a compact installation 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	Hall sensors (5V input)
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 24V DC	With Load 24V DC	No Load 24V DC	With Load 24V DC	No Load 12V DC	With Load 12V DC	No Load 12V DC	With Load 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; 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 ≤ 70dBA (by TiMOTION test standard, ambient noise level ≤ 36dBA).

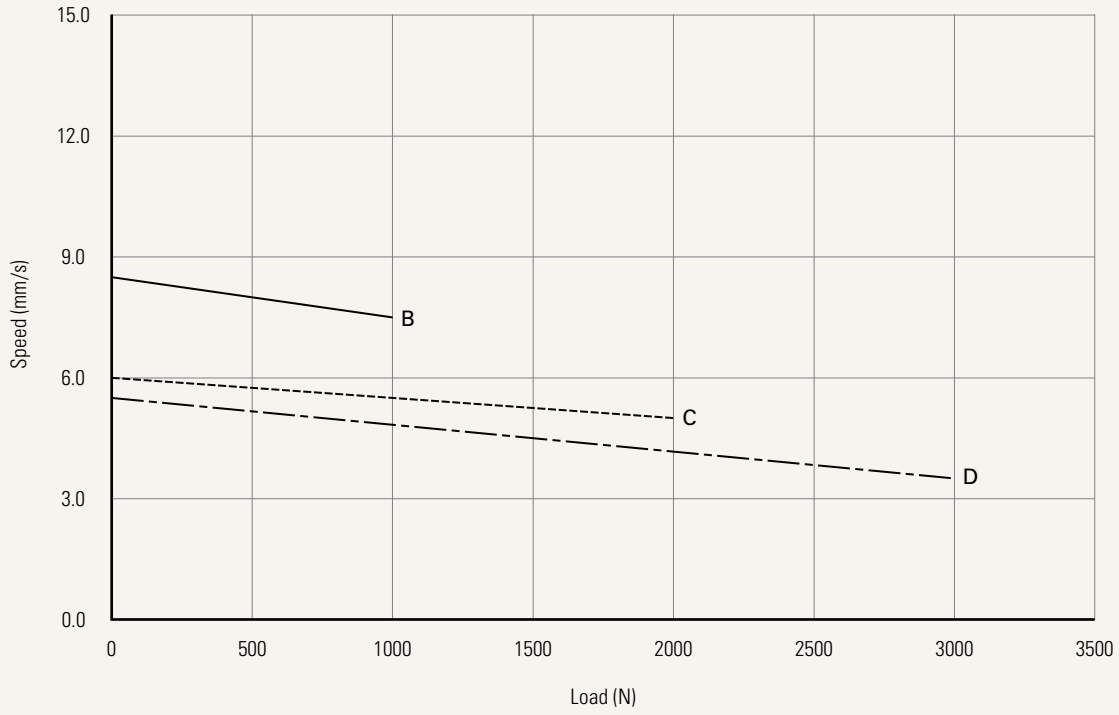
6 Standard stroke: Min. 25 mm, Max. please refer to the table below.

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

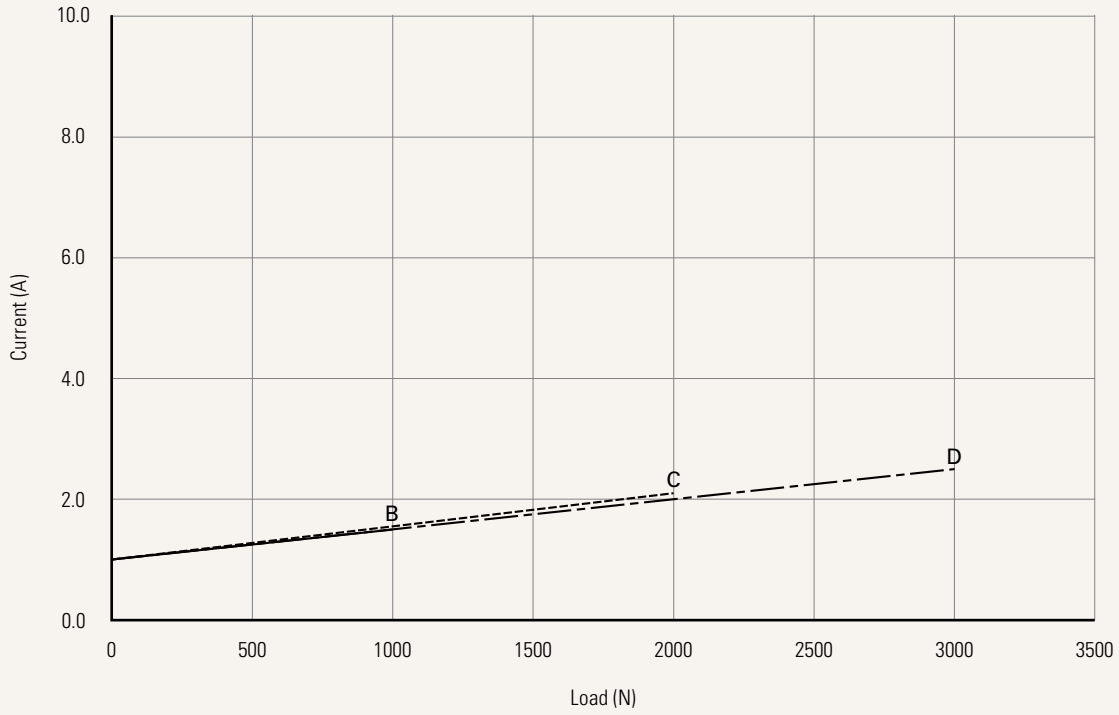
Performance Data (24V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



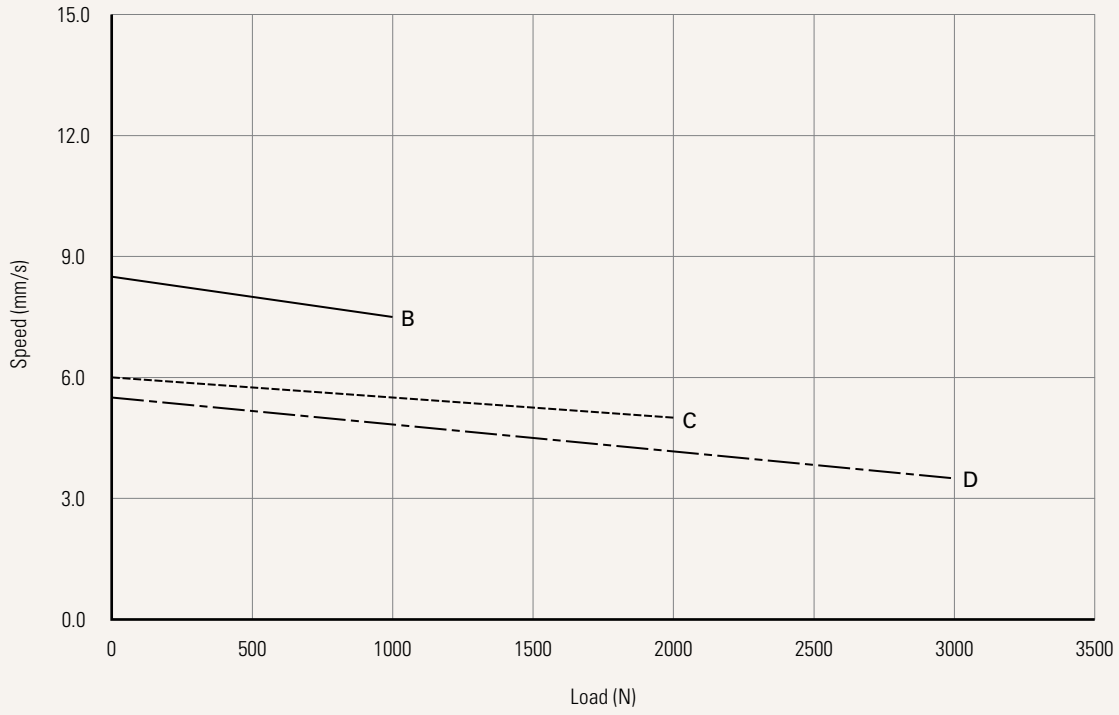
Current vs. Load



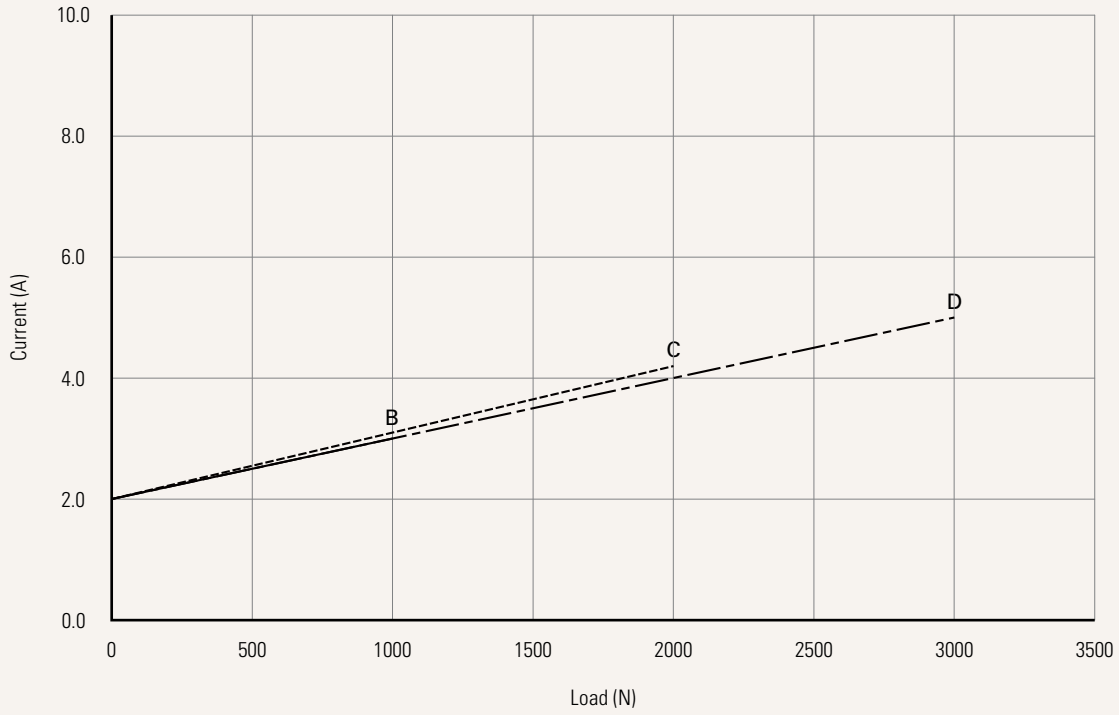
Performance Data (12V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



Current vs. Load



JP6 Ordering Key

JP6

Version: 20241115-E

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) See page 7	2 = Aluminum, slotless, hole 10.2		4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2	
Front Attachment (mm) See page 7	2 = Aluminum, slotless, hole 10.2		4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2	
Overcurrent Protection PCBA	0 = Without PCBA	P = With PCBA		
Output Signal See page 8	0 = Without		5 = Hall sensor*2 (5V input)	
IP Rating	6 = IP66M	7 = IP68	8 = IP69K	
Load Type	T = Push	P = Pull		
Connector See page 7	01 = Tinnded leads			
Cable Length (mm)	1000 = 1000	2000 = 2000	3000 = 3000	5000 = 5000
Alternative	N = Normal			
Packaging (mm^2)	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)			

JP6 Ordering Key Appendix

Retracted Length (mm)

1. Calculate A+B = Y
2. Retracted length needs to ≥ Stroke+Y

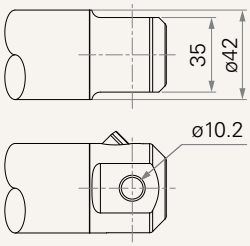
A.	
Front Attach.	Rear Attach.
	2, 4
2, 4	+227

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

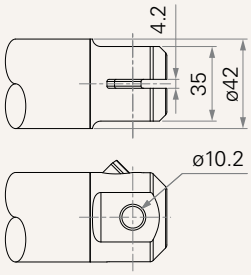
JP6 Ordering Key Appendix

Rear Attachment (mm)

2 = Aluminum, slotless, hole 10.2

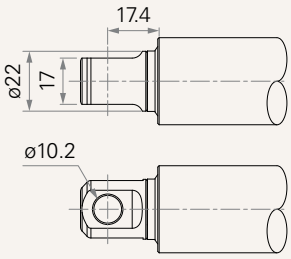


4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2

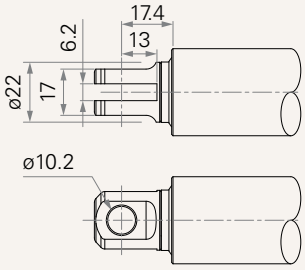


Front Attachment (mm)

2 = Aluminum, slotless, hole 10.2

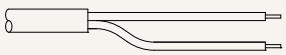


4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2



Connector

01 = Tinnded leads



JP6 Ordering Key Appendix

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.