JP6
series



Product Segments

- **Industrial Motion**

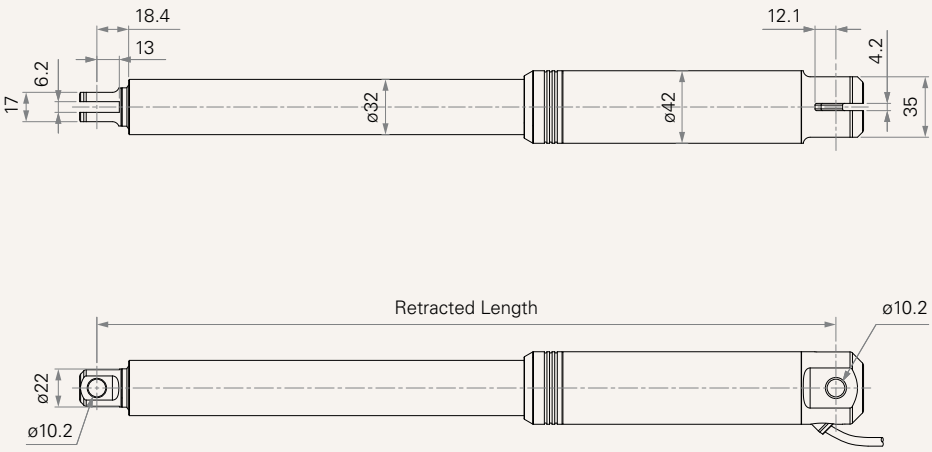
TiMOTION's JP6 series in-line linear actuator shares the same design concept as the JP5 and JP7. Specifically designed for use in industrial applications with moderate loads, it's capable of withstanding loads up to 3,000N. It is also suitable for product applications that require a compact installation 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. Furthermore, The JP6 is a marine actuator built with premium corrosion-resistant materials. Its extension tube is manufactured from marine-grade 316L stainless steel, providing exceptional resistance to corrosion, staining, and surface degradation.

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 (12V DC)

CODE	Load (N)		Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull		No Load	With Load	No Load	With Load
Motor Speed (5600RPM, Duty Cycle 10%)							
B	1000	1000	1000	2.0	3.0	8.5	7.5
C	2000	1000	2000	2.0	4.2	6.0	5.0
D	3000	1000	3000	2.0	5.0	5.5	3.5

Load and Speed (24V DC)

CODE	Load (N)		Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull		No Load	With Load	No Load	With Load
Motor Speed (5600RPM, Duty Cycle 10%)							
B	1000	1000	1000	1.0	1.5	8.5	7.5
C	2000	1000	2000	1.0	2.1	6.0	5.0
D	3000	1000	3000	1.0	2.5	5.5	3.5

Note

1 Please refer to the approved drawing for the final authentic value.

2 Voltage range: 24V±10%, 12V±20%.

3 The current & speed in table are tested when the actuator is extending under push load.

4 The current and speed values shown in the table and curves are average test values measured using a DC regulated power supply at an ambient temperature of 25°C.

5 Without load, noise level ≤ 70dBA (by TiMOTION test standard, ambient noise level ≤ 36dBA).

6 Safety factor 3. (The static ultimate strength of the actuator is designed to be 3 times the rated load.)

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

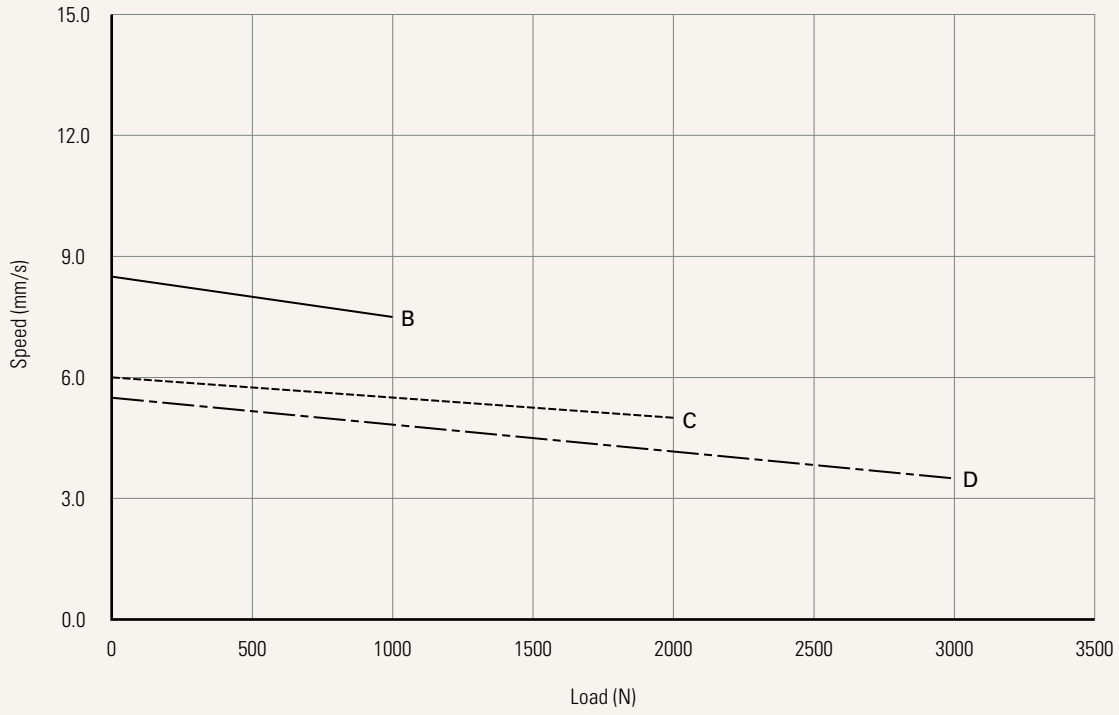
8 Tolerance: fully extended length & retracted length ±3mm

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

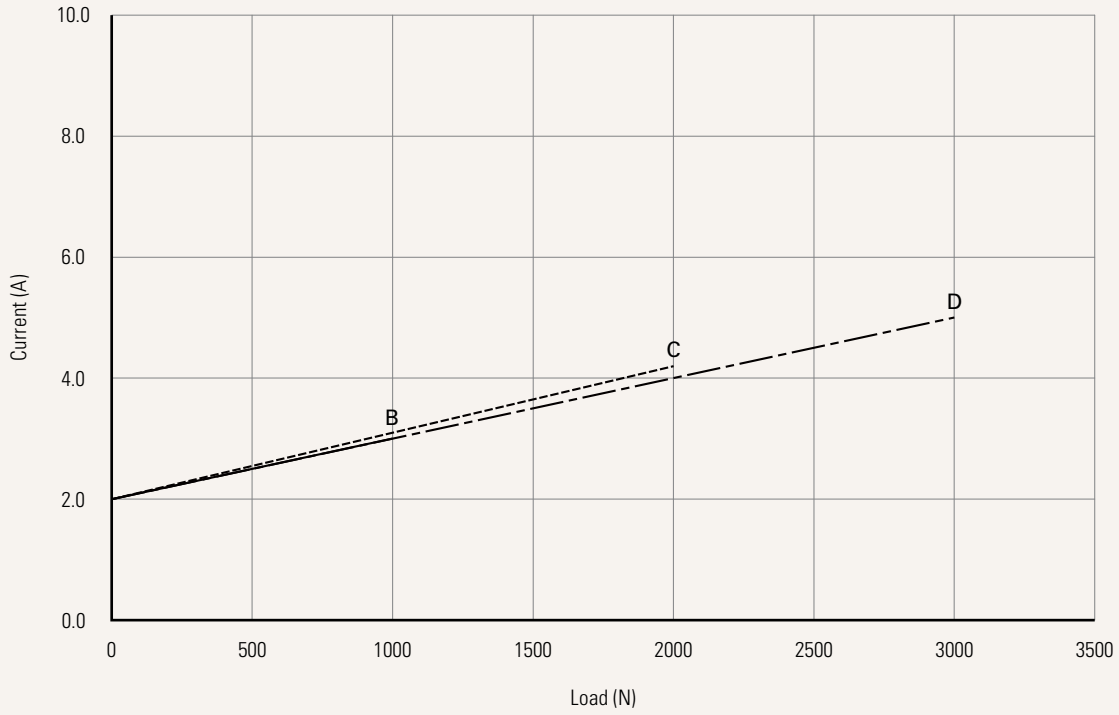
Performance Data (12V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



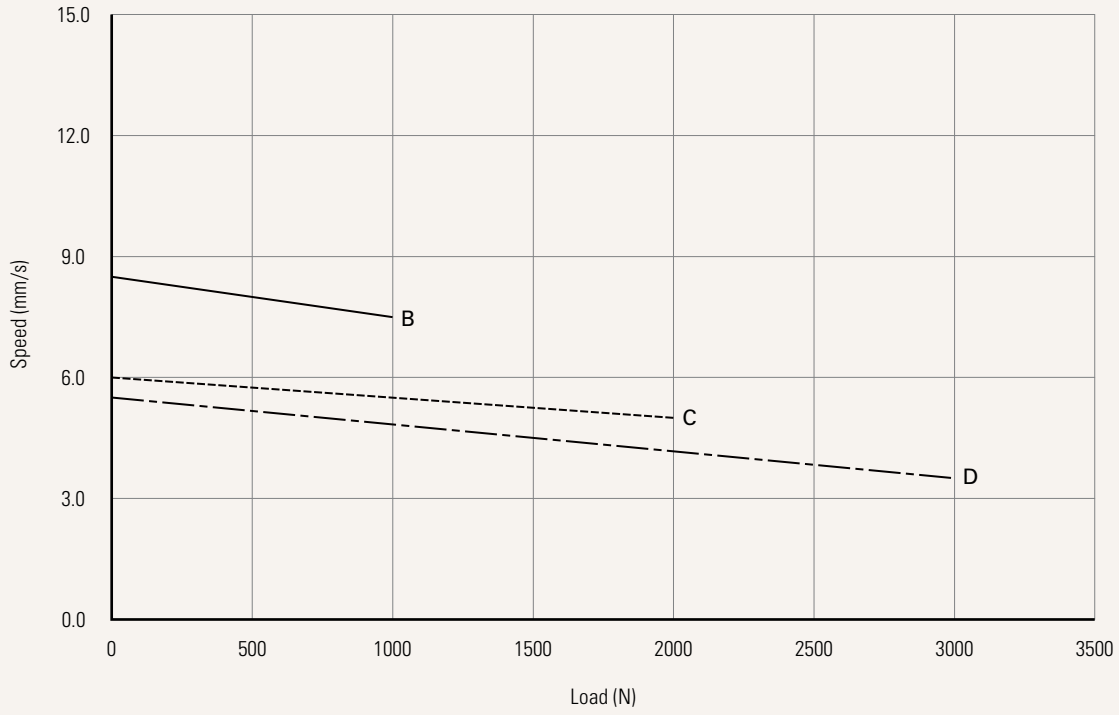
Current vs. Load



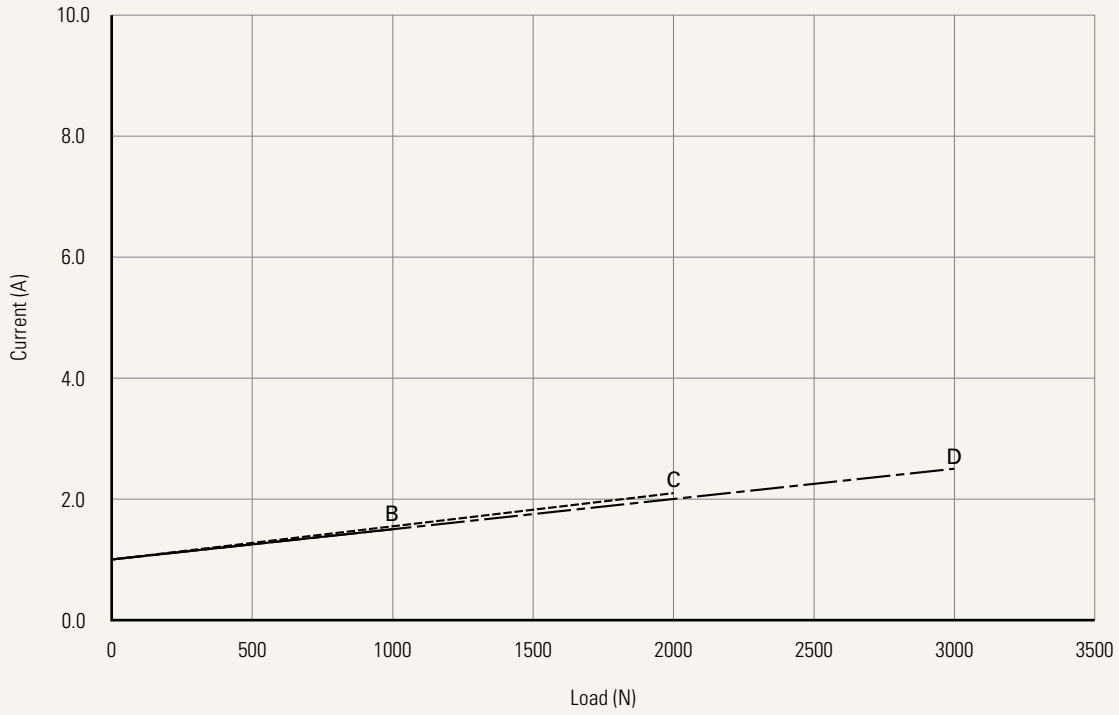
Performance Data (24V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



Current vs. Load



JP6 Ordering Key

JP6

Version: 20260813-H

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		C = 316L, slotless, hole 10.2 E = 316L, 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		C = 316L, slotless, hole 10.2 E = 316L, 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)		N = Hall sensor * 2 (5~36V input)	
IP rating / Application Environments	6 = IP66M 7 = IP68		8 = IP69K M = IP66M & IP68 & IP69K / Marine Application	
Load Type	T = Push	P = Pull		
Connector (mm) See page 7	01 = Tinned leads 0S = AMP SUPERSEAL 1.5, (Female Connector with Male Terminal Pins, refer to [PF25152]) 0D = Deutsch DT connector (Female Connector with Male Terminal Pins, refer to: [PF25152])			
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

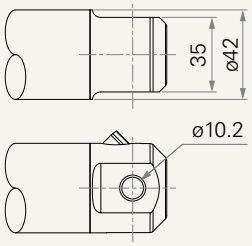
A.	
Front Attach.	Rear Attach.
	2, 4, C, E
2, 4, C, E	+229

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

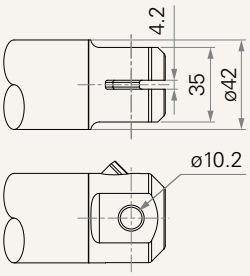
JP6 Ordering Key Appendix

Rear Attachment (mm)

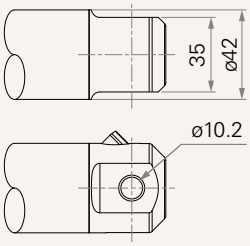
2 = Aluminum, slotless, hole 10.2



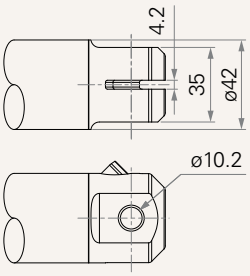
4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2



C = 316L, slotless, hole 10.2

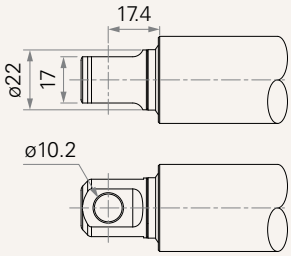


E = 316L, U clevis, slot 4.2, depth 12.1, hole 10.2

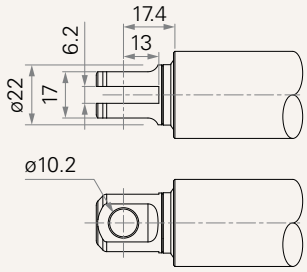


Front Attachment (mm)

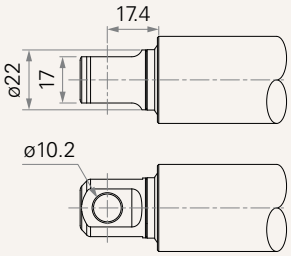
2 = Aluminum, slotless, hole 10.2



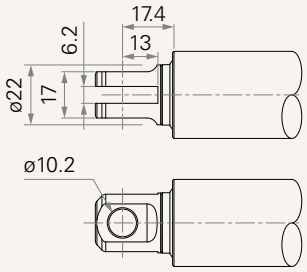
4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2



C = 316L, slotless, hole 10.2

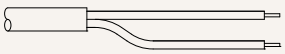


E = 316L, U clevis, slot 6.2, depth 13.0, hole 10.2



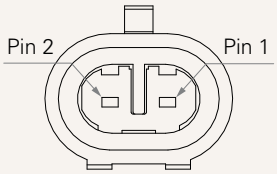
Connector (mm)

01 = Tinned leads



0S = AMP superseal 1.5

2 pins plug

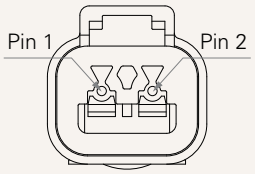


Wiring definition:
Pin1: Red (Extend+)
Pin2: Black (Retract+)
Output signal must be selected #0

Connector IP = IP67, IP69K

0D = Deutsch DT connector

2 pins plug



Wiring definition:
Pin1: Red (Extend+)
Pin2: Black (Retract+)
Output signal must be selected #0

Connector IP = IP68, IP69K

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.