JP3
series

Product Segments

- **Industrial Motion**

TiMOTION's JP3 series inline linear actuator was designed for low load industrial applications where up to IP69K dust and liquid ingress protection is necessary. It is best suited for applications with visual or compact installation dimension requirements. Hall sensors are optional for the JP3 which allow for synchronization and position feedback.

General Features

Voltage of motor	12V DC or 24V DC
Maximum load	2,000N in push/pull
Maximum speed at full load	20.0mm/s (with 500N in a push or pull condition)
Standard stroke	20~500mm
Minimum installation dimension	Stroke+217mm
IP rating	Up to IP69K
Color	Black or grey
Certificate	EN60601-1 compliant
Operational temperature range	-5°C~+45°C

An inline actuator designed for small spaces

Load and Speed

CODE	Load (N)		Self Locking Force (N)	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
Motor Speed (5600RPM, Duty Cycle 10%)							
B	2000	2000	2000	1.0	3.0	7.5	4.2
C	1500	1500	1500	1.0	3.0	10.5	6.5
D	1000	1000	1000	1.0	3.0	15.5	9.5
E	500	500	500	1.0	3.0	26.5	20.0

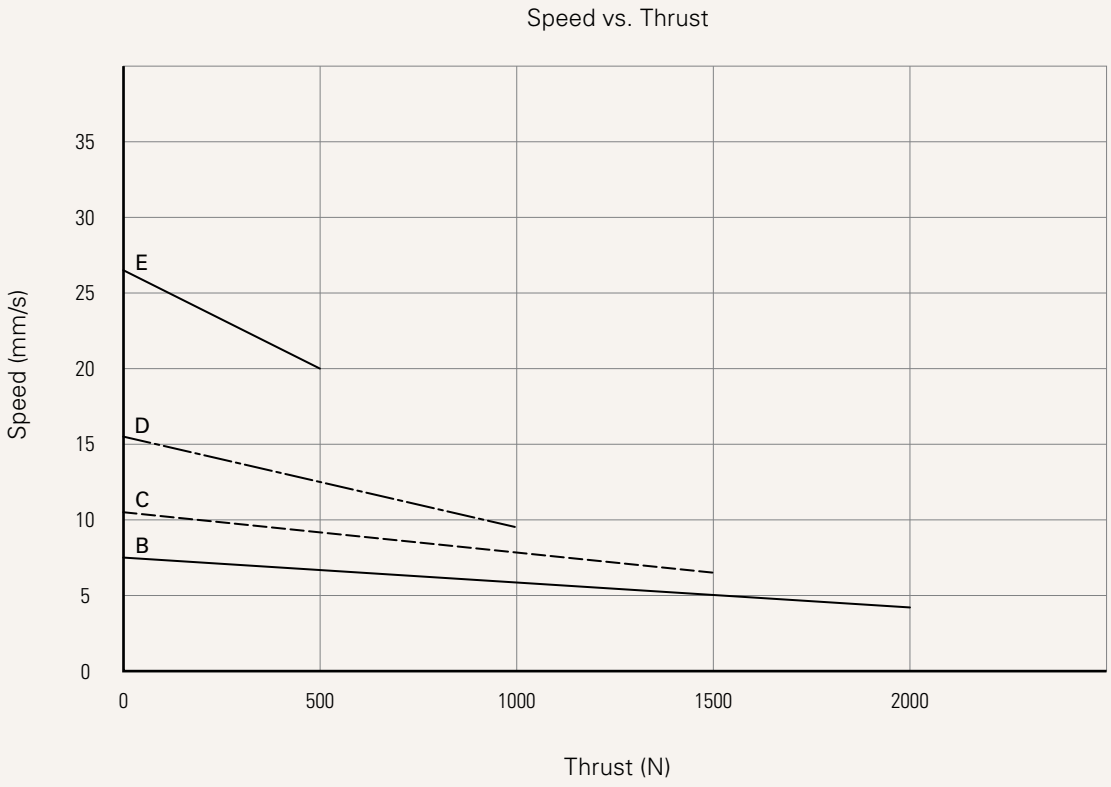
Note

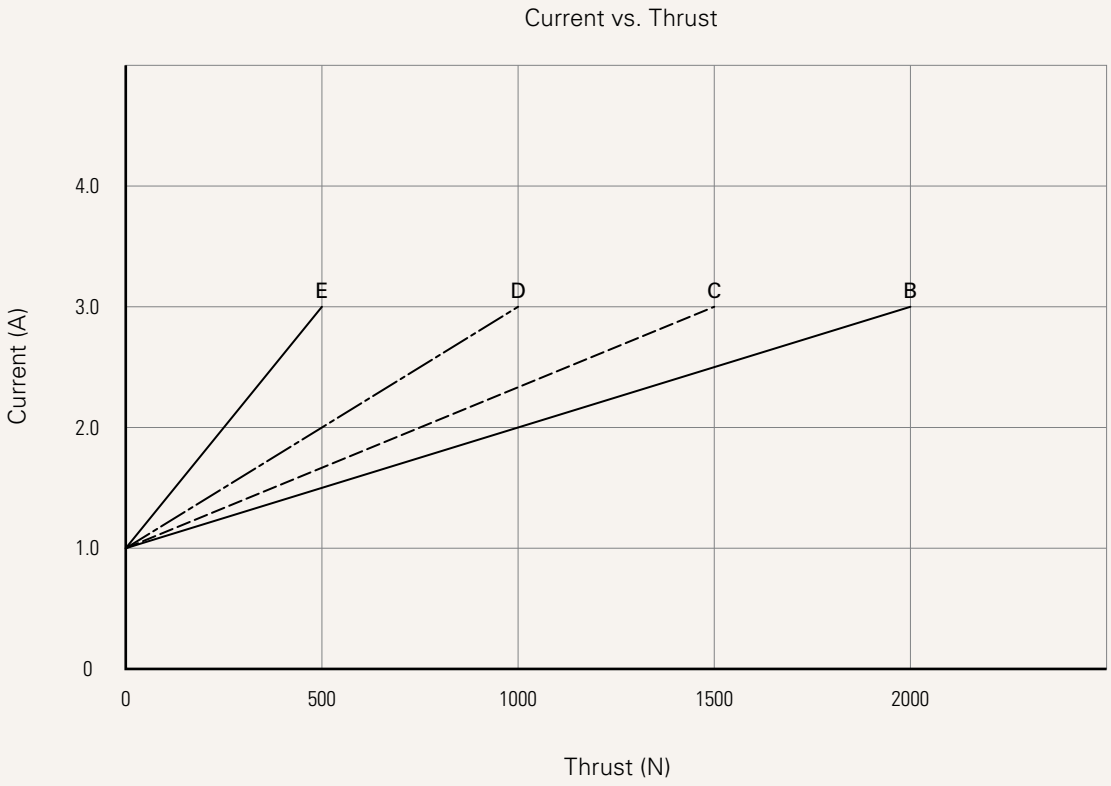
1 With a 12V motor, the current is approximately twice the current measured in 24V; speed will be similar for both voltages.

2 This self-locking force level is reached only when a short circuit is applied on the terminals of the motor.
All the TiMOTION control boxes have this feature built-in.

Performance Data (24V DC Motor)

Motor Speed (5600RPM, Duty Cycle 10%)



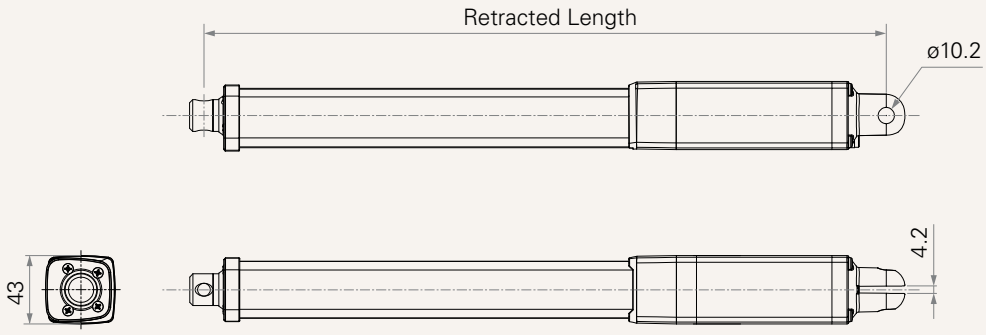


Note

1 The performance data in the curve charts shows theoretical value.

Drawing

Standard Dimensions
(mm)



Wire Definitions

CODE*	Pin					
	1	2	3	4	5	6
	(green)	(red)	(white)	(black)	(yellow)	(blue)
1	extend (VDC+)	N/A	N/A	N/A	retract (VDC+)	N/A
2	extend (VDC+)	N/A	middle switch pin B	middle switch pin A	retract (VDC+)	N/A
3	extend (VDC+)	common	upper limit switch	N/A	retract (VDC+)	lower limit switch
4	extend (VDC+)	common	upper limit switch	medium limit switch	retract (VDC+)	lower limit switch

Note

* See ordering key - functions for limit switches

Retracted length (mm)

1. Calculate A+B+C = Y

2. Retracted length needs to ≥ Stroke+Y

A. Attachment	Rear Attachment Code
Front Attachment Code	1
1	+217
2	+217
3	+230
4	+230
5	+230

B. Stroke (mm)	
20~150	-
151~200	-
201~250	+5
251~300	+10
301~350	+15
351~400	+20

For stroke over 400mm, +5mm for each incremental 50mm stroke.

C. Output Signals	
Code	
0	-
1	+13
2	+13

JP3 Ordering Key

JP3

Version: 20161101-B

	Voltage	1 = 12V	2 = 24V	5 = 24V, PTC	
	Load and Speed	See page 2.			
	Stroke (mm)				
	Retracted Length (mm)	See page 5.			
	Rear Attachment	1 = Aluminum casting, U clevis, slot 4.2mm, depth 18.0mm, hole 10.2mm			
	Front Attachment	1 = Aluminum casting, no slot, hole 6.4mm 2 = Aluminum casting, no slot, hole 8.0mm 3 = Aluminum casting, U clevis, slot 6.0mm, depth 13.0mm, hole 10.0mm 4 = Aluminum casting, U clevis, slot 6.0mm, depth 13.0mm, hole 6.4mm 5 = Aluminum casting, U clevis, slot 6.0mm, depth 13.0mm, hole 8.0mm			
	Direction of Rear Attachment (Counterclockwise)	1 = 0°			
	Color	1 = Black		2 = Grey (Pantone 428C)	
	IP Rating	1 = Without 2 = IP54	3 = IP66 5 = IP66W	6 = IP66D 7 = IP68	8 = IP69K
	Special Functions for Spindle Sub-Assembly	0 = Without (standard)			
	Functions for Limit Switches	1 = Two switches at full retracted/extended positions to cut current 2 = Two switches at full retracted/extended positions to cut current + 3rd LS to send signal 3 = Two switches at full retracted/extended positions to send signal 4 = Two switches at full retracted/extended positions to send signal + 3rd LS to send signal			
	Output Signals	0 = Without	1 = One Hall sensor	2 = Two Hall sensors	
	Connector	1 = DIN 6pin, 90° plug		2 = Tinned leads	
	Cable Length	0 = Straight, 100mm 1 = Straight, 500mm		3 = Straight, 1000mm B~H = For direct cut system, please contact TiMOTION	