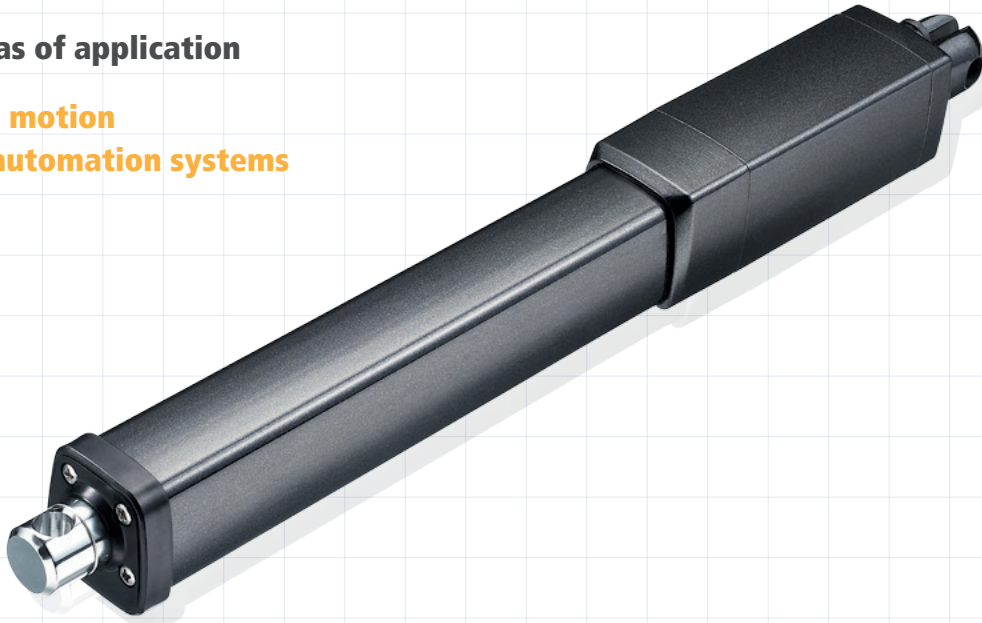# Electric actuator
JP4

Typical areas of application

- **Industrial motion**
- **Building automation systems**

The JP4 series inline linear actuator is most similar to the JP3, but was designed for industrial applications that require higher load and speed. Its IP69K protection ensures it will withstand high temperature, high pressure water jets, and the ingress of dust and other solid contaminants. For synchronization and position feedback, the JP4 can be equipped with Hall sensors.

Key figures

- Voltage of motor   12 V DC or 24 V DC
- Max. load   4500 N in push / 3000 N in pull
- Max. speed at full load   24.0 mm/s (with 500 N in a push or pull condition)
- Standard stroke   20 ~ 500 mm
- Min. installation dimension   stroke+289 mm
- IP rating   up to IP69K
- Color   black or grey
- Operational temperature range   -5 °C ~ +65 °C
- Operational temperature range
  at full performance   +5 °C ~ +45 °C
- Storage temperature range   -40 °C ~ +70 °C

An inline actuator specially designed for small spaces.

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Load and speed

CODE	Load		Self locking force 1)	Typical current 2)		Typical speed	
	push	pull		no load 24 VDC	with load 24 VDC	no load 24 VDC	full load 24 VDC
	[N]	(N)	[N]	[A]	[A]	[mm/s]	[mm/s]
Motor speed 3800 min⁻¹, duty cycle 10%							
B	4500	3000	4500	0.75	3.5	5.1	3.2
C	3500	3000	3000	0.75	3.2	7.3	4.8
D	2500	2500	2000	0.8	3.2	10.0	6.2
E	1500	1500	1000	0.8	2.2	13.0	10.3
F	1000	1000	700	0.8	2.2	19.0	15.5
G	500	500	500	0.8	2.0	29.0	24.0

Note

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

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

Wire definitions

| CODE*	Pin 1 (green)	Pin 2 (red)	Pin 3 (white)	Pin 4 (black)	Pin 5 (yellow)	Pin 6 (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.
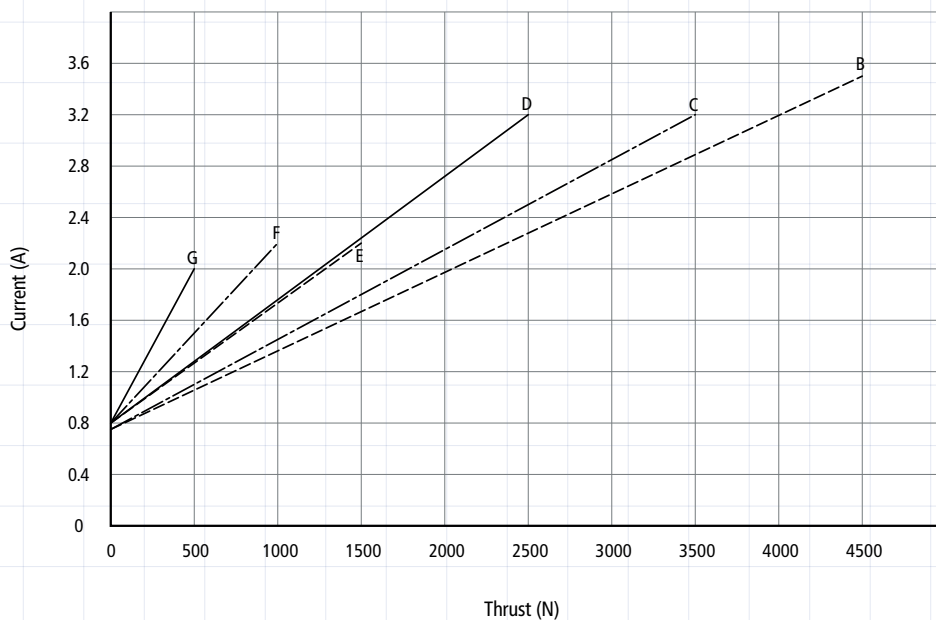
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Performance data (24 VDC motor)

Motor speed 3800 min^{-1}, duty cycle 10%

Speed vs. Thrust
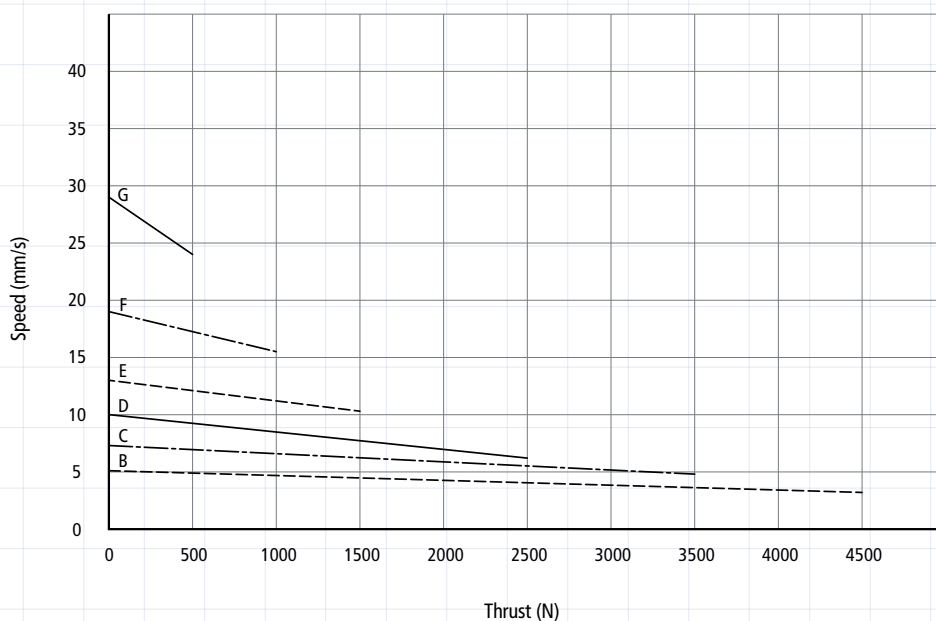
Current vs. Thrust

Note

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

Subject to technical changes and errors excepted.

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Drawing

Standard dimensions (mm)

Retracted length

14.9

ø10.2

51

ø26

4.2

ø13
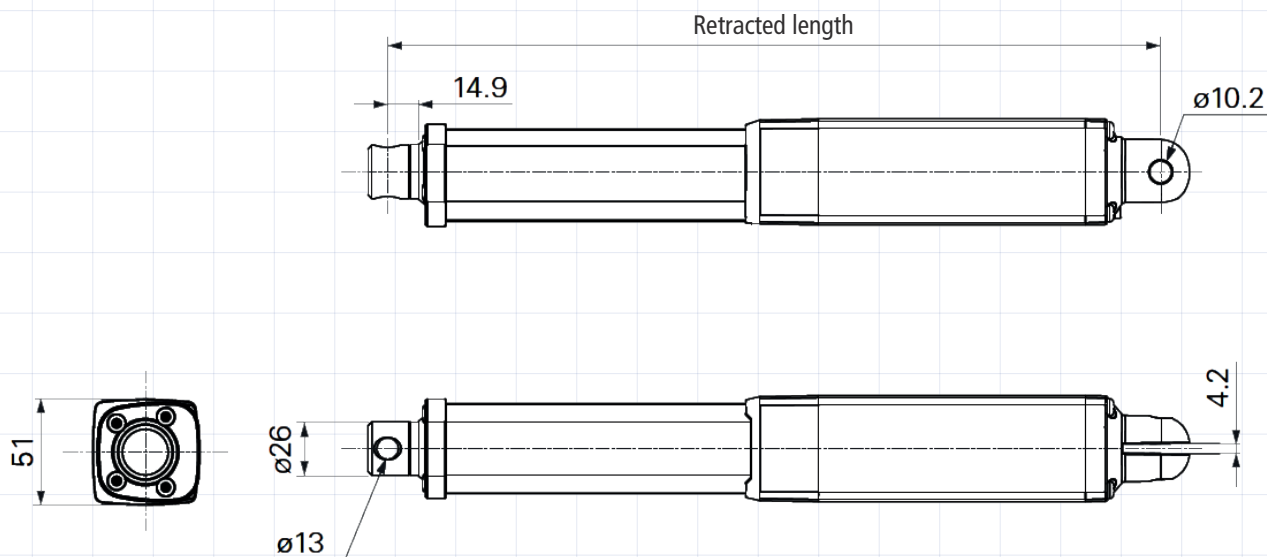
Retracted length (mm)

Retracted length ≥ Stroke+A+B

A	
Code front attachment	A
1	+289

B	
Stroke (mm)	B
20~150	-
151~200	-
201~250	+10
251~300	+20
301~350	+30
351~400	+40

For stroke over 400 mm + 10 mm for each incremental 50 mm stroke.

VARIMAX AG . Power Transmission Technology . Normannenstrasse 14 . CH-3018 Bern
Phone +41 31 990 00 70 . info@varimax.ch . www.varimax.ch

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Ordering key (e. g.: JP4-1E-200489-11113-01021)

JP4-

☐	**Voltage**	1 = 12 V	2 = 24 V	5 = 24 V, PTC
☐	**Load and speed**	see page 2		
-				
☐	**Stroke (mm)**			
☐				
☐				
☐	**Retracted lenght (mm)**	see page 5		
☐				
☐				
-				
☐	**Rear attachment**	1 = aluminum casting, U clevis, slot 4.2 mm, depth 18.0 mm, hole 10.2 mm		
☐	**Front attachment**	1 = #45 steel CNC, no slot, hole 13.0 mm		
☐	**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, 100 mm 1 = straight, 500 mm	3 = straight, 1000 mm	

Terms of use

The user is responsible for determining the suitability of VARIMAX products for a specific application.
VARIMAX products are subject to change without prior notice.

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