

Linear Actuator LA27

Data Sheet



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Introduction

The actuator LA27 is a powerful actuator designed for a variety of medical applications. It is developed for both push and pull applications and has a very robust construction because of the ultrasonic-welded plastic housing.

The LA27 is equipped with a plug to connect an exchangeable cable with Mini-Fit connector. This gives the possibility to order standard actuators and combine them with different cable lengths.

Features and options

- 24V DC permanent magnet motor
- Load up to 6000 N (in push application)
- Load up to 4000 N (in a pull application)
- Dynamic push and pull: Actuators are designed for push or pull applications. If a combination is required, please contact your local LINAK salesperson.
- Elegant and compact design with small installation dimensions
- Protection class: IPX4, IPX6
- Colour: Light grey (RAL7035) or dark grey (RAL 7016)
- Built-in end stop switches (not adjustable)
- Possible to mount on control box CB6 by means of a special mounting clip (article no. 009271002 is delivered with CB6)
- Scratch and wear resistant powder-painted steel inner tube
- Brake ensures the self-locking ability in either push or pull directions. There will always be a reduction of the self-locking characteristic when the actuator is run in the opposite direction of the brake direction (see table 1)
- Noise level 50dB(A), actuator not loaded

Usage

Duty cycle: 2/18; 2 minutes continuous use followed by 18 minutes not in use

Ambient temperature: +5 °C to +40 °C (the actuator must also have this temperature)

Approval: IEC 60601-1, ANSI/AAMI ES 60601-1, CAN/CSA C-22.2 No. 60601-1

With connection to a static voltage power supply of 33 V, the lifetime could be reduced to 5000 cycles (at a constant load of 6,000 N).

Allowable load

Combi code						Max. load		Typical amp.		Self-locking
Actuator type	Pitch	Safety option	Brake	Max. stroke	Min. stroke	PUSH	PULL	Max. current at max. load	Average current at max. load	Short-circuit ON
27	X	X	X							
27	050	0	0	300	50	2000	2000	3.3	3.3	2000
		A					-			
		C					-			
		D					-			
		0	1			3500	-			3500*
		A								
		C								
		D								
0	2	-	3500							
27	090	0	0	405	50	750	750	3.5	2.7	750
		A					-			
		C					-			
		D					-			
		0	1			1500	-			1500*
		A								
		C								
		D								
0	2	-	1500							
27	040	0	0	250	50	3000	3000	5	4.6	3000
		A					-			
		C					-			
		D					-			
		0	1	251 - 300		4000	-			4000
		A								
		C								
		D								
		0	2	250		-	4000			4000
		1								
27	060	0	0	300	50	1000	1000	3.5	2.9	1000
		A					-			
		C					-			
		D					-			
		0	1			2500	-			2500*
		A								
		C								
		D								
0	2	-	2500							

* = See table 1 for self-locking when running in the opposite direction as opposed to the brake direction.

Max. Built-In Dimension (BID) is 700 mm.

Table 1

Reduced self-locking characteristics when the actuator is run in the opposite direction.

Pitch (mm)	Max. self-lock (N)
9	1000
4	2000
6	1500
5	-
3	2000

Built-in Dimensions (standard)

Standard	Standard + Mechanical Spline
S + 170 mm	S + 170 mm*

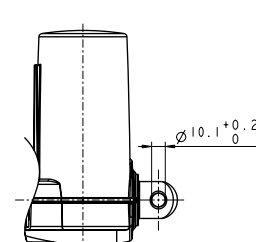
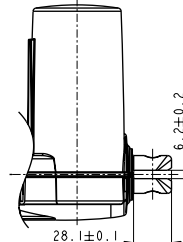
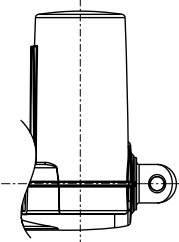
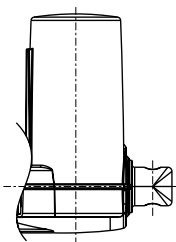
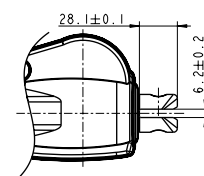
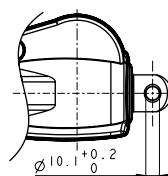
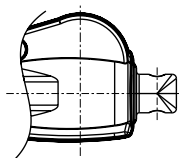
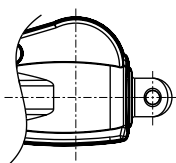
*If mechanical spline and piston rod eye with slot or mechanical spline and standard solid eyes are chosen, the built-in dimension is increased by 10 mm.

Ordering example

2	7	0	4	0	1	0	0	0	0	3	B	4	-	2	1	2	0	1	0	2	7	0	1	D	0	0	0	0	
																												Not used	0 = None
																												Not used	0 = None
																												Safety Factor:	0 = 2.0 1 = 1.5 2 = 2.5
																												Cable:	0 = None
																												Plug type:	D = Mini-Fit
																												Fire category:	1 = V0 2 = V2
																												Installation dimension:	XXXX = mm
																												Brake:	0 = None 1 = Brake PUSH 2 = Brake PULL
																												Option position:	0 = None
																												Piston rod eye:	1 = With slot 2 = Without slot
																												Back fixture:	1 = 0 degrees 2 = 90 degrees
																												Colour:	2 = Grey RAL7035 3 = Dark grey RAL7016
																												-	
																												IP:	4 = IPX4 6 = IPX6
																												Motor type:	B = 24 VDC, normal
																												Interface:	01 = Analogue 02 = OpenBus
																												Positioning:	0 = None H = Dual Hall encoded
																												Safety :	0 = None A = Safety nut C = Mech. spline D = Mech. Spline + safety nut
																												Stroke length:	XXX = mm
																												Spindle pitch:	040 = 4 mm 050 = 5 mm 060 = 6 mm 090 = 9 mm
																												Actuator type:	27 = LA27

*) Please contact your local LINAK contact regarding self-locking ability

Back fixtures

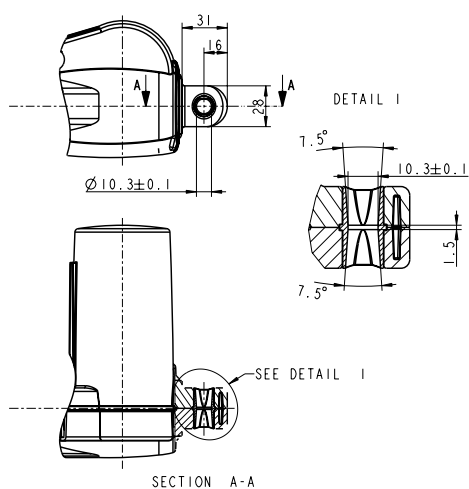


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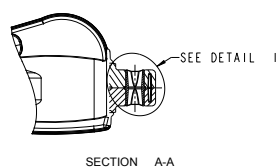
TYPE 02

TYPE 03

TYPE 04



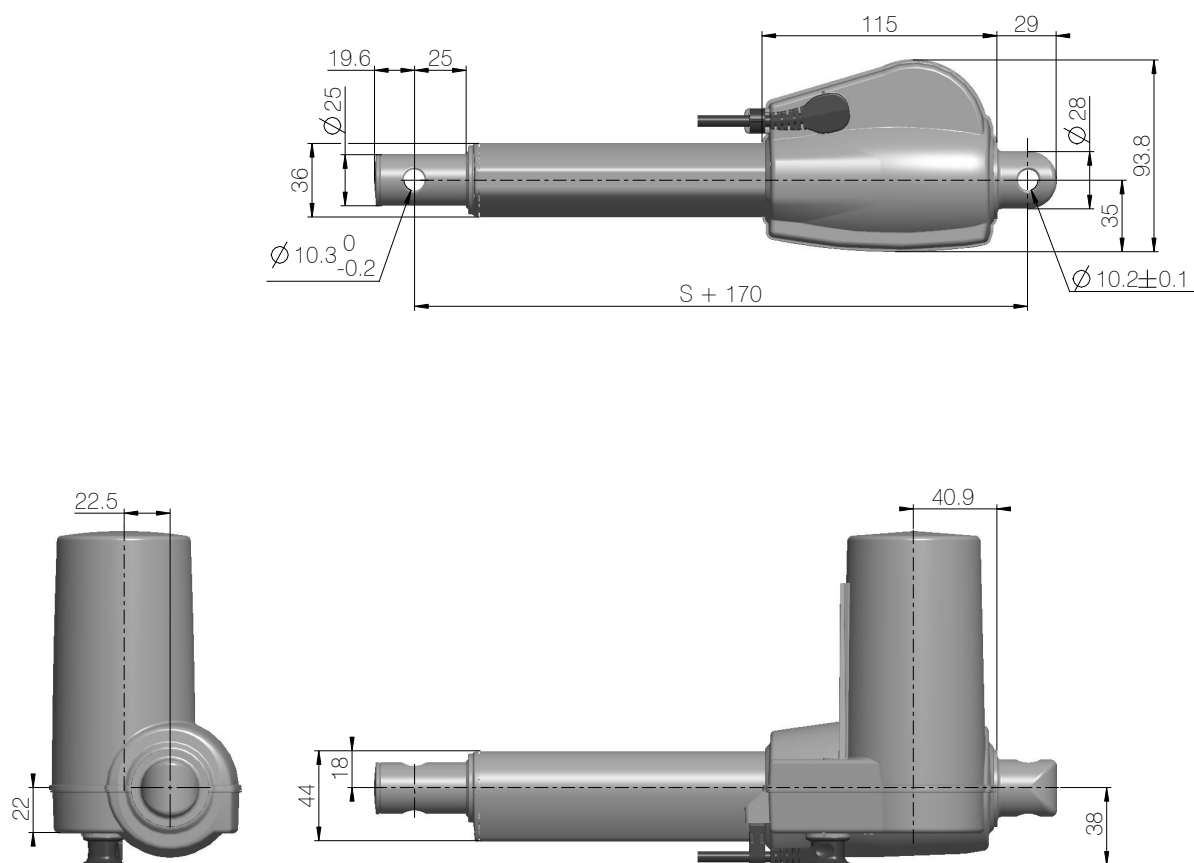
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TYPE 06

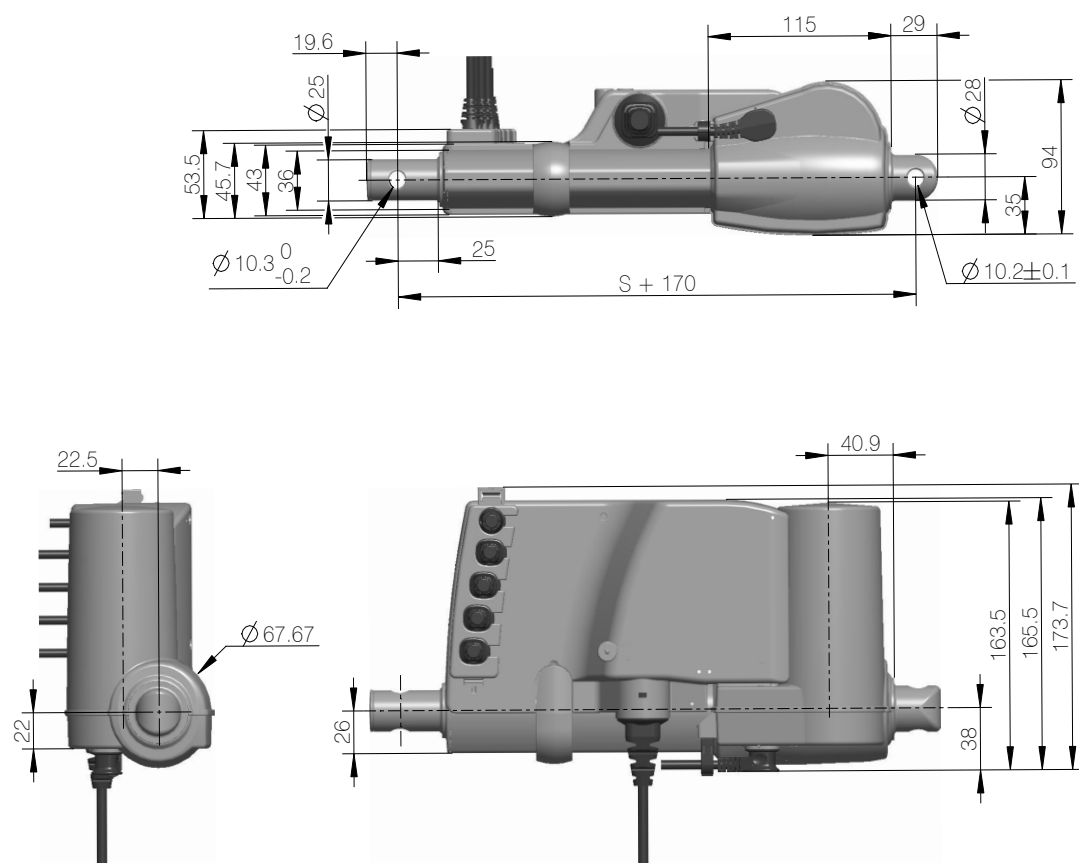
Dimensions LA27

All dimensions are in millimeters (mm).



Drawing no.: 0279056

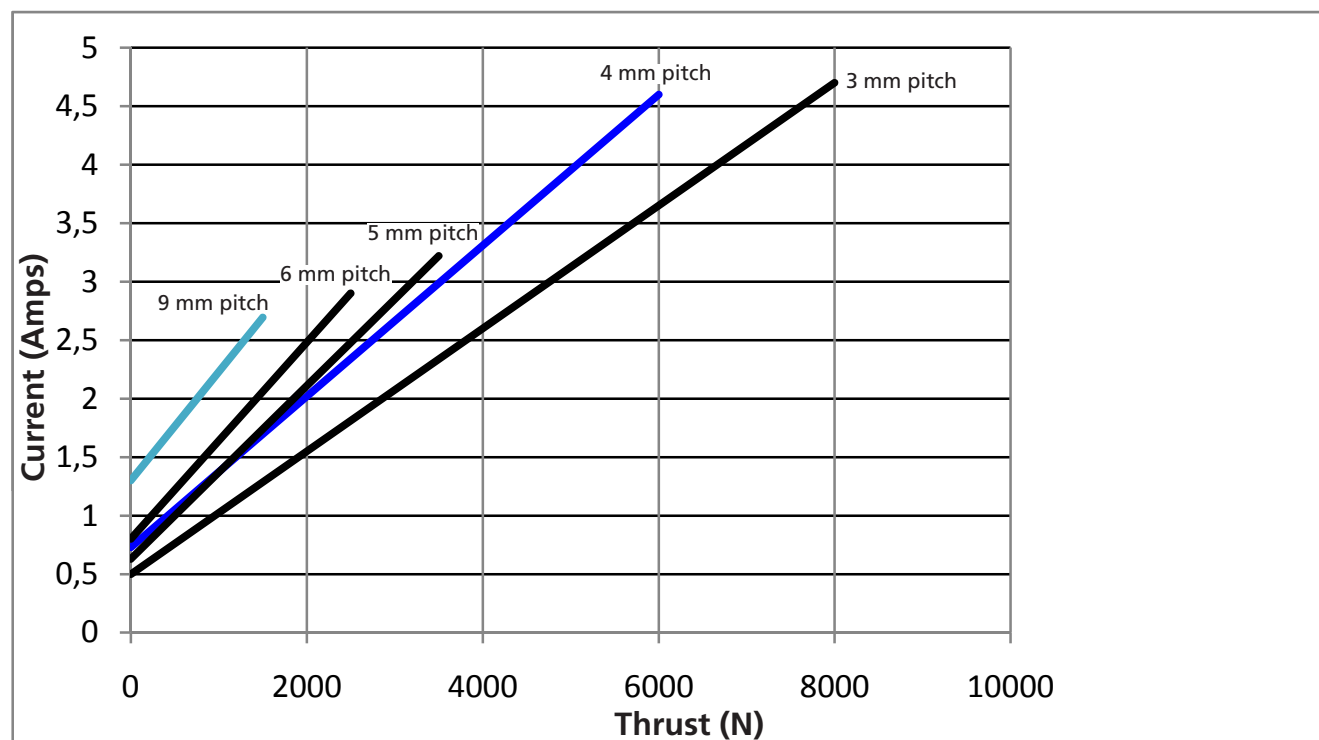
Dimensions LA27 with CB6



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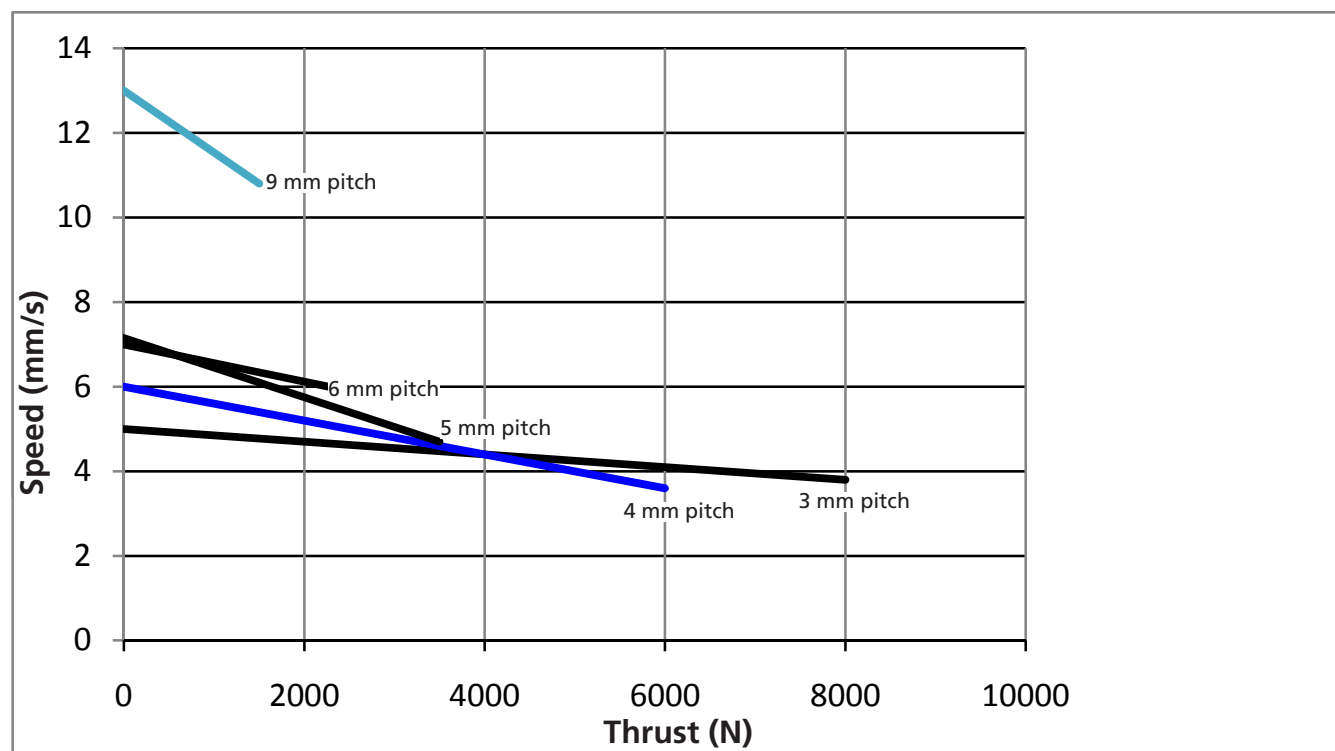
Speed and current curves

Current vs thrust (typical values), push with push brake



8000 N (3 mm pitch) version not available for new projects.

Speed vs thrust (typical values), push with push brake



Data measured in connection with CB6.

8000 N (3 mm pitch) version not available for new projects

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