

Linear Actuator LA27

Data Sheet



Contents

Introduction	3
Features and options	3
Usage	3
Allowable load	4
Built-in Dimensions (standard)	5
Ordering example	6
Back fixtures	7
Dimensions LA27	8
Dimensions LA27 with CB6	9
Speed and current curves	10

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 oC to +40 oC (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					-			
		0	1			3500	-	3500*		
		A					-			
		C					-			
		0	2			-	3500			
		A								
		D								
27	090	0	0	405	50	750	750	3.5	2.7	750
		A					-			
		C					-			
		0	1			1500	-	1500*		
		A					-			
		C					-			
		0	2			-	1500			
		A								
		D								
27	040	0	0	250	50	3000	3000	5	4.6	3000
		A					-			
		C					-			
		0	1			6000	-			6000*
		A					-			
		D					-			
		0	1	251 - 300		4000	-	4000		
		A					-			
		C					-			
		0	2	250		-	4000			
		1								
		D								
27	060	0	0	300	50	1000	1000	3.5	2.9	1000
		A					-			
		C					-			
		0	1			2500	-	2500*		
		A					-			
		C					-			
		0	2			-	2500			
		D								
		0								

* = 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*

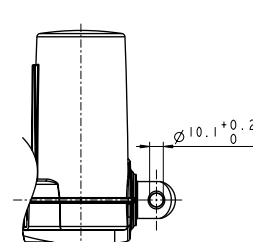
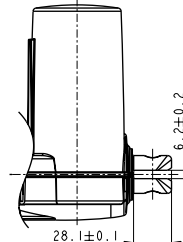
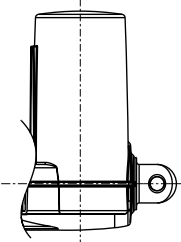
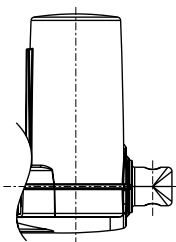
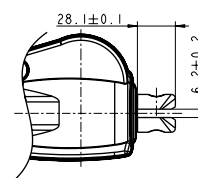
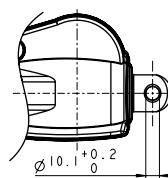
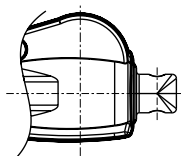
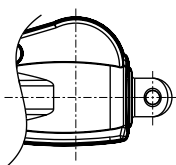
*If mechanical spline and piston rod eye with slot or mechanical spline and standard solid eyes are chosen, the built-in dimension is increased by 10 mm.

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 X = Special														
													Fire Category:	1 = V0 2 = V2														
													Install. Dim.:	XXXX = mm														
													Brake:	0 = None 1 = Brake PUSH 2 = Brake PULL														
													Option/Position:	0 = None X = Other														
													Piston Rod Eye:	1 = With slot 2 = Without slot X = Special														
													Back fixture:	1 = 0 degrees 2 = 90 degrees X = Special														
													Colour:	2 = Grey RAL7035 3 = Dark grey RAL7016 (not allowed with V0) X = Special														
													IP:	- 4 = IPX4 6 = IPX6														
													Motor Type:	B = 24VDC. Normal X = Other														
													Interface:	Description 01 = Analog*) 02 = OpenBus XX = Special														
													Positioning:	0 = None H = Hall X = Special														
													Safety :	0 = None A = Safety nut C = Mech. Spline D = Mech. Spline+Safety nut. X = Special														
													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

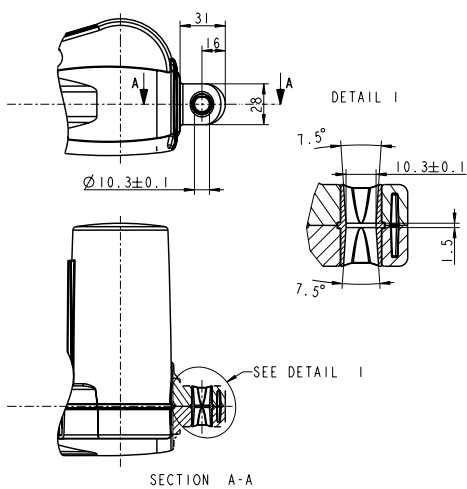


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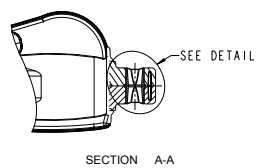
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TYPE 03

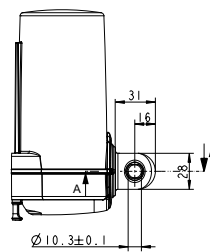
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TYPE 05



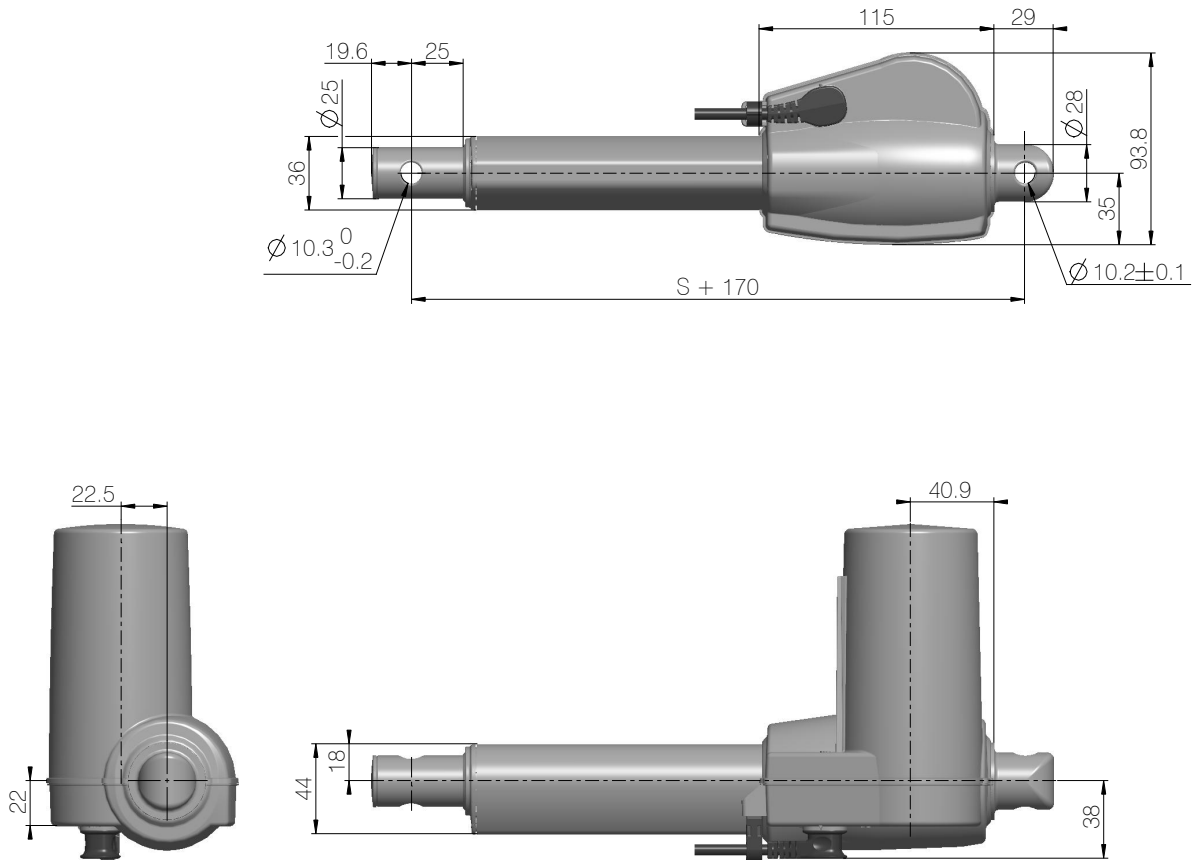
SECTION A-A



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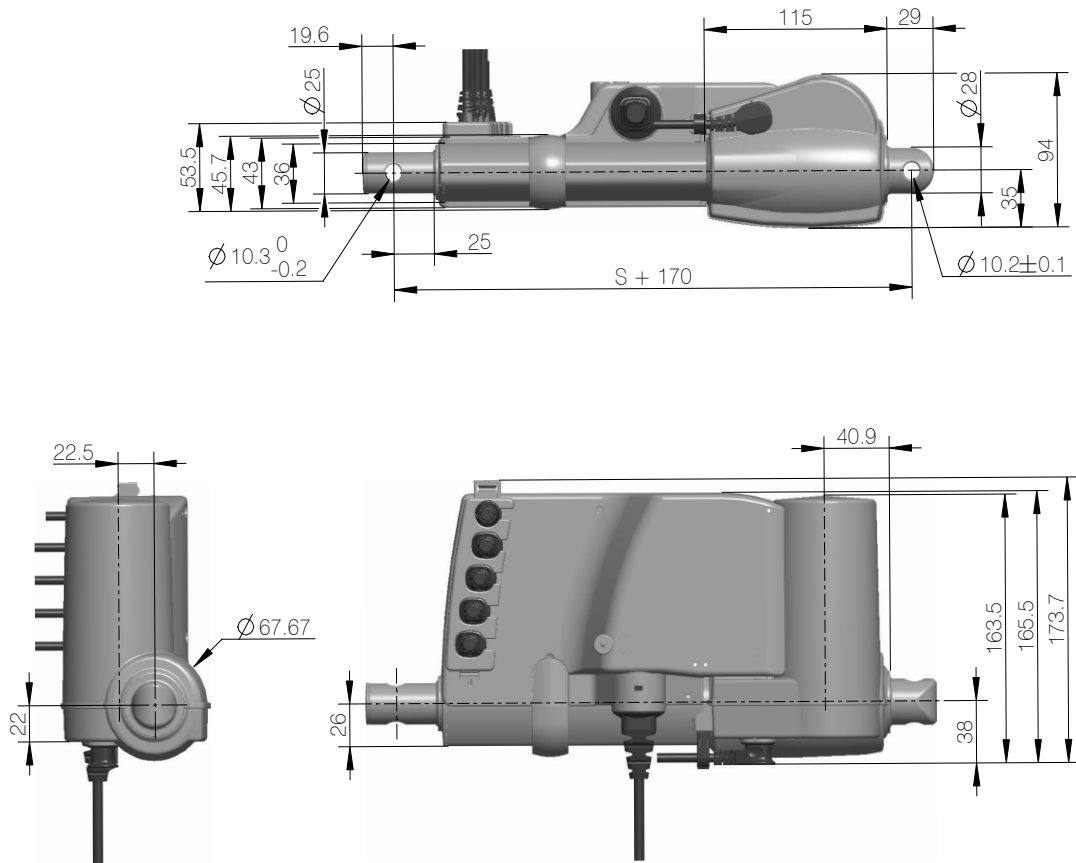
Dimensions LA27

All dimensions are in millimeters (mm).



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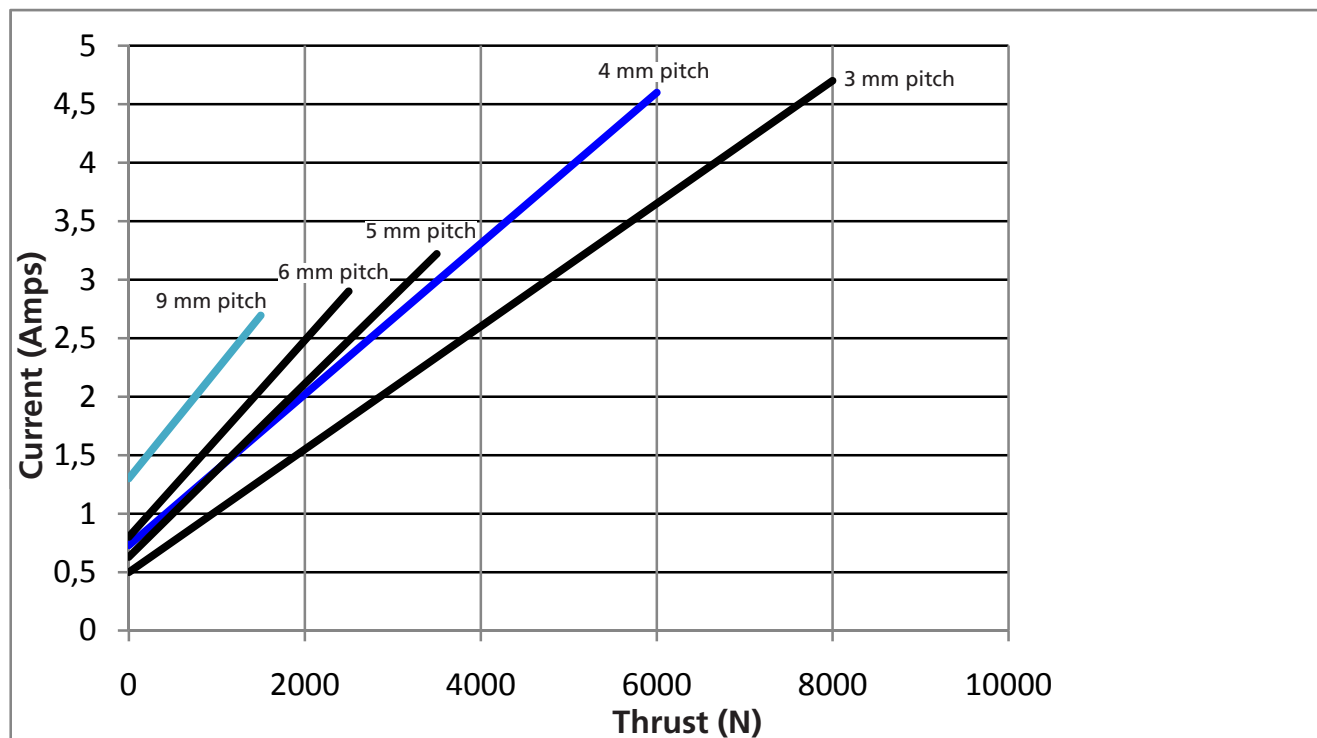
Dimensions LA27 with CB6



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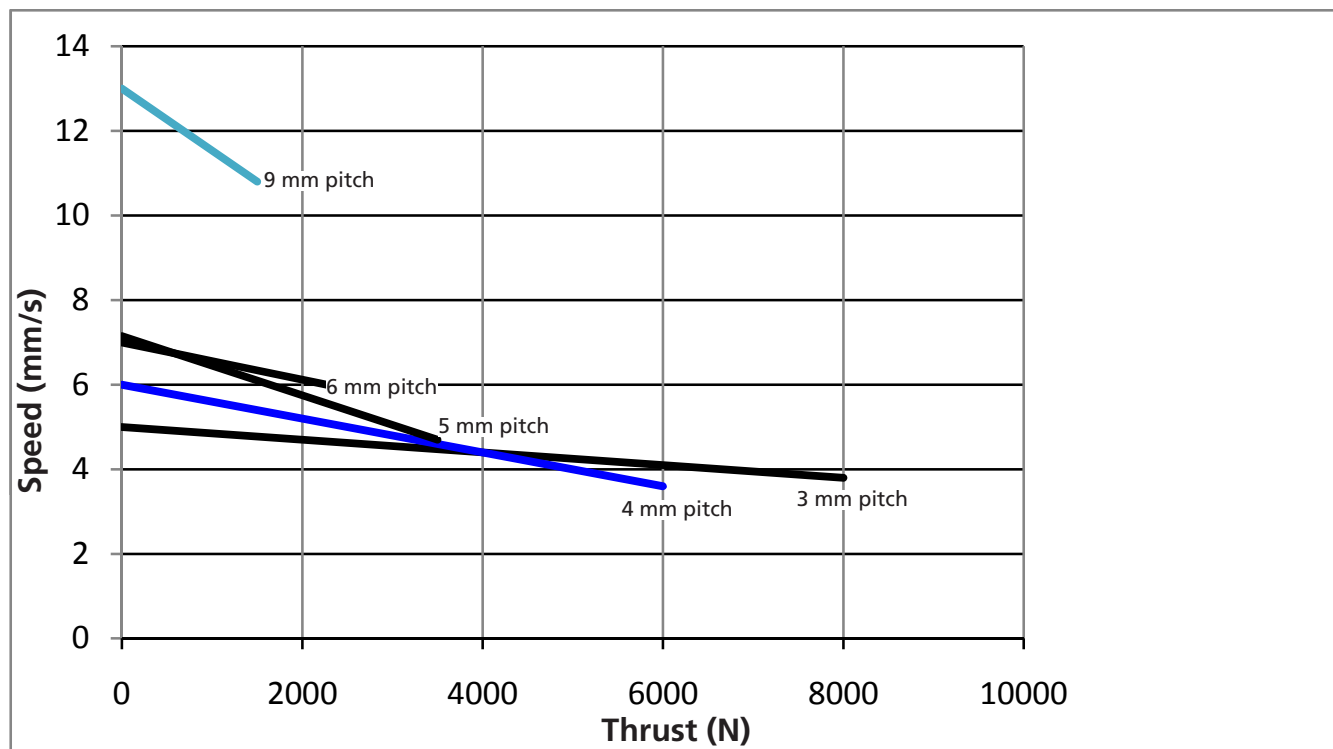
Speed and current curves

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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