

Linear Actuator LA29

Data Sheet



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Introduction



This particular LINAK® actuator is the ideal choice in medical equipment where power and speed are required, but where space is limited.

The LA29 has a very short installation dimension. However, the most special feature about this actuators is that the fixing points are independent of stroke length or position. In other words, the distance between the two fixing points is constantly small, no matter what the actuator is doing.

Another special feature here is the flexible back fixture. This helps the actuator adapt misalignments in the application, altogether making this actuator one of the most flexible in the LINAK product portfolio.

The LA29 is compatible with all LINAK control boxes for healthcare applications.

Properties:

- Max. thrust: 6,000 N
- Max. speed: 29.6 mm/s
- Compact design



Features and options

Load in push:	6,000 N
Load in pull:	4,000 N
Dynamic push and pull:	Actuators are designed for push or pull applications. If a combination is required, please contact your local LINAK salesperson.
Thrust:	Up to 6,000 N
Housing:	High-strength plastic protecting motor and gears
Colour:	Black plastic parts and natural anodized aluminium profile
Protection class:	IPX1
Motor:	24 V DC permanent magnet motor
Stroke length:	100 - 600 mm*
Minimum built-in dimensions:	319 mm at 100 mm stroke
Feedback options:	Reed or Hall
Noise level:	48dB(A); measuring method DS/EN ISO 3743-1, actuator not loaded.
Safety nut:	Yes
Back fixture:	Flexible, metal back fixture enabling up to 4,000 N in pull
Built-in electrical limit switch:	Not adjustable
Built-in endstop:	Power switch
Safety factor is:	2.5, up to 600 mm stroke
Spindle pitch:	3, 4, 5, 6, 9, 12 mm
Brake:	Increasing the self-locking ability

*Longer stroke lengths are possible as special article



Usage

Duty cycle:	10% or 2 minutes continuous use followed by 18 minutes not in use
Usage temperature:	+5 °C to +40 °C
Storage temperature:	-10 °C to 50 °C
Compatibility:	Compatible with LINAK control boxes. Please contact LINAK.
Relative humidity:	20% to 80% - non-condensing
Atmospheric pressure:	700 to 1060 hPa
Height above sea level	Max. 3000 meters
A CE Declaration of Conformity has been issued	



Technical specifications

Type	Spindle pitch (mm)	Thrust max. push (N)	Thrust max. pull (N)	* Self-lock max. (N) (push)	Typical speed (mm/s) 0/ full load		Motor type	Typical amp. (24V) at full load
291	3	6000	4000	6000	6.3	3.5	Std.	4.0
291	3	6000	4000	6000	8.1	4.3	Fast	4.5
294 with brake	4#	6000	4000	6000	8.3	4.3	Std.	4.3
294 with brake	4#	6000	4000	6000	10.7	4.8	Fast	5.1
292 with brake	5#	4000	4000	4000	10.3	6.4	Std.	3.9
292 with brake	5#	4000	4000	4000	13.5	7.4	Fast	4
297 with brake	6#	2500	2500	2500	12.1	9.0	Std.	2.5
297 with brake	6#	2500	2500	2500	16.7	11.2	Fast	3.1
293 with brake	9#	1500	1500	1500	18.3	14.4	Std.	2.5
293 with brake	9#	1500	1500	1500	23.1	17.6	Fast	3.1
296 with brake	12#	1000	1000	1000	25.1	19.5	Std.	2.4
296 with brake	12#	1000	1000	1000	29.6	23.4	Fast	3.2

The above measurements with the standard motor are made together with the CB9AE control box. Measurements with the fast motor are made with a control box featuring EAS.

- * LINAK control boxes are designed so that they will short-circuit the motor terminals (poles) of the actuator(s), when the actuator(s) are not running. This solution gives the actuator(s) a higher self-locking ability. If the actuator(s) are not connected to a LINAK control box, the terminals of the motor must be short-circuited to achieve the self-lock ability of the actuator.

All the above data is based on brakes 1 and 2 of the ordering example.



Ordering example

29	1	5	0	0	-	0	0	1	0	0	0	5	0
Cables													
Jack-cables													
0 = Straight 2.4 m													
1 = Straight 1.1 m													
2 = Coiled 0.4 m													
3 = Coiled 0.2 m													
IP-Degree:													
Motor type:													
Stroke length:													
Brake:													
Option:													
Colour:													
Option: Position													
Option:													
Back Fixture:													
Spindle type:													
Actuator Type:													

DIN cables

A = Straight 2.4 m

B = Straight 1.1 m

C = Coiled 0.4 m

D = Coiled 0.2 m

Exchangeable cables

K = 80 mm for Hall

P = 80 mm

5 = IIPX1

0 = 24 VDC Standard

3 = 24 VDC, fast motor/single worm gear

4 = 24 VDC, fast motor/double worm gear

5 = 12 VDC

XXX = mm (in steps of 50 mm, from 100 to 600 mm)

0 = None

1 = Brake push

2 = Brake

0 = Standard

- = Black, RAL 9005

0 = None

R = Reed switch (only available with DIN cable)

H = Hall

0 = Standard

1 - 2 Standard with 10 mm slot

5 - 6 Flexible

1 = 3 mm

2 = 5 mm

3 = 9 mm

4 = 4 mm

6 = 12 mm

7 = 6 mm

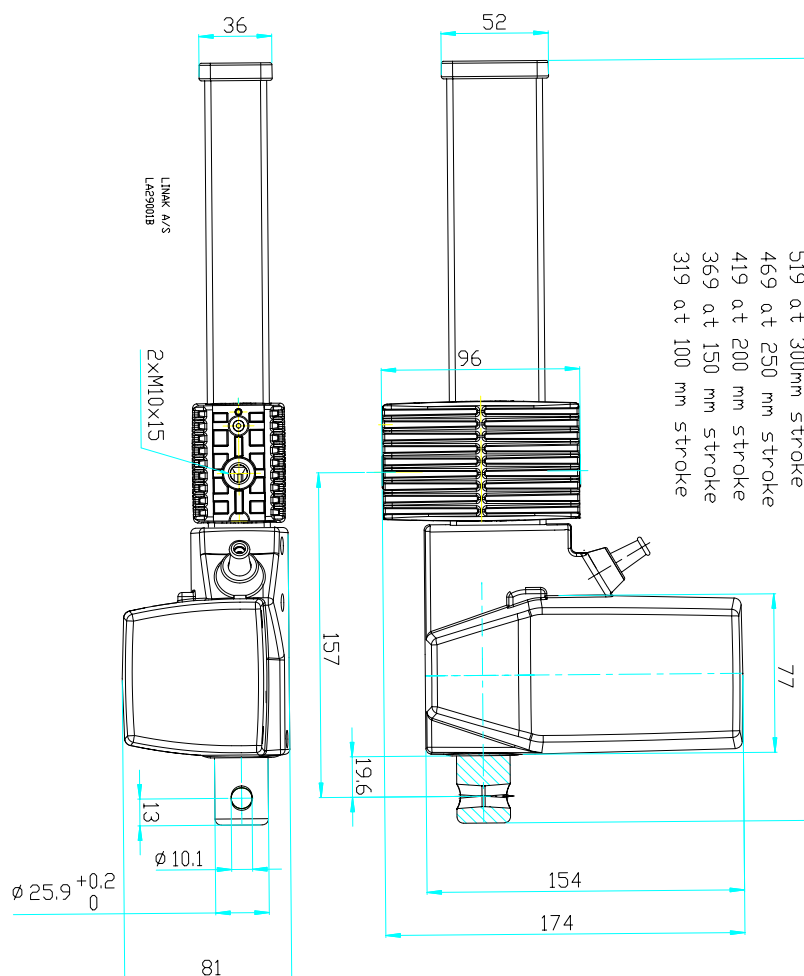
29 = LA29



Dimensions

LA29 with flexible back fixture

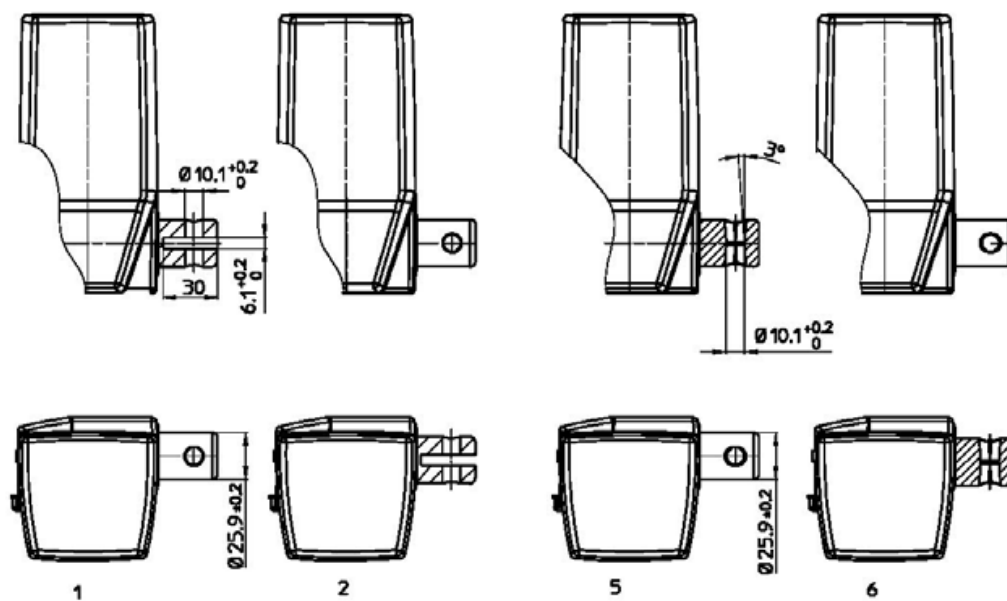
BID = Stroke + 219 mm



Drawing no.: LA29001B



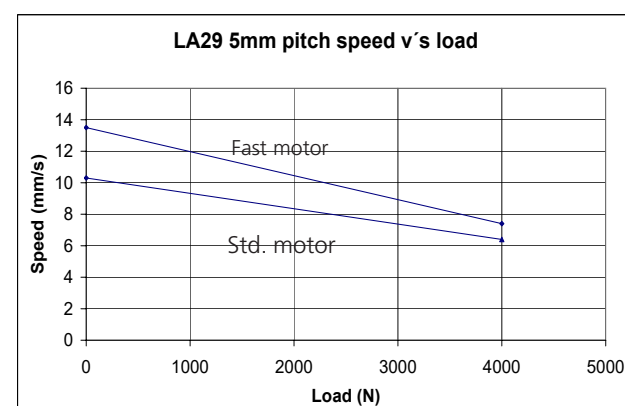
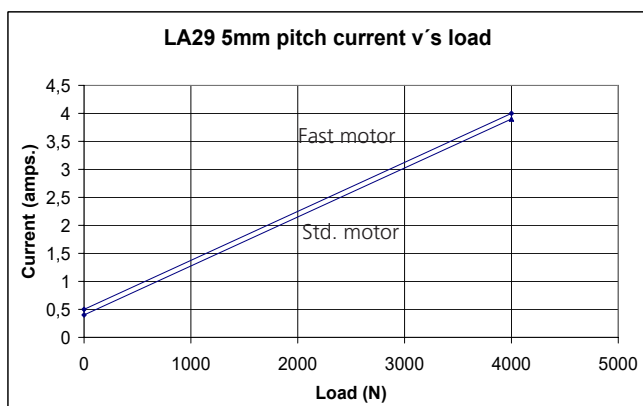
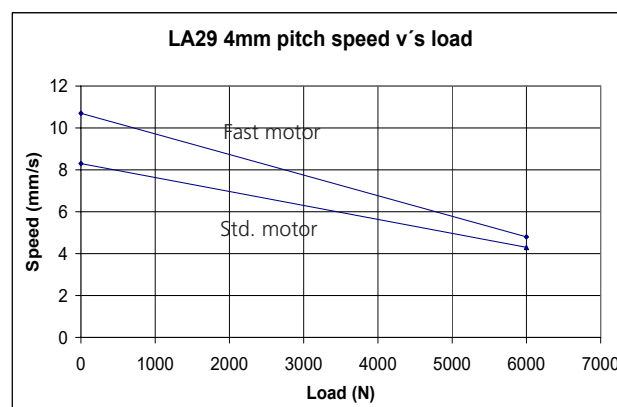
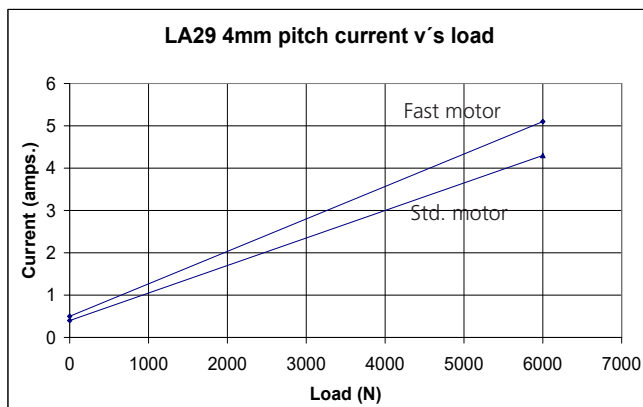
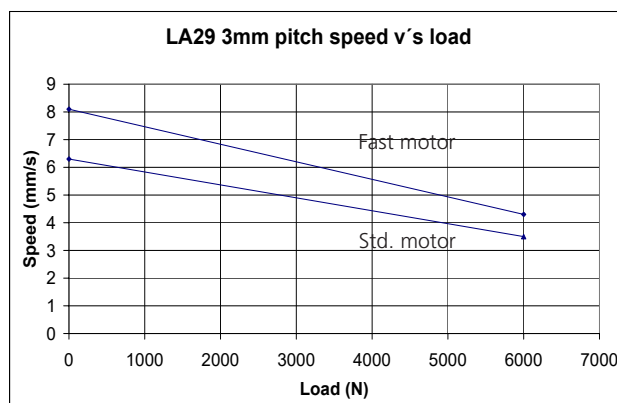
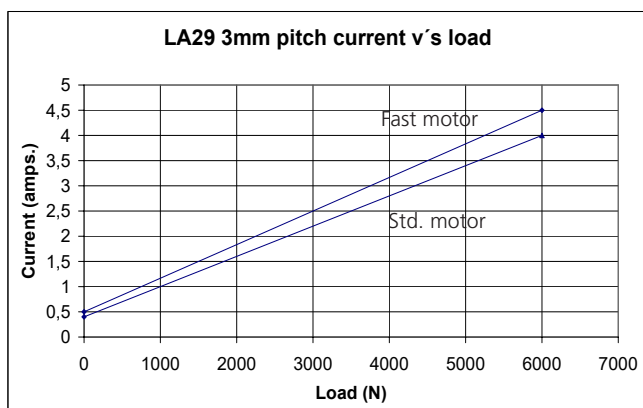
Flexible back fixtures



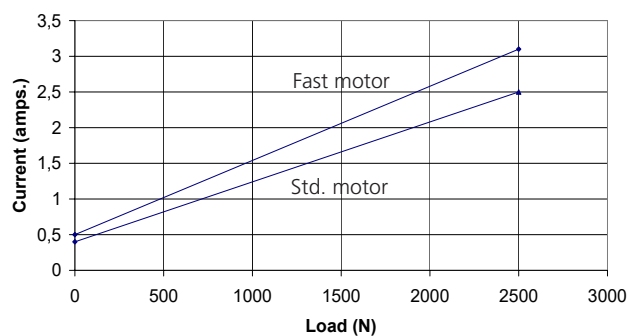
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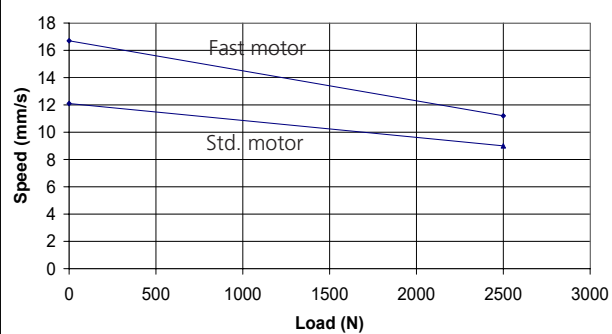
Speed and load curves



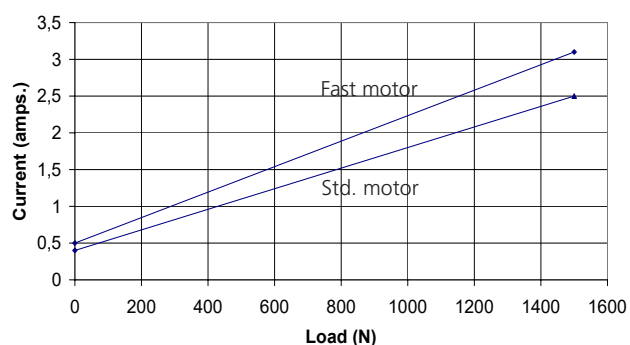
LA29 6mm pitch current v's load



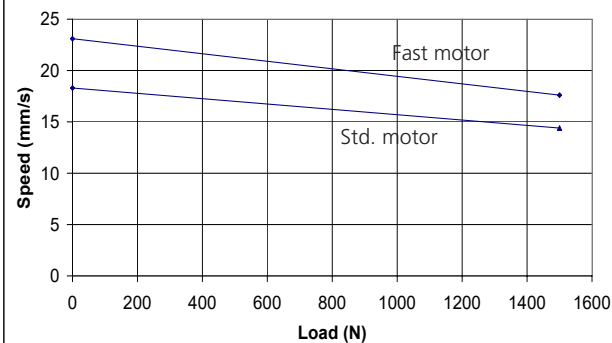
LA29 6mm pitch speed v's load



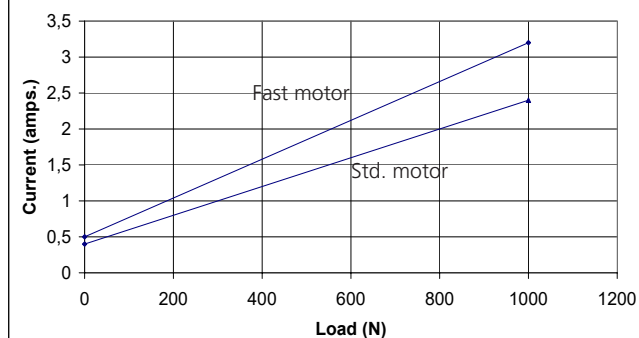
LA29 9mm pitch current v's load



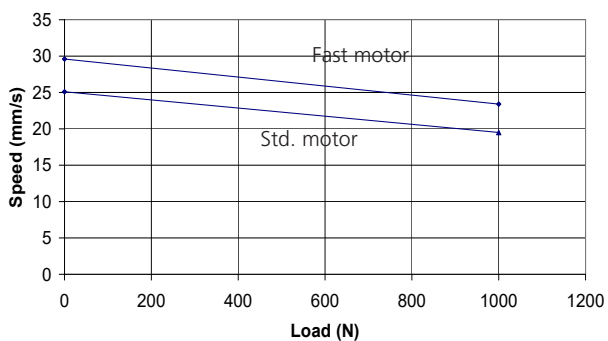
LA29 9mm pitch speed v's load



LA29 12mm pitch current v's load



LA29 12mm pitch speed v's load



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