

Linear Actuator LA24

Data Sheet



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Introduction



LA24 is a linear actuator primarily designed for healthcare applications, such as home care and nursing home beds.

It is available in 3,500 N, 2,500 N, and 1,400 N versions, all with an IPX6 rating. LA24 is ideal for 4-motor care bed applications and movement of leg rest and backrest in a variety of healthcare bed applications.

Features and options

Load in push:	3,500 N, 2,500 N, 1,400 N
Load in pull:	LA24 with mechanical spline = not suitable for pull LA24 without mechanical spline = Max. static pull = 500 N with safety factor 5 LA24 without mechanical spline = Max. pull = 500 N with safety factor below 5 Please contact LINAK sales engineer for support
Dynamic push and pull:	Actuators are designed for push or pull applications. If a combination is required, please contact your local LINAK salesperson.
Housing colour:	Light Grey (RAL7035)
Protection class:	IPX4 and IPX6
Motor:	24V DC, Standard (B)
Stroke length:	60 mm, 65 mm, 85 mm, 110 mm, 150 mm and 405 mm (405 mm is only possible with 1,400 N)
Built-in dimensions:	270 mm, 320 mm and 575 mm
Positioning options:	None
Back fixture material:	Plastic composite
Piston rod eye:	Ø10.2 mm with or without slot, Ø12.2 mm without slot
Back fixture:	Ø10.2 mm and Ø12.2 mm
Noise level:	≤50 dB[A]
Nut:	Guided
Safety nut:	In push
Mechanical spline:	Yes
Built-in end stop switches:	Yes (signal switches and analogue encoded)
Mechanical end stop:	Yes
Exchangeable cable:	Yes
Safety factor:	2.0



Usage

Operation temperature:	+5 °C to +40 °C
Storage temperature:	-10 °C to +50 °C
Duty cycle:	10% or 2 minutes continuous use followed by 18 minutes not in use
Compatibility:	Compatible with LINAK control boxes. Please contact LINAK for detailed information.
Relative humidity:	20% to 80% – non-condensing
Atmospheric pressure:	700 to 1060 hPa
Meters above sea level:	Max. 3000 meters
Approvals:	IEC60601-1 ANSI/AAMI ES60601-1 CAN/CSA-22.2 No 60601-1

Technical specifications

Actuator type	Motor type	Spindle pitch (mm)	Max. load push (N)	Self lock push (N)	Max. load pull without spline (N)	Power supply	Typical speed at 0/max. load (mm/sec.)	Typical current at full load (Amps)
LA24	Standard (B)	4	3,500	3,500	500*	24 VDC	5.9/4.8	3.5
						33 VDC	7.0/6.8	3.7
LA24	Standard (B)	5	3,500	3,500	500*	24 VDC	7.5/5.5	4.1
						33 VDC	9.6/8.2	4.3
LA24	Standard (B)	6	2,500	2,500	500*	24 VDC	8.8/7.0	3.5
						33 VDC	12.2/10.3	3.6
LA24	Standard (B)	9	1,400	1,400	500*	24 VDC	13.2/11.2	2.7
						33 VDC	18.2/16.2	2.8

* Max. static pull (with safety factor 5)



Information

- Cables must be ordered separately



Built-in dimension (BID) and stroke length (SL) compatibility matrix

Stroke length	Installation dimension					
	BID 270		BID 320		BID 575	
	with mech. spline	without mech. spline	with mech. spline	without mech. spline	with mech. spline	without mech. spline
SL 60	OK	OK	OK	OK	OK*	OK*
SL 65	OK	OK	OK	OK	OK*	OK*
SL 85		OK	OK	OK	OK*	OK*
SL 110			OK	OK	OK*	OK*
SL 150				OK	OK*	OK*
SL 405						OK*

Not possible

OK: Max. load 3.500 N

OK*: Max. load 1.400 N



Ordering example

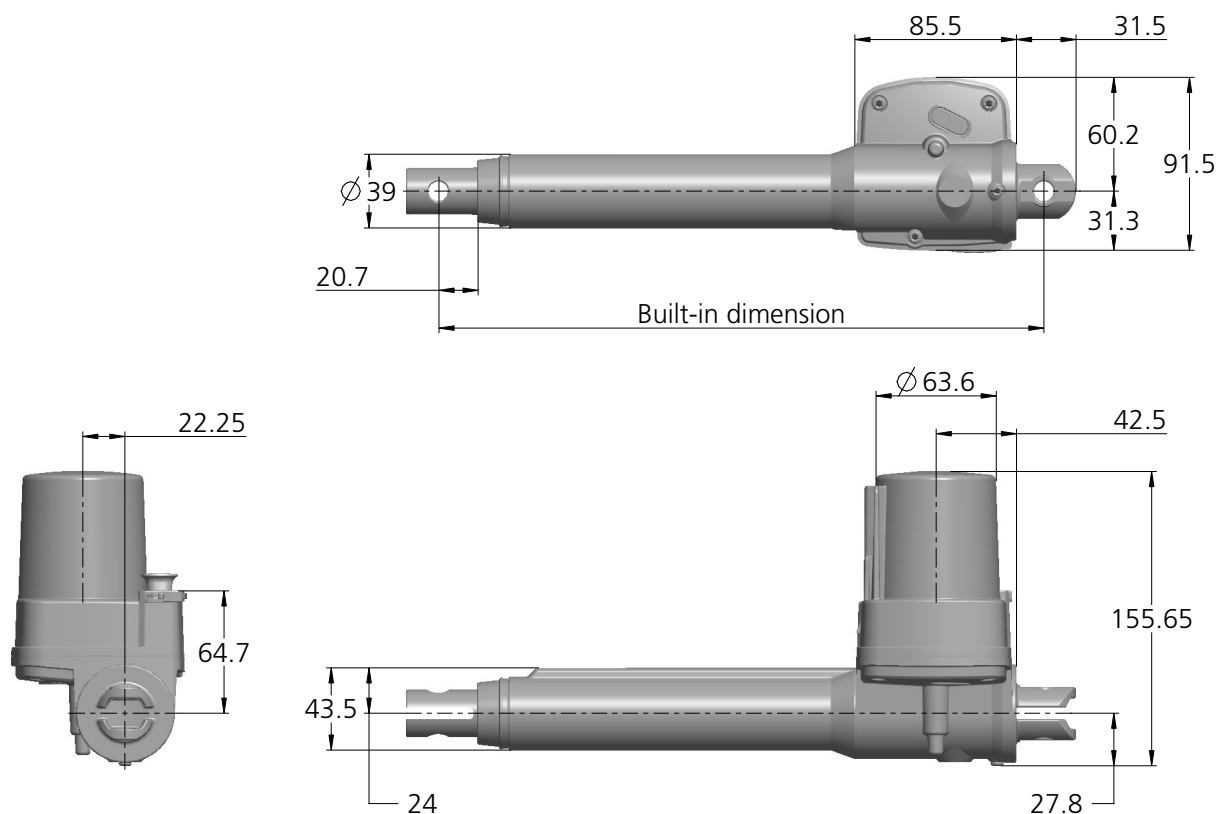
	LA		
Actuator type	24		
Spindle pitch	040	040 = 4 mm 050 = 5 mm 060 = 6 mm 090 = 9 mm	Push 3,500 N Push 3,500 N Push 2,500 N Push 1,400 N
Stroke length	060	060 = 60 mm 065 = 65 mm 085 = 85 mm 110 = 110 mm 150 = 150 mm 405 = 405 mm	
Safety	E	E = Mechanical end stop F = Mechanical end stop + Safety nut G = Mechanical end stop + Spline H = Mechanical end stop + Spline + Safety nut	
Feedback	0	0 = None	
End stop	01	01 = Signal switch 02 = Encoded	
Motor type	B	B = 24 V DC normal	
IP degree	4	4 = IPX4 6 = IPX6	
	-		
Enclosure	4	4 = Light Grey RAL7035, housing for LA24 compact	
Back fixture	1	1 = Standard 0° 2 = Turned 90° 3 = Standard 0° 4 = Turned 90°	hole Ø 10.2 hole Ø 10.2 hole Ø 12.2 hole Ø 12.2
Piston rod eye	0	0 = Punched 1 = Punched with slot 2 = Punched	hole Ø 12.2 without slot hole Ø 10.2 (hole Ø12,2 not available) hole Ø 10.2 without slot
Option position	0	0 = None	
Brake	1	1 = Brake push	
Installation Dimension (BID)	0270	0270 = 270 mm 0320 = 320 mm 0575 = 575 mm	
Fire category	2	2 = V2	
Plug type	D	D = Mini-Fit	
Cable	0	0 = None	
Safety factor	0	0 = 2.0	
Not used	0	0 = None	
Not used	0	0 = None	

LA24 comes with a pre-mounted cable lock, additional spares can be ordered as 0243022-A (cable lock for LA24 Compact, colour RAL7035).



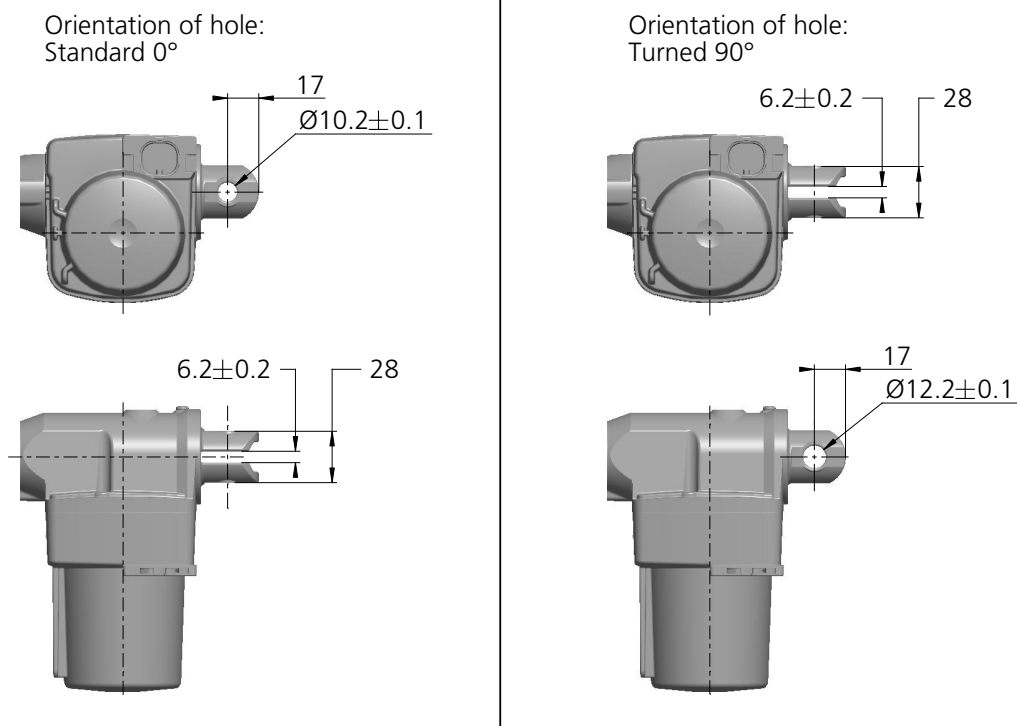
Dimensions

All dimensions are in mm.



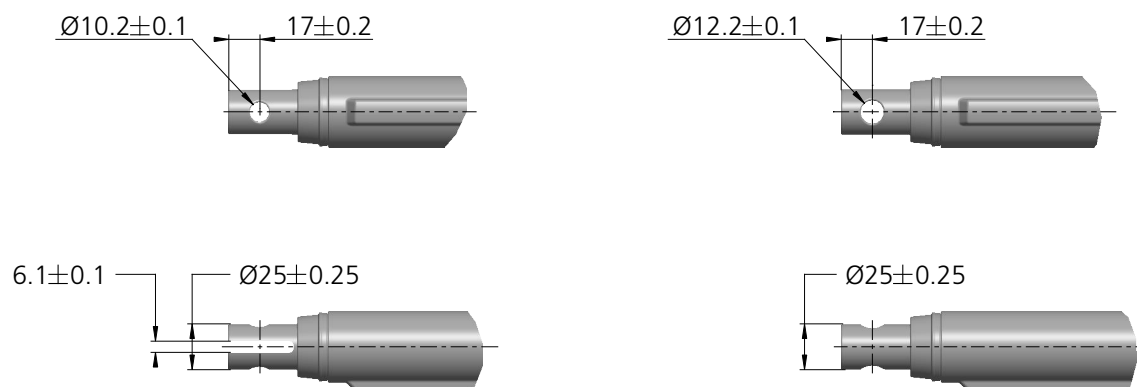
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Back fixture overview



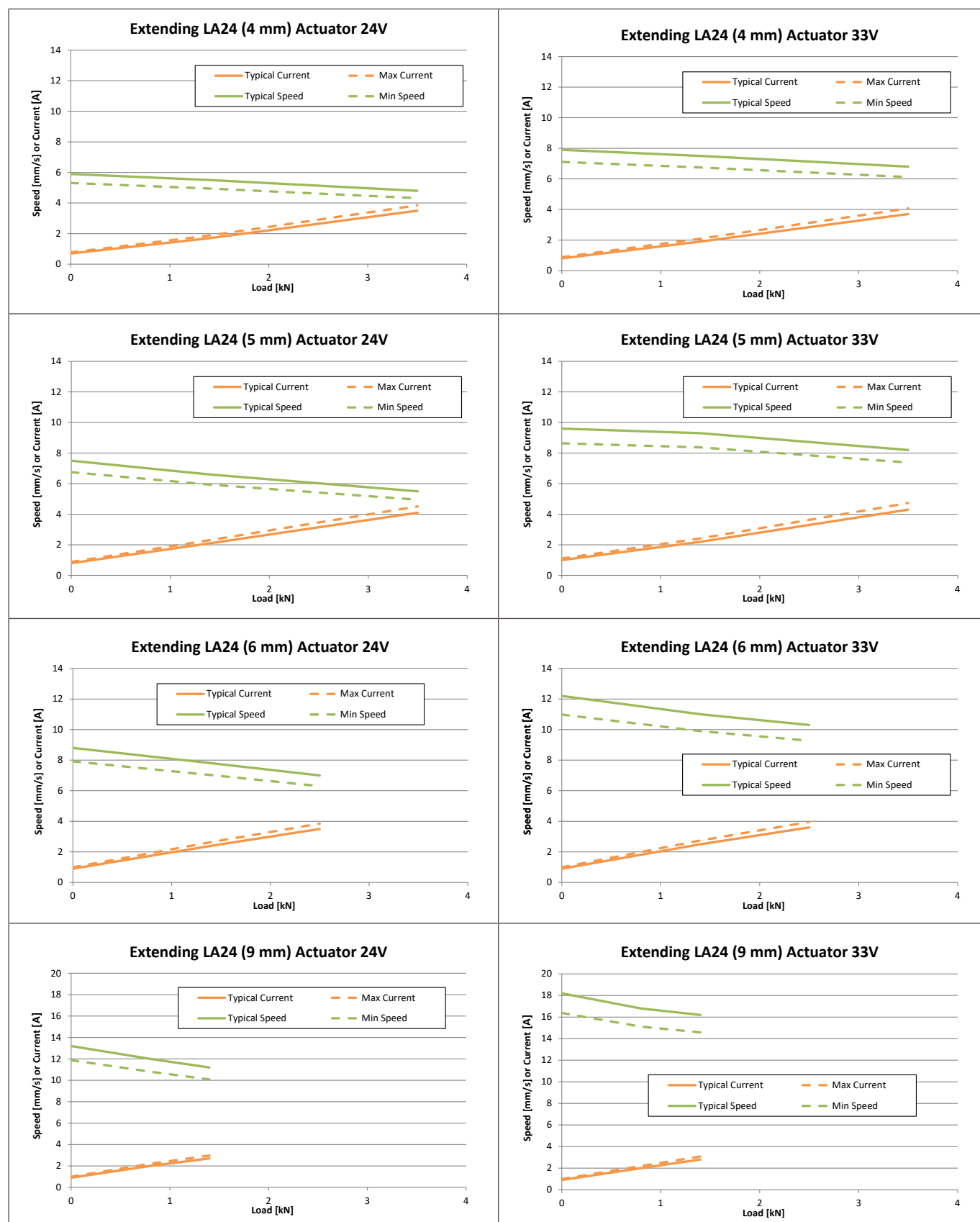
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Piston rod eyes



Drawing no.: 0244108

Speed, load and current curves



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