

Linear Actuator LA24

Data Sheet



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Introduction



LA24 is a compact actuator designed for a variety of medical and healthcare applications. The LA24 is also a part of the LINAK Spyder™ solution which is specifically developed for homecare bed applications.

It comes in 3,500 N, 2,500 N, and 1,400 N versions and is ideal for 4-motor care bed applications and movement of leg rest and backrest in a variety of healthcare bed applications.

Designed to support the mounting of the control box CA10, the LA24 is the ideal actuator for a compact and cost-efficient solution.

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
Housing colour:	Light Grey (RAL7035) or Dark Grey (RAL7016)
Protection class:	IPX4 and IPX6
Motor:	24V DC, Standard (B)
Stroke length:	60 mm, 65 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 110			OK	OK	OK*	OK*
SL 150				OK*	OK*	OK*
SL 405						OK*

Not possible

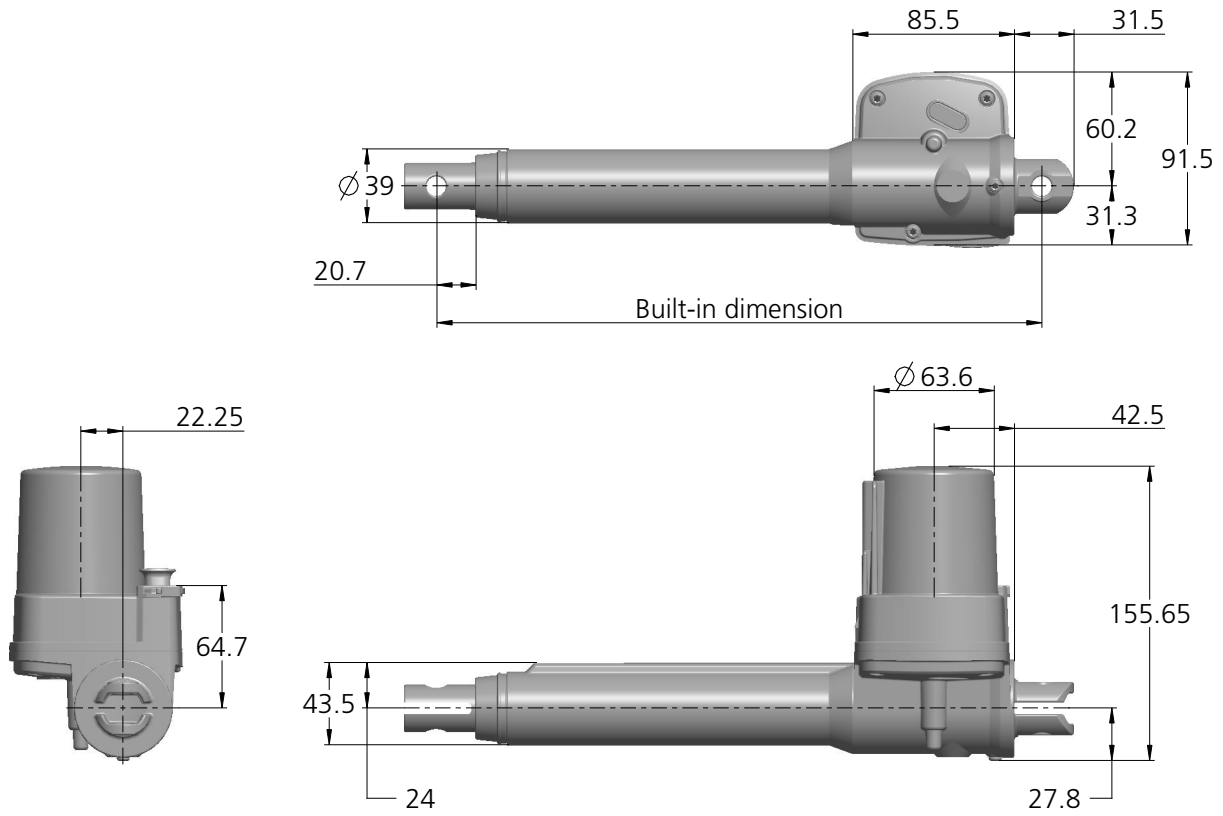
OK: Max. load 3.500 N

OK*: Max. load 1.400 N

Ordering example

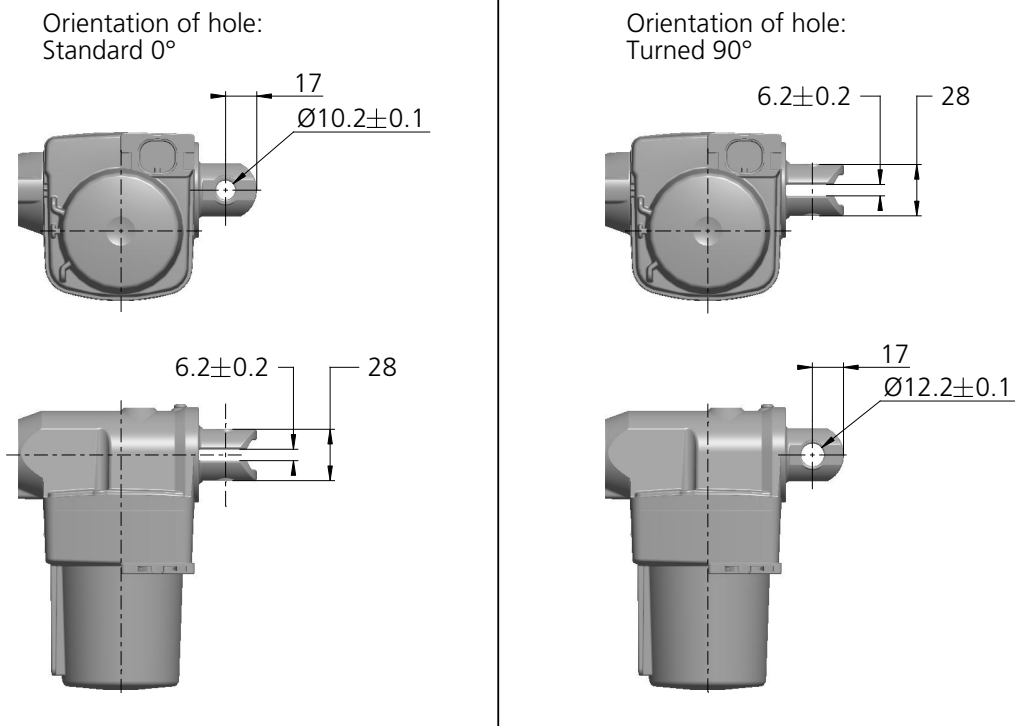
	LA		
Actuator type	<input type="text" value="24"/>		
Spindle pitch	<input type="text" value="040"/>	040 = 4 mm 050 = 5 mm 060 = 6 mm 090 = 9 mm	Push 3,500 N Push 3,500 N Push 2,500 N Push 1,400 N
Stroke length	<input type="text" value="060"/>	060 = 60 mm 065 = 65 mm 110 = 110 mm 150 = 150 mm 405 = 405 mm	Push 1,400 N only
Safety	<input type="text" value="E"/>	E = Mechanical end stop F = Mechanical end stop + Safety nut G = Mechanical end stop + Spline H = Mechanical end stop + Spline + Safety nut	
Feedback	<input type="text" value="0"/>	0 = None	
End stop	<input type="text" value="01"/>	01 = Signal switch 02 = Encoded	
Motor type	<input type="text" value="B"/>	B = 24 V DC normal	
IP degree	<input type="text" value="4"/>	4 = IPX4 6 = IPX6	
	<input type="text" value="-"/>		
Enclosure	<input type="text" value="2"/>	4 = Light Grey RAL7035, housing for LA24 compact 5 = Dark Grey RAL7016, housing for LA24 compact	
Back fixture	<input type="text" value="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	<input type="text" value="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	<input type="text" value="0"/>	0 = None	
Brake	<input type="text" value="1"/>	1 = Brake push	
Installation Dimension (BID)	<input type="text" value="0270"/>	0270 = 270 mm 0320 = 320 mm 0575 = 575 mm	
Fire category	<input type="text" value="2"/>	2 = V2	
Plug type	<input type="text" value="D"/>	D = Mini-Fit	
Cable	<input type="text" value="0"/>	0 = None	
Safety factor	<input type="text" value="0"/>	0 = 2.0	
Not used	<input type="text" value="0"/>	0 = None	
Not used	<input type="text" value="0"/>	0 = None	

Dimensions



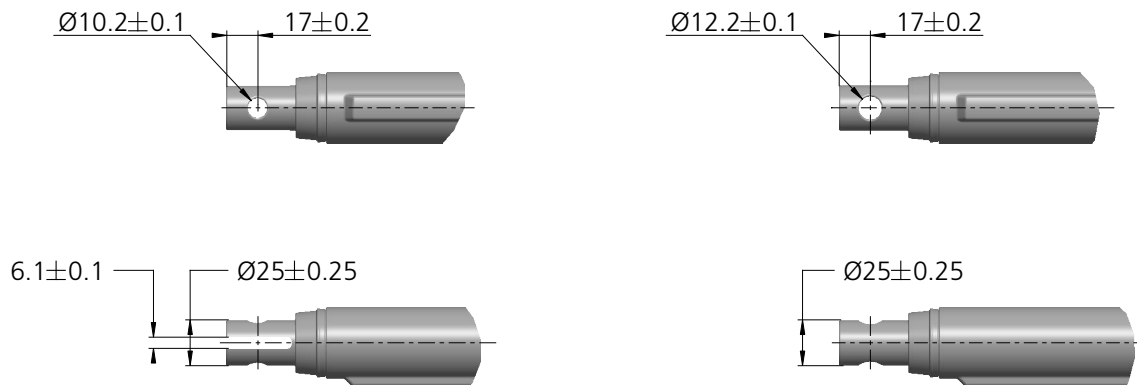
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Back fixture overview



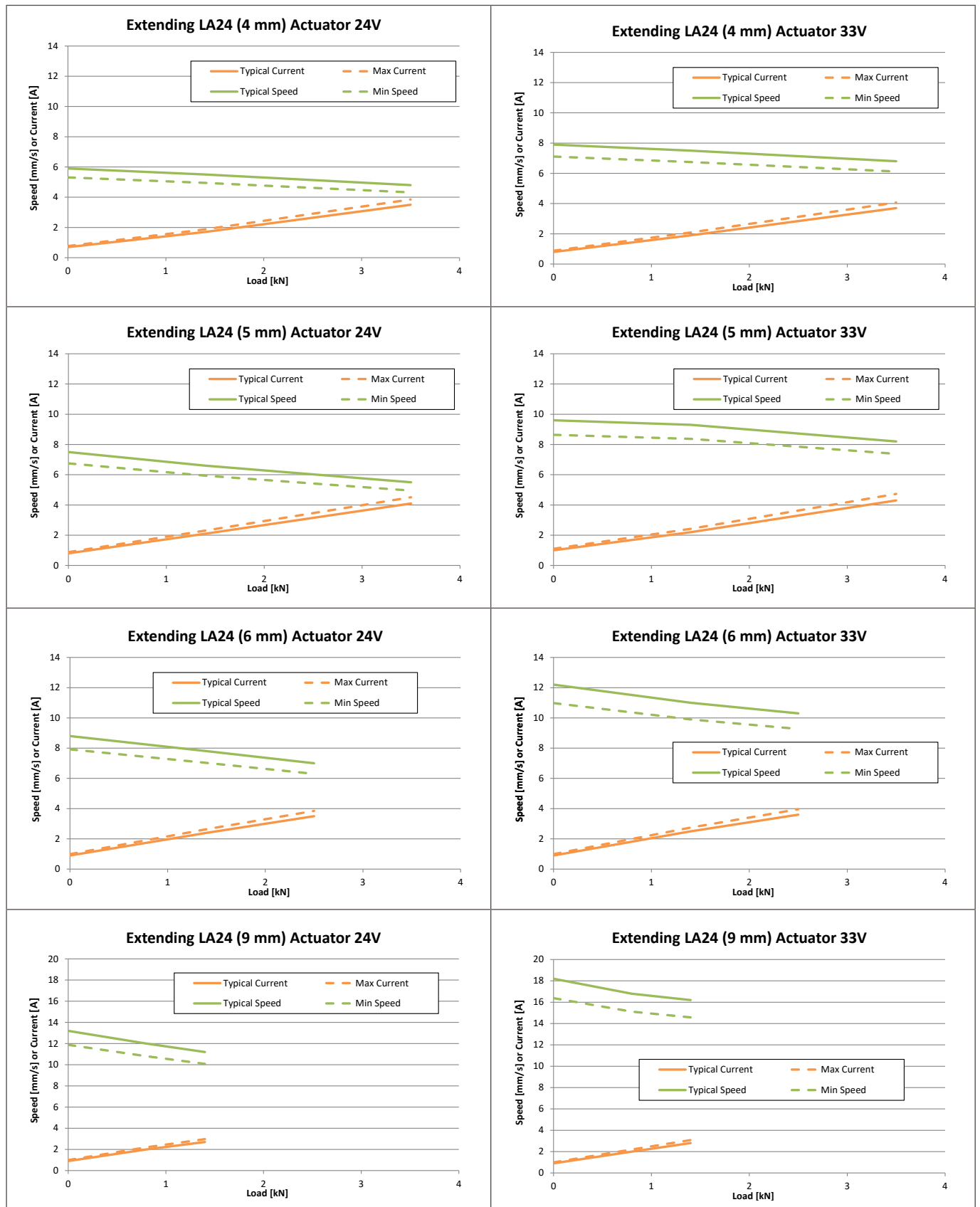
Drawing no.: 0244108

Piston rod eyes



Drawing no.: 0244108

Speed, load and current curves



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