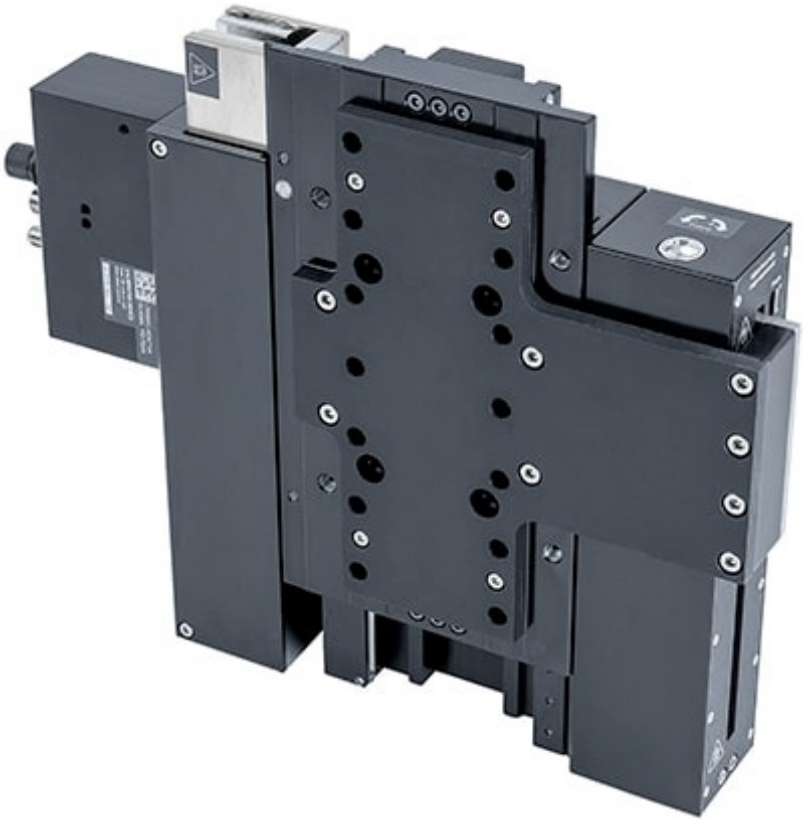
X-LDM060C-AE54ZJ1D12 Datasheet



- 40 mm or 60 mm travel
- Passive, user adjustable magnetic counterbalance for payloads up to 55 N
- High repeatability (80 nm) and accuracy (1 µm), with 25 nm minimum incremental move
- Direct position measurement from 1 nm resolution linear encoder
- Non-contact ironless linear motor for high precision, high dynamic performance & reliability
- Built-in controller; daisy-chains with other Zaber products
- One digital input and two digital outputs
- Learn more: Magnetic Counterbalances for High Performance Vertical Stages

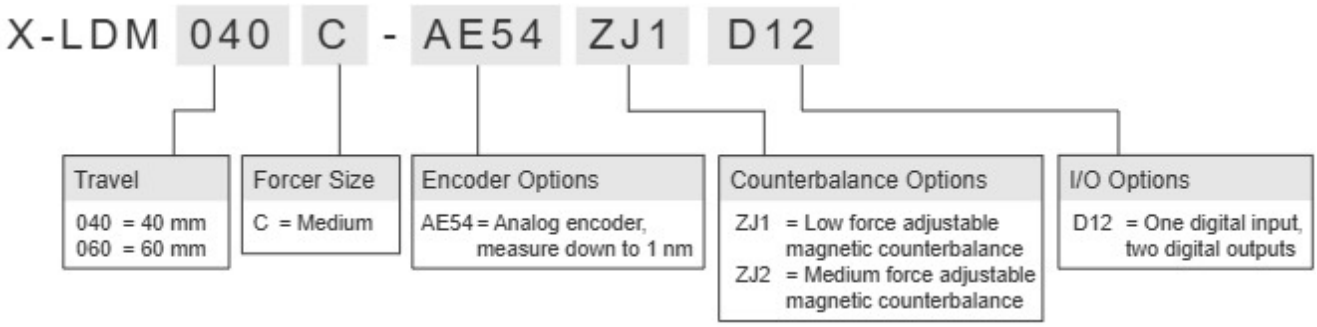
X-LDM-AEZ Series Overview

Zaber's X-LDM-AEZ Series devices are computer-controlled, motorized stages delivering the high precision, reliability, and speed of X-LDM-AE linear motor stages in a package for vertical applications. A passive magnetic counterbalance compensates for payloads up to 55 N, preventing unwanted motion during power loss. The counterbalance's force can be finely adjusted in seconds with a single screw.

These stages are stand-alone units requiring only a standard 48 V power supply. They connect to the RS-232 port or USB port of any computer and can be daisy-chained with any other Zaber products. The daisy-chain also shares power, making it possible for multiple X-Series products to share a single power supply. Like all of Zaber's products, the X-LDM-AEZ Series is designed to be 'plug and play' and very easy to set up and operate. X-LDM-AEZ devices also include a digital input and two digital outputs for interfacing with external systems. An event-driven trigger system allows devices to be programmed for stand-alone operation based on I/O, time, or movement stimuli.

For more information visit: https://www.zaber.com/products/vertical-stages/X-LDM-AEZ

X-LDM-AEZ Series Part Numbering & Options



X-LDM060C-AE54ZJ1D12 Drawings

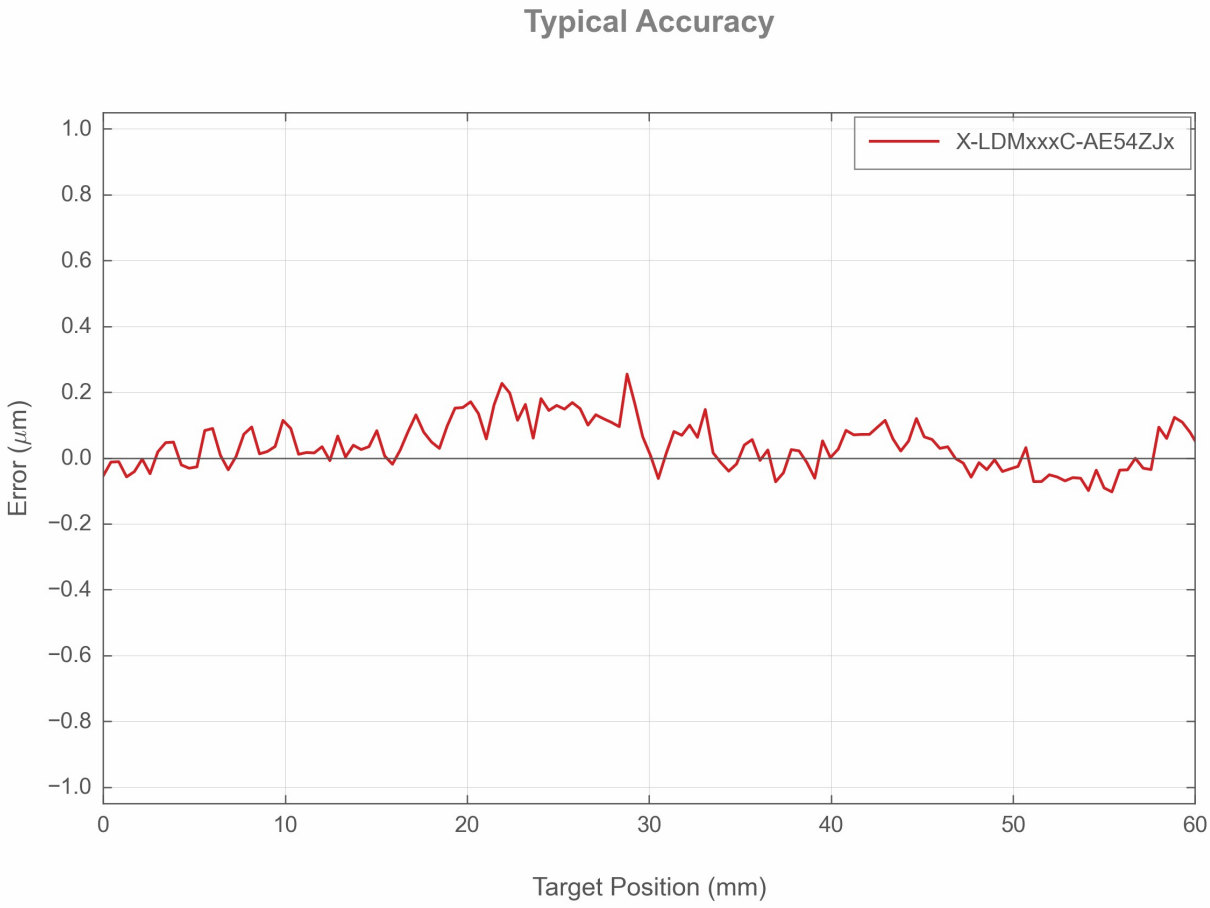
• dimensions_X-LDM-AEZ (Drawing for the X-LDM-AEZ)

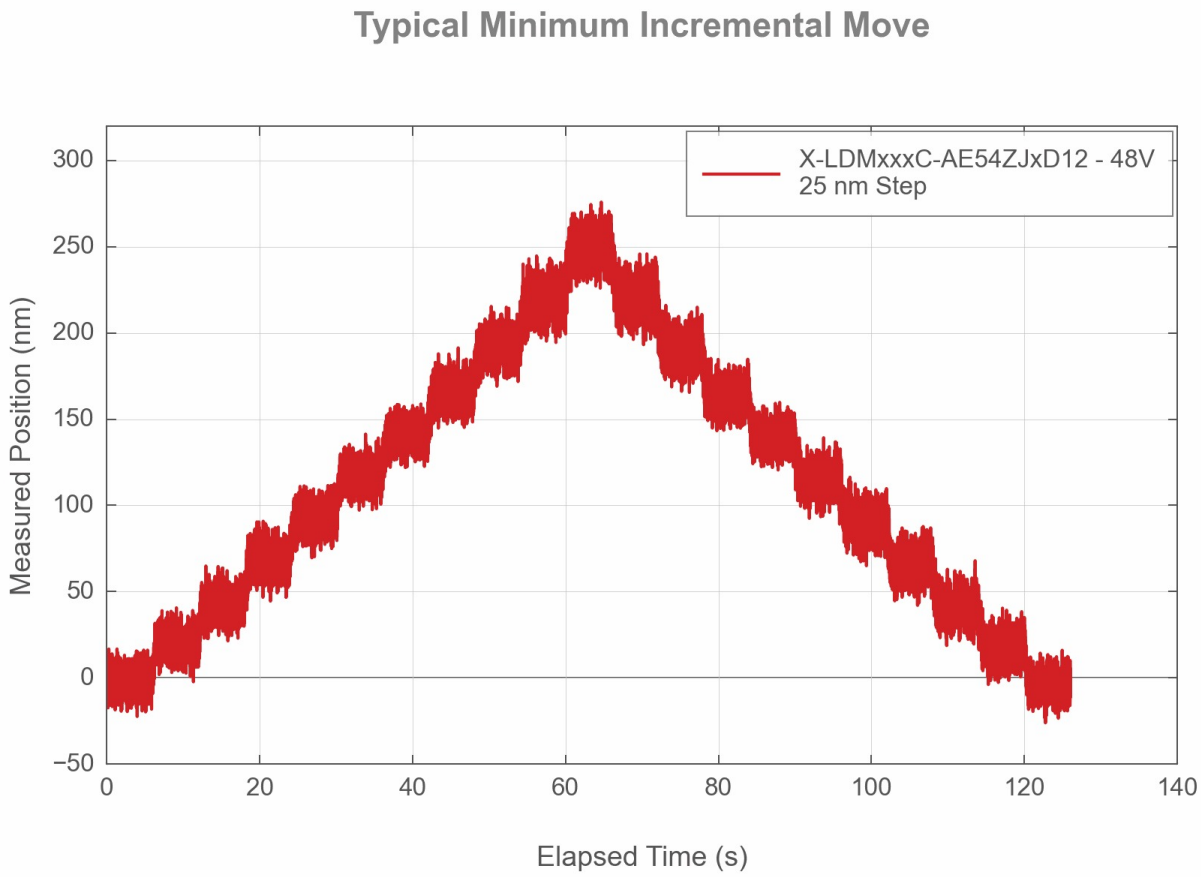
X-LDM060C-AE54ZJ1D12 Specifications

Built-in Controller	
Travel Range	60 mm (2.362")
Accuracy (unidirectional)	1 µm (0.000039")
Repeatability	< 0.08 µm (< 0.000003")
Minimum Incremental Move	25 nm
Maximum Acceleration	16 m/s2 (1.63 g)
Maximum Speed	800 mm/s (31.496"/s)
Minimum Speed	0.61 nm/s
Speed Resolution	0.61 nm/s
Encoder Type	Linear analog encoder
Encoder Count Size	1 nm
Peak Thrust	50 N (11.2 lb)
Maximum Continuous Thrust	25 N (5.6 lb)
Communication Interface	RS-232
Communication Protocol	Zaber ASCII (Default)
Data Cable Connection	Locking 4-pin M8
Maximum Moment (Pitch)	1200 N-cm (1699.3 oz-in)
Maximum Moment (Roll)	1200 N-cm (1699.3 oz-in)
Maximum Moment (Yaw)	1200 N-cm (1699.3 oz-in)
Horizontal Runout	< 4 µm (< 0.000157")
Pitch	0.003° (0.052 mrad)
Roll	0.002° (0.035 mrad)
Yaw	0.002° (0.035 mrad)
Counterbalance Type	Adjustable Magnetic
Counterbalance Payload Range	10-33 N (2.2-7.4 lb)
Power Supply	48 VDC
Power Plug	2-pin screw terminal
Maximum Current Draw	3000 mA

Built-in Controller	
Motor Type	Moving Magnet Track Linear Motor
Guide Type	Crossed-Roller Bearing
Limit or Home Sensing	Optical Index Mark
Manual Control	Indexed knob with push switch
Axes of Motion	1
LED Indicators	Yes
Mounting Interface	M6 threaded holes
Moving Mass	2.32 kg (5.104 lbs)
Digital Input	1
Digital Output	2
Operating Temperature Range	0 to 50 °C
CE Compliant	Yes
Vacuum Compatible	No
Weight	5.17 kg (11.398 lb)

X-LDM-AEZ Series Charts





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