

PLG110 Series Linear Positioning Stages

PLG110

S E R I E S



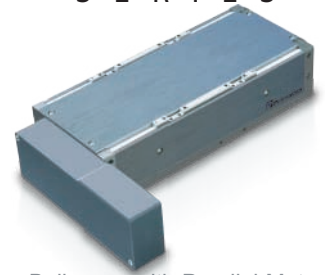
Linear Motor



Ballscrew with Frameless Motor



Ballscrew with In-Line Motor



Ballscrew with Parallel Motor

Feature Summary:

- Travels up to 600mm
- Loads up to 25 kg
- Internal linear or rotary encoder resolution to 0.1-microns
- Four motor options and two drivetrain options
- Adjustable limit & home sensors
- Aluminum or cast iron base
- All stages individually tested for accuracy, repeatability, straightness & flatness
- Class 10 cleanroom option

Overview

Primatics PLG110 Series positioning stages are the most compact of the all-purpose PLG series stages. Ideal for demanding applications such as inspection, attachment and alignment, the PLG110 offers unparalleled flexibility and allows the user to fit a high performance product into many different applications.

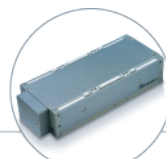
Motor Options

All PLG family stages are offered with four motor options; linear motor, frameless motor, in-line motor and parallel motor. The **linear motor** option offers the smoothness of a brushless linear motor in an entirely self-contained package. The **frameless motor** option integrates a brushless motor directly onto the ballscrew with no need for a motor coupler. The **in-line** and **parallel** versions accommodate a user supplied NEMA 23-sized servo or step motor. With over 6000 possible configurations, a model is available for any application.

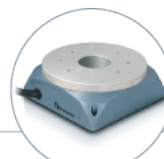
For more information and complete datasheets, go to www.primatics.com

Precision Grade Performance Specs	PLG110-50	PLG110-100	PLG110-150	PLG110-200	PLG110-300	PLG110-400	PLG110-500	PLG110-600
Travel (mm)	50	100	150	200	300	400	500	600
Error Mapped Accuracy w/E6 Linear Encoder (µm)	+/- 1.4						+/- 2.0	
Error Mapped Accuracy w/E4 Linear Encoder (µm)	+/- 1.0						+/- 1.5	
Positional Repeatability w/ Linear Encoder (µm) (0.1, 0.5, 1.0 µm resolution) ²	+/- 0.5, +/- 1.0, +/- 2.0							
Direct Loading Capacity (kg)	25							
Minimum Resolution w/ Linear Encoder (µm)	0.1							
PLG110 Linear Motor Only	-	PLG110-100	-	PLG110-200	PLG110-300	PLG110-400	PLG110-500	PLG110-600
Positional Accuracy (µm) over Total Table Travel ^{2,3}	-	+/- 3.5	-	+/- 5	+/- 6	+/- 7	+/- 9	+/- 10
Straightness of Travel (µm) over Total Table Travel ²	-	+/- 2	-	+/- 3	+/- 3.5	+/- 5	+/- 6	+/- 7
Flatness of Travel (µm) over Total Table Travel ²	-	+/- 1	-	+/- 2	+/- 2.5	+/- 3.5	+/- 4.5	+/- 5
Max Speed (mm/s) ⁴	+/- 1000							
PLG110 Ballscrew Motor Only	PLG110-50	PLG110-100	PLG110-150	PLG110-200	PLG110-300	PLG110-400	PLG110-500	PLG110-600
Positional Accuracy w/Linear Encoder (µm) ²	+/- 3	+/- 3.5	+/- 4	+/- 5	+/- 6	+/- 7	+/- 9	+/- 10
Straightness of Travel (µm) over Total Table Travel ²	+/- 2	+/- 2.5	+/- 3	+/- 3.5	+/- 4	+/- 5	+/- 6	+/- 7
Flatness of Travel (µm) over Total Table Travel ²	+/- 1	+/- 1.5	+/- 1.75	+/- 2	+/- 2.5	+/- 3.5	+/- 4.5	+/- 5
Max Speed (mm/s) ³	300						200	

¹ For In-Line / Frameless motor mounts ² Measured 50mm above center of carriage ³ 5 mm lead ballscrew ⁴ 0.1 µm linear encoder is limited to 300mm/s



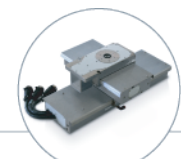
Linear Positioning



Rotary Positioning



Motion Controls

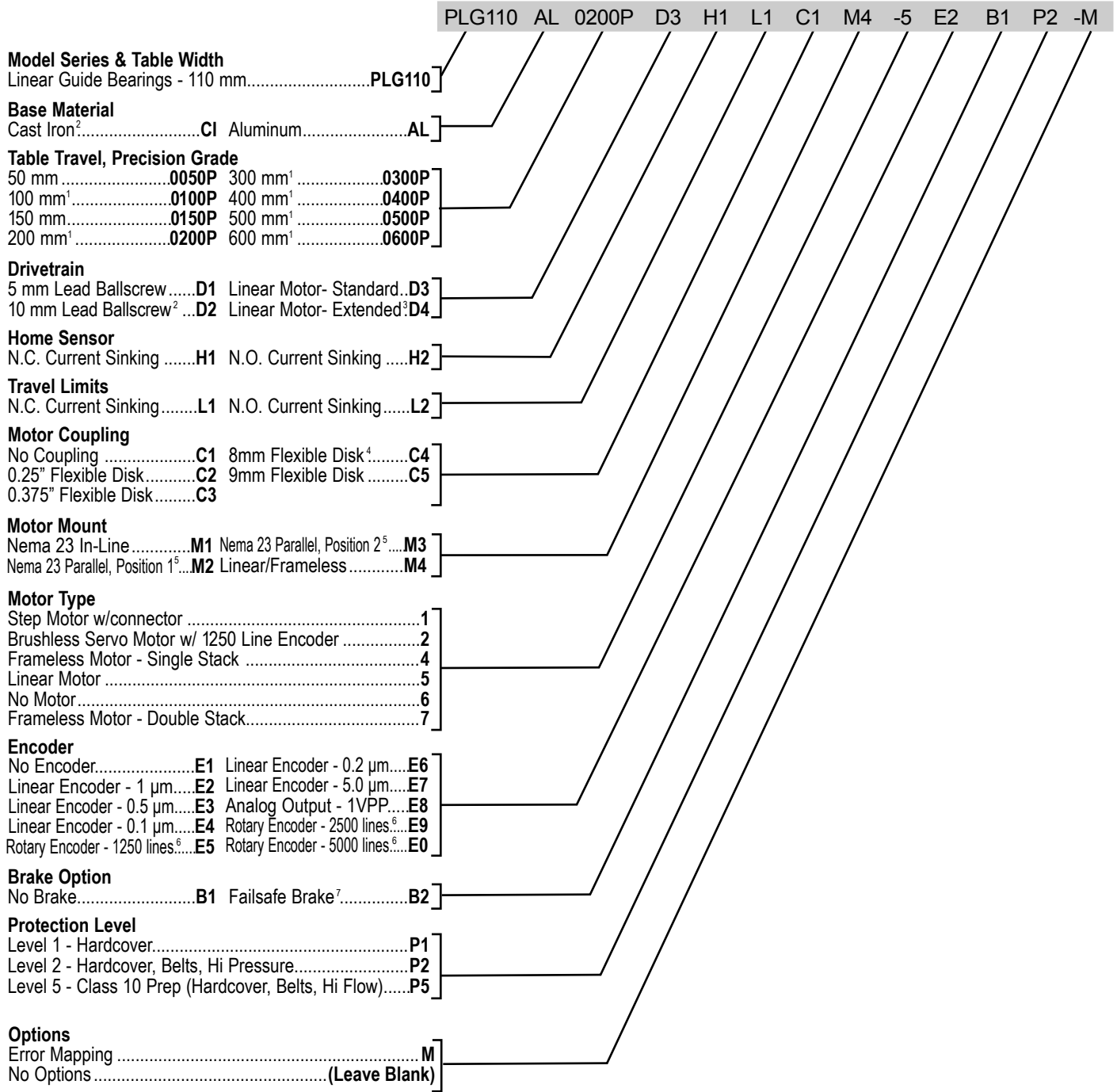


OEM Solutions

MODEL NUMBER CONFIGURATION

OPTIONS:

SAMPLE MODEL NUMBER:



¹Standard Linear Motor Travel ²Precision Rolled ³Reduces Travel by 40mm
⁴Standard on In-line/Parallel Stages ⁵Accuracy & Repeatability are Derated ⁶On Ballscrew Shaft ⁷ Ballscrew Only
 Not all configurations are valid. Consult factory for assistance.

