

PLG160 Series Linear Positioning Stages

PLG160

S E R I E S



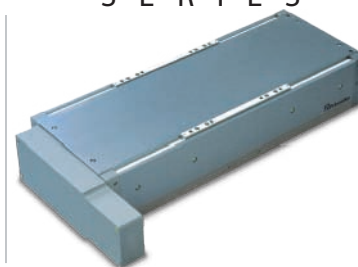
Linear Motor



Ballscrew with Frameless Motor



Ballscrew with In-Line Motor



Ballscrew with Parallel Motor

Feature Summary:

- Travels up to 800mm
- Loads up to 50 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

Overview

Primatics PLG160 Series positioning stages are the mid-size entries of the all-purpose PLG series stages. Ideal for demanding applications such as inspection, attachment and alignment, the PLG160 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.

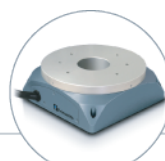
For more information and complete datasheets, go to www.primatics.com

Precision Grade Performance Specs	PLG160-50	PLG160-100	PLG160-150	PLG160-200	PLG160-300	PLG160-400	PLG160-500	PLG160-600	PLG160-800
Travel (mm)	50	100	150	200	300	400	500	600	800
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)	50								
Minimum Resolution w/ Linear Encoder (µm)	0.1								
PLG160 Linear Motor Only	-	PLG160-100	-	PLG160-200	PLG160-300	PLG160-400	PLG160-500	PLG160-600	PLG160-800
Positional Accuracy (µm) over Total Table Travel ³	-	+/- 3	-	+/- 5	+/- 6	+/- 7	+/- 9	+/- 10	+/- 13
Straightness of Travel (µm) over Total Table Travel ²	-	+/- 1.75	-	+/- 2.5	+/- 3.5	+/- 4.5	+/- 6	+/- 7	+/- 9
Flatness of Travel (µm) over Total Table Travel ²	-	+/- 1	-	+/- 1.5	+/- 2.5	+/- 3.5	+/- 4.5	+/- 5	+/- 7
Max Speed (mm/s) ⁴	1000								
PLG160 Ballscrew Motor Only	PLG160-50	PLG160-100	PLG160-150	PLG160-200	PLG160-300	PLG160-400	PLG160-500	PLG160-600	PLG160-800
Positional Accuracy w/Linear Encoder (µm) ²	+/- 2.5	+/- 3	+/- 4	+/- 5	+/- 6	+/- 7	+/- 9	+/- 10	+/- 13
Straightness of Travel (µm) over Total Table Travel ²	+/- 1.75	+/- 2.5	+/- 3	+/- 3	+/- 3.5	+/- 4.5	+/- 6	+/- 7	+/- 9
Flatness of Travel (µm) over Total Table Travel ²	+/- 1	+/- 1.25	+/- 1.5	+/- 1.75	+/- 2.5	+/- 3.5	+/- 4.5	+/- 5	+/- 7
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



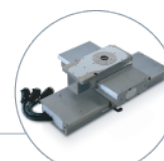
Linear Positioning



Rotary Positioning



Motion Controls

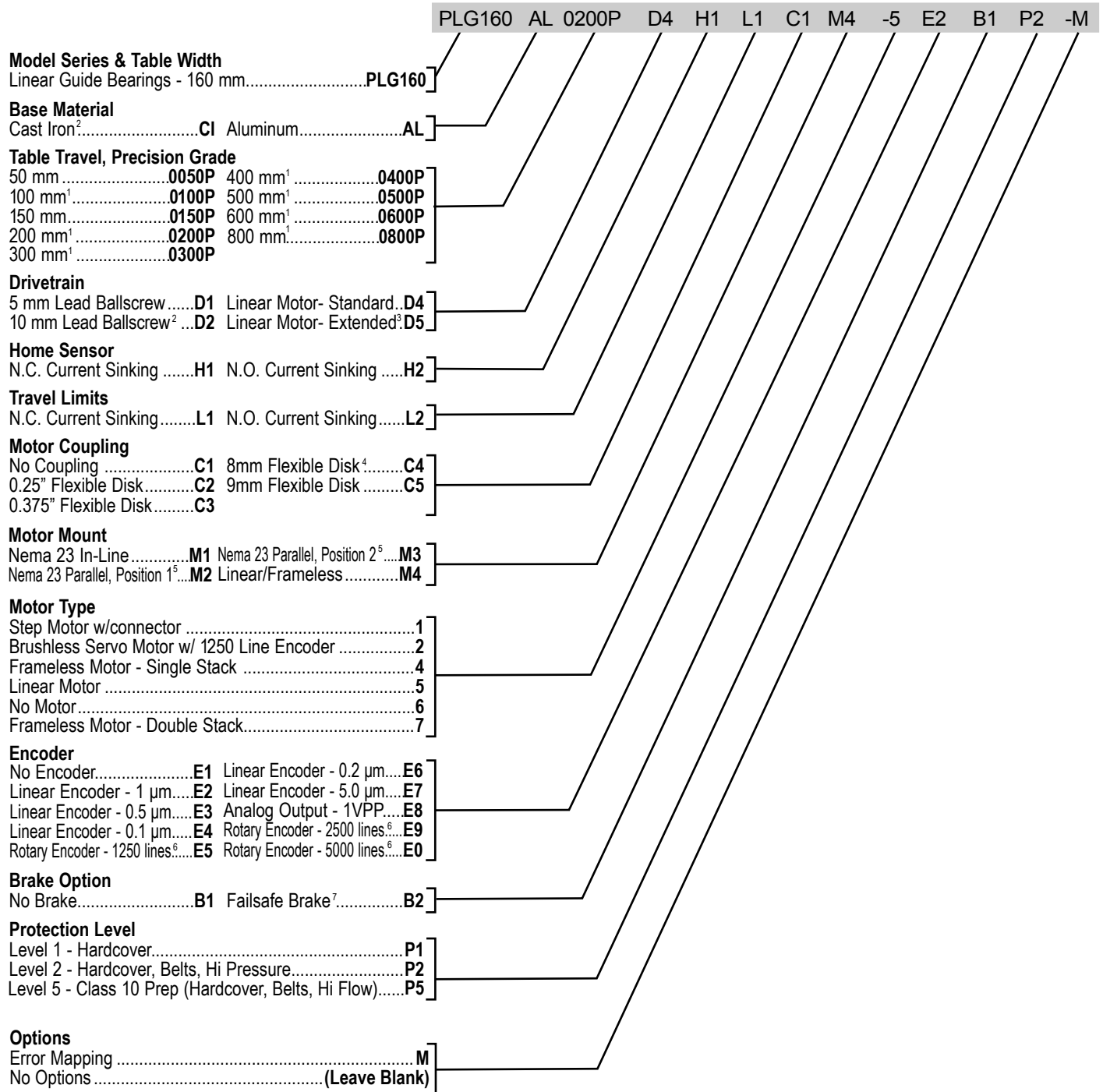


OEM Solutions

MODEL NUMBER CONFIGURATION

OPTIONS:

SAMPLE MODEL NUMBER:



¹ Standard Linear Motor Travel ² Allow Longer Delivery Time ³ Reduces Travel by 50mm
⁴ Standard on In-line/Parallel Stages ⁵ Accuracy & Repeatability are Derated ⁶ On Ballscrew Shaft ⁷ Ballscrew Only
***Not all configurations are valid. Consult factory for assistance.**

