Precision Positioning Stage | PPS-110LM

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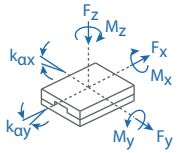
The PPS-110 is a high-precision, long travel linear stage. It is available with piezo motor, linear motor, or leadscrew drives. Stainless steel recirculating ball bearings allow for smooth motion and high guiding accuracy for loads up to 25 kg. Closed loop encoder resolution of 10 nm is achievable with a high precision digital encoder.

Load, max	F_x [N]	F_y [N]	F_z [N]	M_x [N·m]	M_y [N·m]	M_z [N·m]	$k_{\alpha x}$ [µrad/N·m]	$k_{\alpha y}$ [µrad/N·m]
LM-004	150 peak 50 continuous	150	250	60	30	35	50	50



KEY FEATURES

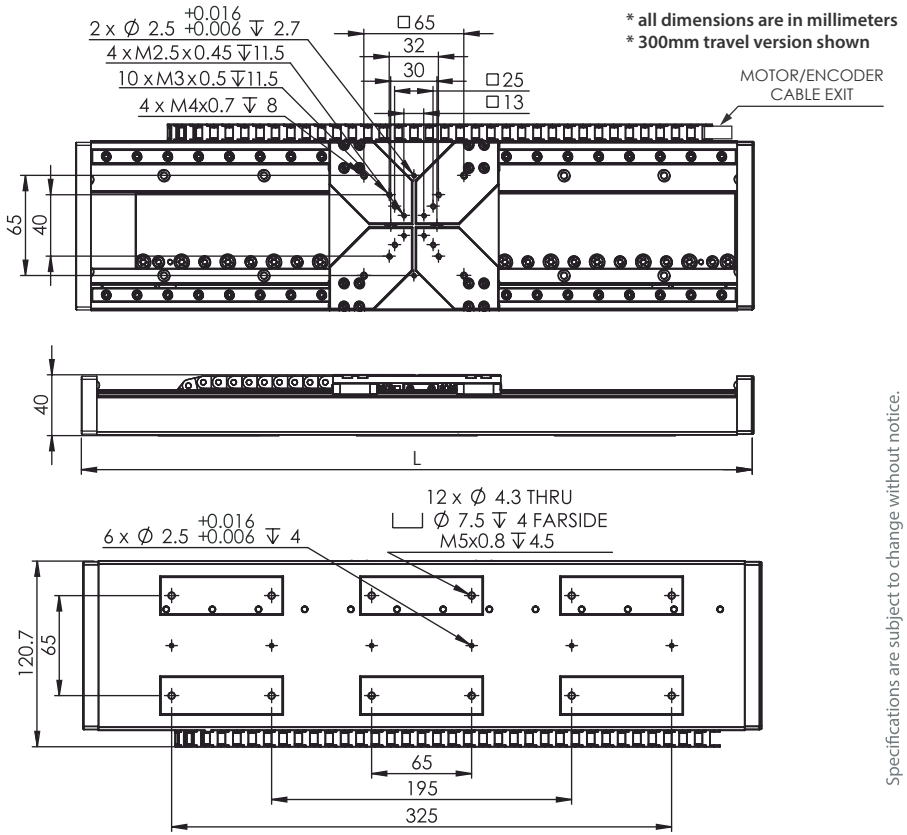
- Travel range up to 1000 mm
- Closed loop encoder resolution of 10 nm
- Load capacity up to 25 kg
- Recirculating stainless steel ball bearings
- Low profile, 40 mm height

TECHNICAL DATA

Travel range [mm]	100	200	300	500	1000
Straightness / Flatness [µm]	± 3	± 4	± 5	± 10	± 15
Pitch [µrad]	± 75	± 100	± 125	± 200	± 300
Yaw [µrad]	± 75	± 85	± 100	± 200	± 300
Weight [g]	2700	3500	4300	6200	11000
Motor option	**Linear Motor**				
Speed, max [mm/s]	250 (depending on load)				
Encoder option	**Digital (RS-422)**				
Resolution, typical [nm]	10				
Repeatability, bi-directional [nm]	± 100				
Repeatability, uni-directional [nm]	100				
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)				

Travel	L
100	240
200	340
300	440
500	640
1000	1140

*** all dimensions are in millimeters**
*** 300mm travel version shown**



ORDERING INFORMATION

PPS-110- 3 [ ] 3 1 0

DRIVE	Linear Motor (LM-004)	3
TRAVEL	100 mm	1
	200 mm	2
	300 mm	3
	500 mm	4
	1000 mm	5
ENCODER	Digital (RS-422)	3
LIMIT SWITCH	Magnetic	1
ENVIRONMENT	Atmospheric	0

Specifications are subject to change without notice.

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PRECISION MOTION SOLUTIONS