

Precision Positioning Stage | PPS-110PM NEW

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The PPS-110 is a high-precision, long travel linear stage. It is available with piezo motor, linear motor, or ballscrew drives. Stainless steel recirculating ball bearings allow for smooth motion, and high guiding accuracy for loads up to 25 kg. Closed loop resolution of 2 nm is achievable with a high precision digital encoder.

KEY FEATURES

- Travel range up to 1000 mm
- Closed loop resolution of 2 nm
- Load capacity up to 25 kg
- Recirculating Stainless Steel Ball Bearings
- Low profile, 40 mm height
- Vacuum versions available

TECHNICAL DATA

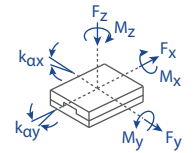
Travel range [mm]	100 mm	200 mm	300 mm	500 mm	1000 mm
Straightness / Flatness [μm]	± 3	± 4	± 5	± 10	± 15
Pitch [μrad]	± 75	± 100	± 125	± 200	± 300
Yaw [μrad]	± 75	± 85	± 100	± 200	± 300
Motor option	Piezo Motor				
Speed, max [mm/s]	5 (MMC-110)				
Encoder option	Open Loop		Digital (RS-422)		
Resolution, typical [μm]	0.001		0.002		
Repeatability, bi-directional [μm]	n/a		± 0.02		
Repeatability, uni-directional [μm]	n/a		0.02		
Accuracy [μm]	n/a		± 1		
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)				

ORDERING INFORMATION

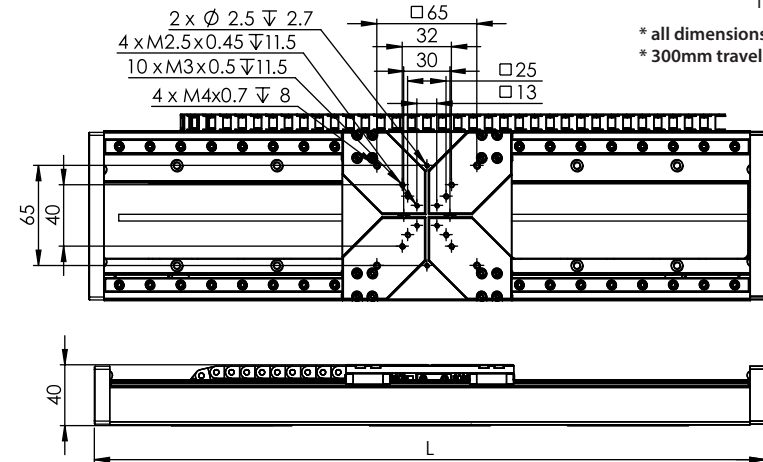
PPS-110- 1

DRIVE TRAVEL	Piezo Motor (PM-003)	1
	100 mm	1
	200 mm	2
	300 mm	3
	500 mm	4
ENCODER	None (Open Loop)	0
	Digital (RS-422)	3
	LIMIT SWITCH	None
LIMIT SWITCH	Mechanical	1
	Optical	2
	ENVIRONMENT	Atmospheric
High Vacuum, 10^{-6} mbar		6
Ultra High Vacuum, 10^{-9} mbar		9

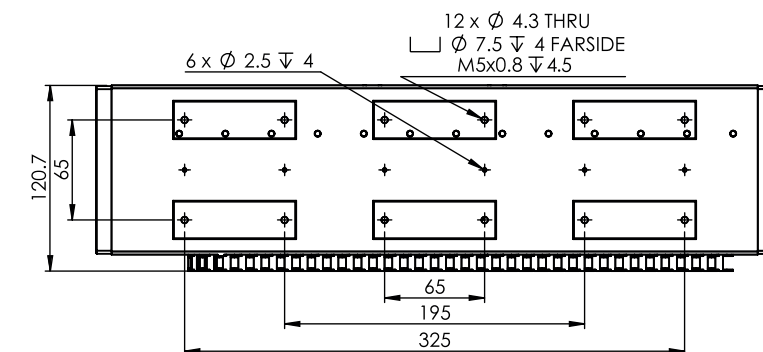
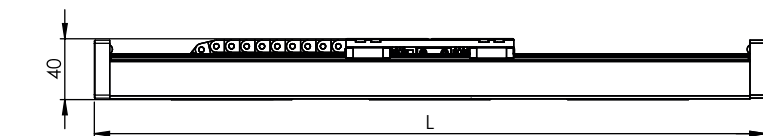
Load, max	F_x [N]	F_y [N]	F_z [N]	M_x [N-m]	M_y [N-m]	M_z [N-m]	k_{ax} [$\mu\text{rad/N-m}$]	k_{ay} [$\mu\text{rad/N-m}$]
PM-003	5	150	250	60	30	35	50	50



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



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



Specifications are subject to change without notice.