Precision Positioning Stage | PPS-28LM

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The PPS-28 Linear Motor version is suitable for applications requiring very fast speeds. Miniature crossed roller bearings assure high stiffness and guiding acccuracy for loads up to 50 N (horizontal orientation). Closed loop encoder resolution of 10 nm is achievable. The PPS-28LM is compatible with the MMC-300 controller.

Not recommended for new designs (use PPS-50 instead)

KEY FEATURES

- Travel range of 26, 51 and 102 mm (other travel lengths available upon request)
- 10 nm closed loop encoder resolution
- Load capacity up to 1 kg
- Crossed roller bearing
- Low profile, 15 mm height

TECHNICAL DATA

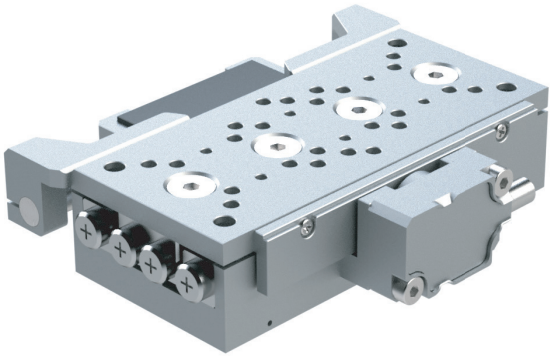
Travel range [mm]	**26**	**51**	**102**
Straightness / Flatness [µm]	± 2	± 2.5	± 3.5
Pitch [µrad]	± 60	± 70	± 100
Yaw [µrad]	± 70	± 75	± 100
Weight [g]	125	175	280
Motor option	**Linear Motor**		
Speed, max [mm/s]	100 (dependent on load)		
Encoder option	**Analog (1 V_{pp})**	**Digital (RS-422)**	
Resolution, typical [nm]	10	10	
Repeatability, bi-directional [nm]	± 50	± 100	
Repeatability, uni-directional [nm]	50	100	
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)		

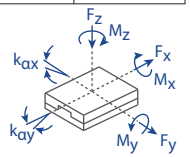
ORDERING INFORMATION

PPS-28- **3** [ ] [ ] [ ] [ ]

DRIVE	Linear Motor, LM-001	**3**
TRAVEL	26 mm	**1**
	51 mm	**3**
	102 mm	**5**
ENCODER	Analog (1 V_{pp})	**2**
	Digital (RS-422)	**3**
LIMIT SWITCH	None	**0**
	Magnetic	**1**
ENVIRONMENT	Atmospheric	**0**
	High Vacuum, 10^{-6} mbar	**6**

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} [µrad/N-m]***	***k_{ay} [µrad/N-m]***
LM-001	1 Peak	10	10	1	1	1	-	-





TRAVEL	A	B
26	60	50
51	90	50
102	150	80

* 26 mm travel, external encoder version shown
* all dimensions are in millimeters