

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 accuracy for loads up to 50 N (horizontal orientation). Closed loop resolution of 2 nm is achievable. The PPS-28LM is compatible with the MMC-300 controller.

KEY FEATURES

- Travel range of 26, 51 and 102 mm (other travel lengths available upon request)
- 2 nm closed loop resolution
- Load capacity up to 5 kg
- Steel crossed roller bearing
- Low profile, 15 mm height

TECHNICAL DATA

Travel range [mm]	26	51	100
Straightness / Flatness [μm]	± 2	± 2.5	± 3.5
Pitch [μrad]	± 60	± 70	± 100
Yaw [μrad]	± 70	± 75	± 100
Weight [g]	-	-	-
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	2	
Repeatability, bi-directional [nm]	± 50	± 20	
Repeatability, uni-directional [nm]	50	20	
Accuracy [μm]	± 1	± 1	
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)		

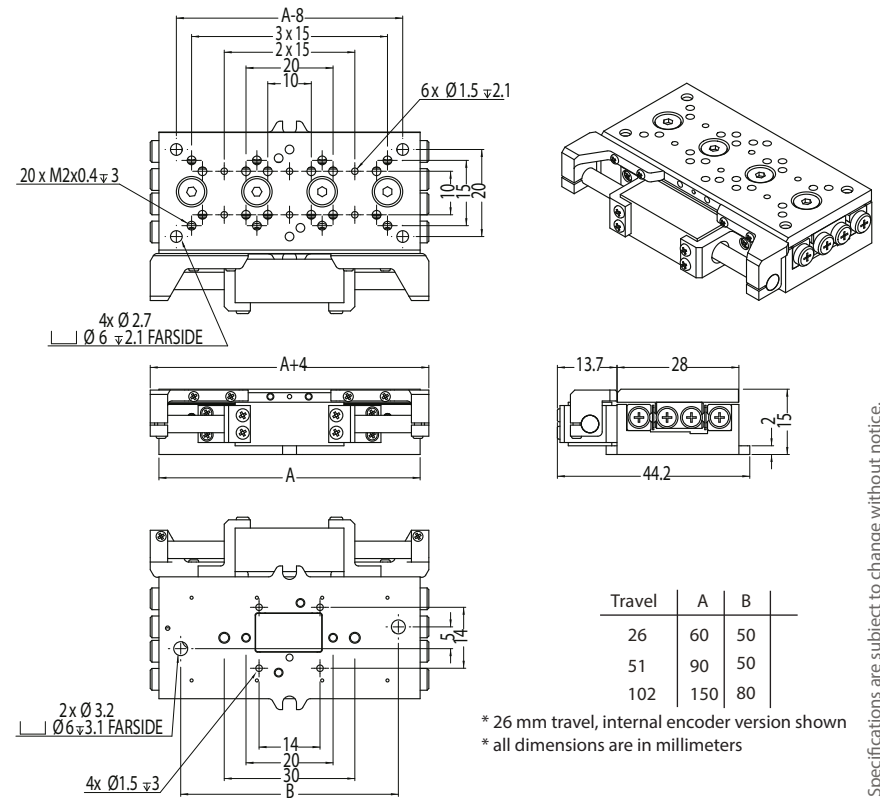
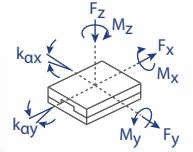
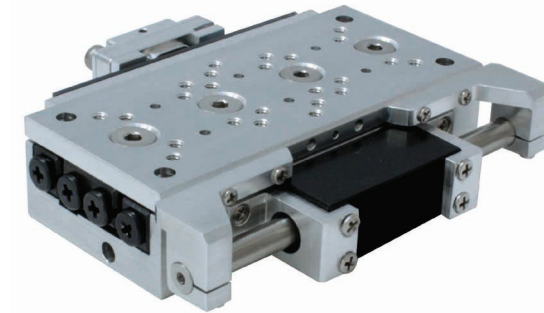
ORDERING INFORMATION

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
	Optical [†]	2
ENVIRONMENT	Atmospheric	0

[†] only available with Digital Encoder option

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} [$\mu\text{rad}/\text{N}\cdot\text{m}$]	k _{ay} [$\mu\text{rad}/\text{N}\cdot\text{m}$]
LM-001	1	50	50	1	1	1	-	-



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

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

Specifications are subject to change without notice.