

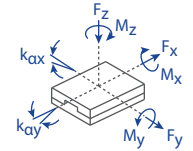
Precision Positioning Stage | PPS-50LM

The linear stage PPS-50 allows nanopositioning with high speeds. Anti-creep, crossed roller bearings assure high stiffness for loads up to 20N. The PPS-50 is fully integrated with high resolution absolute encoder (up to 25nm resolution) and can be combined with our rotary and gonio stages for ultimate motion flexibility. The PPS-50 is compatible with Nanodrive controller.

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} [μ rad/N-m]	k_{ay} [μ rad/N-m]
LM-006	2 Continuous 5 Peak	20	20	0.2	0.2	0.125	-	-

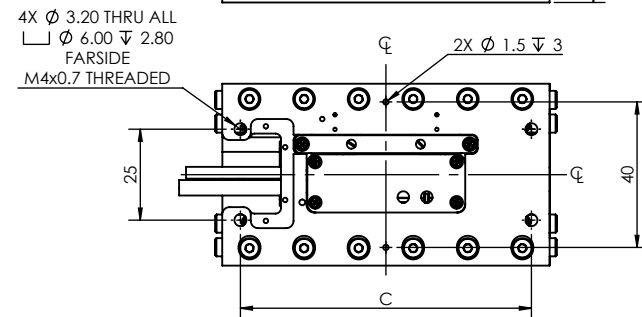
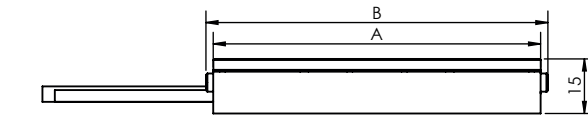
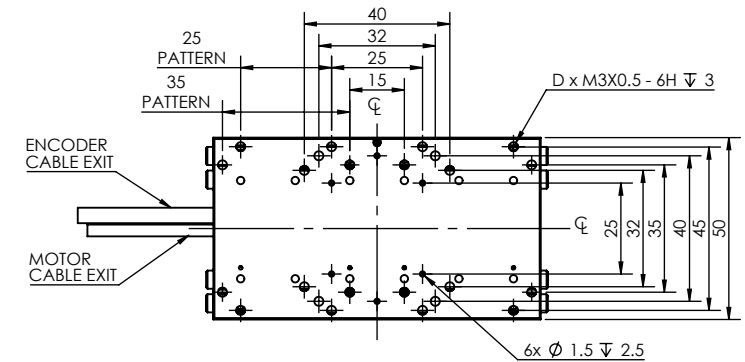
KEY FEATURES

- Standard travel range of up to 100 mm
- Internal absolute encoder resolution to 25nm
- Load capacity up to 2kg (higher on request)
- Crossed roller bearing (anti-creep)
- Low profile, 15mm height



TECHNICAL DATA

Travel range [mm]	26	50	75	100
Straightness / Flatness [μm]	± 2	± 3	± 4	± 5
Pitch [μrad]				
Yaw [μrad]				
Weight [g], Closed Loop	140	220	280	345
Motor option	Linear Motor			
Speed, max [mm/s]	300 (NanoDrive)			
Encoder option	Absolute (BiSS C)			
Resolution, typical [nm]	25			
Repeatability, bi-directional [nm]	± 200			
Repeatability, uni-directional [nm]	200			
Materials	aluminum, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)			



TRAVEL	A	B	C	D
26	50	50	45	16
50	90	94	80	24
75	120	124	60	24
100	150	154	80	48

- all dimensions are in millimeters
- 50 mm travel shown

ORDERING INFORMATION

PPS-50- 3 5

DRIVE	Linear Motor, LM-006	3			
TRAVEL	26 mm	1			
	50 mm	2			
	75 mm	3			
	100 mm	4			
ENCODER	Absolute (BiSS C)		5		
LIMIT SWITCH	Magnetic			1	
ENVIRONMENT	Atmospheric				0
	High Vacuum (10 ⁻⁶ mbar)				6

Specifications are subject to change without notice.