

Precision Positioning Stage | PPS-50LM NEW

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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 12.5nm resolution) and can be combined with our rotary and gonio stages for ultimate motion flexibility. The PPS-50 is compatible with Nanodrive controller.

KEY FEATURES

- Standard travel range of up to 100 mm
- Closed loop absolute encoder resolution to 12.5nm
- Load capacity up to 2kg (higher on request)
- Crossed roller bearing (anti-creep)
- Low profile, 15mm height

TECHNICAL DATA

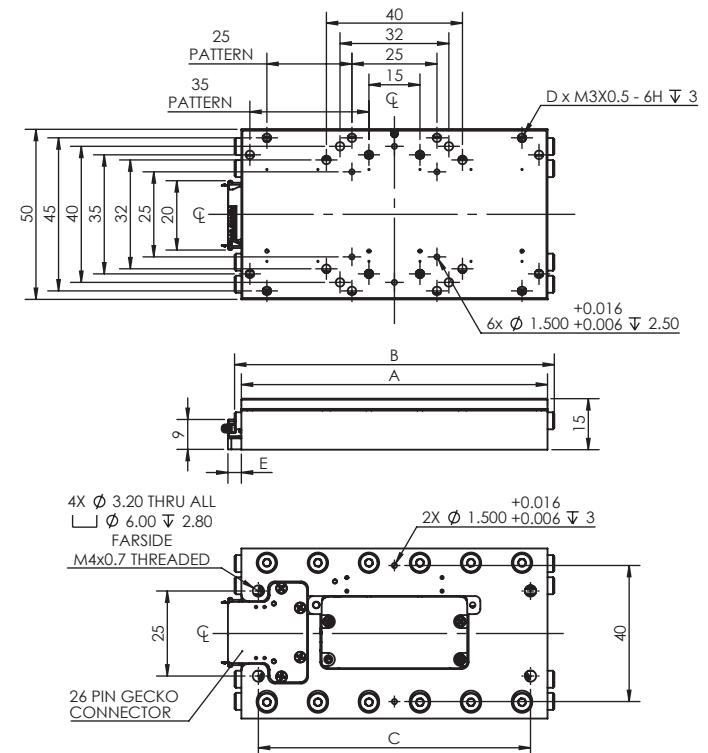
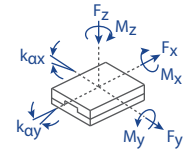
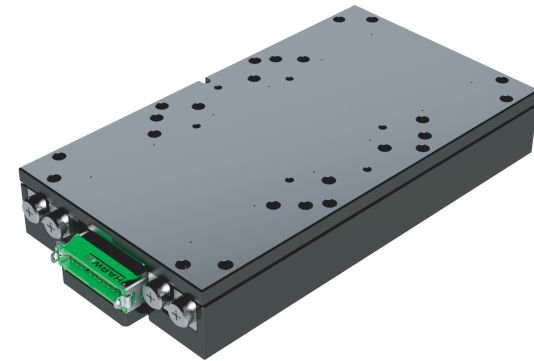
Travel range [mm]	26	50	75	100
Straightness / Flatness [μm]	± 2	± 3	± 4	± 5
Pitch [μrad]				
Yaw [μrad]				
Weight [g], Open Loop	210	350	450	540
Weight [g], Closed Loop	220	360	460	550
Motor option	Linear Motor			
Speed, max [mm/s]	>300 (NanoDrive)			
Encoder option	Absolute (BiSS C)			
Resolution, typical [nm]	12.5			
Repeatability, bi-directional [nm]	± 50			
Repeatability, uni-directional [nm]	50			
Materials	aluminum, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)			

ORDERING INFORMATION

PPS-50-3 5 0 0 - E

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	None	0
ENVIRONMENT	Atmospheric	0
CONTROLLER	External.....	E

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} [$\mu\text{rad/N-m}$]
LM-006	5 (peak)	20	20	0.2	0.2	0.125	-	-



TRAVEL	A	B	C	D	E
26	50	50	45	16	12.5
50	90	94	80	24	4.2
75	120	124	60	24	2.5
100	150	154	80	48	2.5

- all dimensions are in millimeters
- 50 mm travel, integrated controller version shown

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PRECISION MOTION SOLUTIONS

Specifications are subject to change without notice.