

Piezo Positioner | PP-18

The PP-18 is a low cost linear piezo stage with miniature crossed roller bearings, which assure high stiffness. It utilizes our patented multi-phase motor resulting in high speed (>2mm/s) and high blocking force (> 1.5N). An integrated encoder provides excellent repeatability. The PP-18 is compatible with the MMC-100, MMC-110 and NanoDrive controllers.

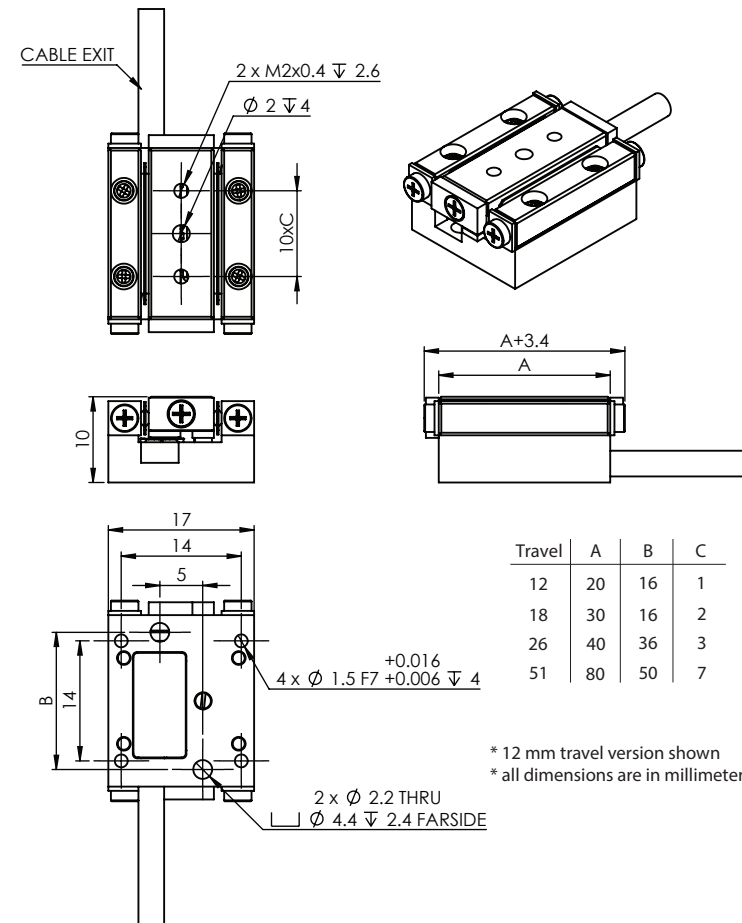
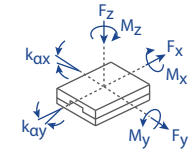
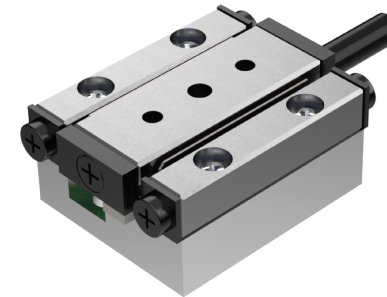
KEY FEATURES

- Travel range of up to 51 mm
- 40 nm closed loop encoder resolution standard
- Load capacity up to 0.5 kg (horizontal orientation)
- Crossed roller bearing
- Low profile, 10 mm height, 17 mm wide

TECHNICAL DATA

Travel range [mm]	12	18	26	51
Straightness / Flatness [μm]	± 5	± 10	± 15	± 20
Pitch [μrad]	± 100	± 200	± 300	± 400
Yaw [μrad]	± 100	± 200	± 300	± 400
Weight [g], Closed Loop	15	20	28	60
Motor option	Piezo Motor			
Speed, max [mm/s]	2			
Encoder option	None (open loop)		Digital (RS-422)	
Resolution, typical [nm]	1		< 40	
Repeatability, bi-directional [nm]	n/a		± 200	
Repeatability, uni-directional [nm]	n/a		200	
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)			

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-002	1.5	5	5	0.1	0.1	0.1	-	-



Travel	A	B	C
12	20	16	1
18	30	16	2
26	40	36	3
51	80	50	7

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

ORDERING INFORMATION

PP-18- 1 0 0

DRIVE	Piezo Motor, PM-002	1
TRAVEL	12 mm	1
	18 mm	2
	26 mm	3
	51 mm	5
ENCODER	None	0
	Digital (RS-422)	3
LIMIT SWITCH ENVIRONMENT	None	0
	Atmospheric	0

Specifications are subject to change without notice.