Piezo Positioner | PP-18

www.micronixusa.com | info@micronixusa.com | phone: +1 (949) 480 0538 | fax: +1 (949) 480 0538

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.

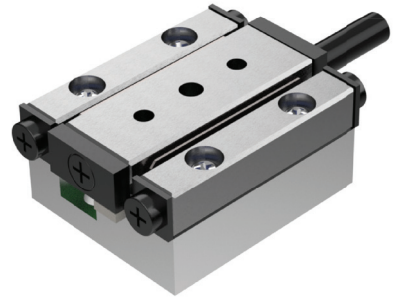
KEY FEATURES

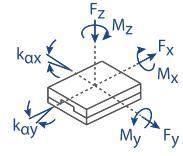
- Travel range of up to 51 mm
- 40 nm closed loop encoder resolution standard
- Load capacity up to 0.5 kg (horizontal orientation)
- Crossed roller bearing
- Low profile, 10 mm height, 17 mm wide

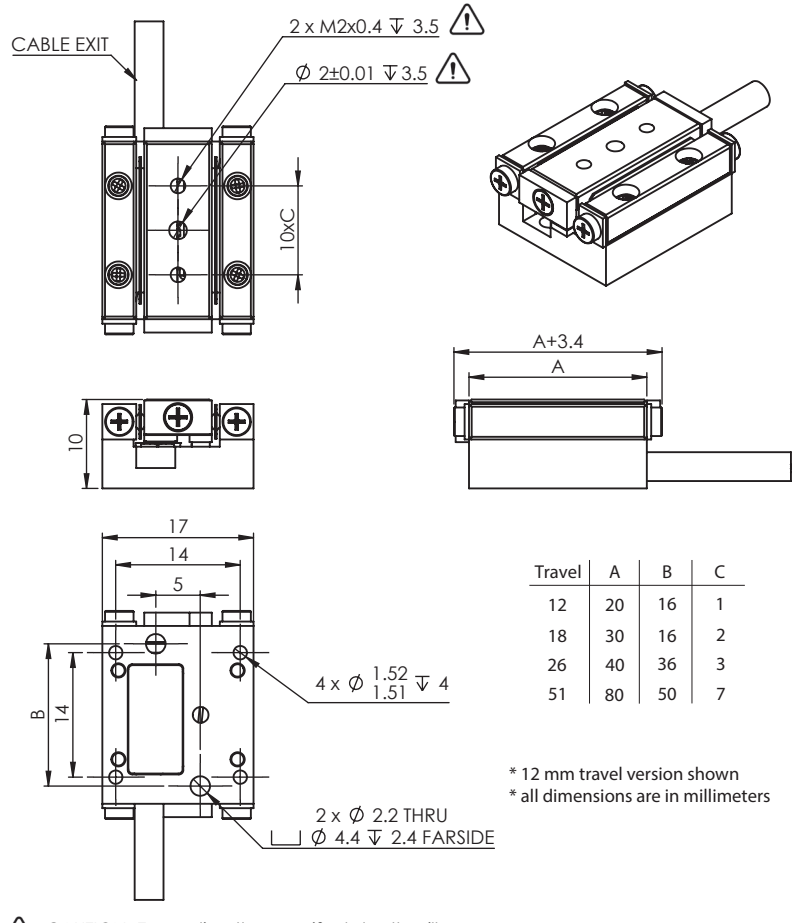
TECHNICAL DATA

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} [µrad/N·m]	k_{ay} [µrad/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	None	**0**
ENVIRONMENT	Atmospheric	**0**

⚠ CAUTION: Exceeding the specified depth will result in damage to the PP-18's internal components.

micronix USA PRECISION MOTION SOLUTIONS