

# Piezo Positioner | PP-18

The PP-18 is a low cost linear piezo stage. Miniature crossed roller bearings assure high stiffness. It utilizes our patent-pending multi-phase motor resulting in high speed (>2mm/s) and high blocking force (> 1.5N).

## KEY FEATURES

- Travel range of up to 51 mm
- 40 nm closed loop encoder resolution standard
- Load capacity up to 0.5 kg
- Crossed roller bearing
- Low profile, 10 mm height, 17 mm wide
- Uses MMC-10 low cost controller

## TECHNICAL DATA

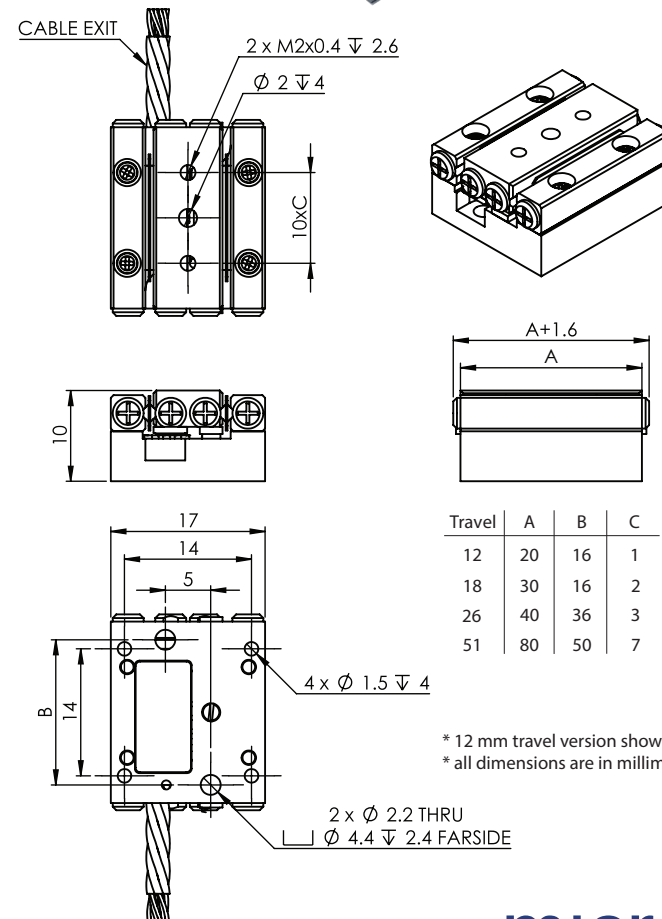
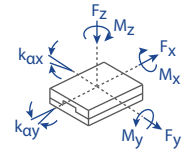
Travel range [mm]	12	18	26	51
Straightness / Flatness [ $\mu\text{m}$ ]	$\pm 5$	$\pm 10$	$\pm 15$	$\pm 20$
Pitch [ $\mu\text{rad}$ ]	$\pm 100$	$\pm 200$	$\pm 300$	$\pm 400$
Yaw [ $\mu\text{rad}$ ]	$\pm 100$	$\pm 200$	$\pm 300$	$\pm 400$
Weight [g], Closed Loop	15	20	28	60
<b>Motor option</b>	<b>Piezo Motor</b>			
Speed, max [mm/s]	2			
<b>Encoder option</b>	<b>Digital (RS-422)</b>			
Resolution, typical [nm]	40			
Repeatability, bi-directional [nm]	$\pm 200$			
Repeatability, uni-directional [nm]	200			
<b>Materials</b>	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)			

## ORDERING INFORMATION

PP-18- **1** **3** **0** **0**

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

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	-	-



Specifications are subject to change without notice.