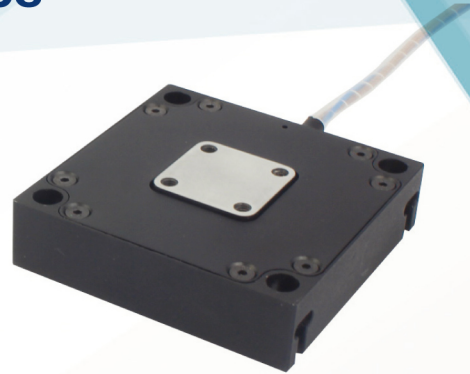




Piezo Nanopositioning Stages P66.X/P66.XY/P66.XZ/P66.XYZ

Features

- Motions in X, Z, XY, XZ and XYZ are available
- Max stroke: 34μm
- Max load 5kg
- Open/closed loop



1-3 axes

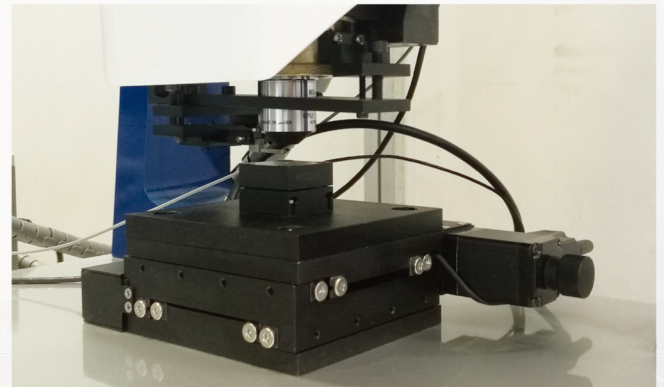
P66.X linear stages described here are part of the P66 family of positioners available in 1~3 axes.

Closed-Loop and Open-Loop Versions

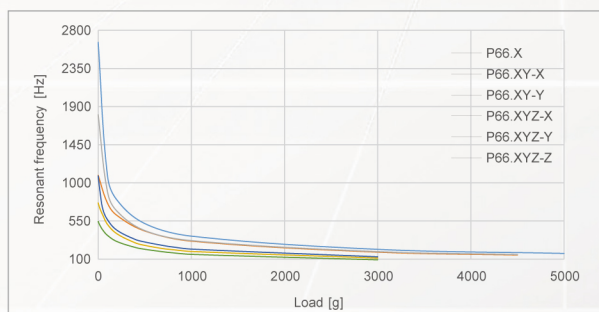
P66 have two specifications of open loop and closed loop, and the closed-loop version has a high-resolution and fast-response strain gauge sensor (SGS), which is equipped in the most appropriate location of the drive mechanism. It can feedback to the controller with signals of high-bandwidth, nanopositioning accuracy. The sensor uses a full-bridge configuration to eliminate thermal drift and ensure the stability of optical positioning in the nano-meter range.

Scanning Probe Microscope(SPM)

Coremorrow P66.XY piezo nanopositioning stage is widely used in SPM because of the features of high response frequency, high precision, and high reliability etc.



Frequency vs Loading



Recommend Controllers

E00/E01	E72	E53
1~3 channels Computer software, Analog input, Rotary knob Open/closed loop Ave. power: 35W/7W	1~3 channels Computer software, Analog input Open/closed loop Ave. power: 6W	1 channel Computer software, Analog input Open/closed loop Ave. power: 10W

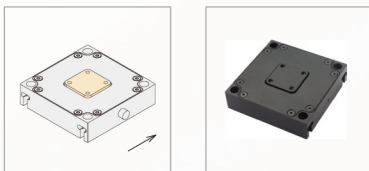
Technical data

Models	End with S: Closed-loop End with K: Open-loop	P66.X30S P66.X30K	P66.XY30S P66.XY30K	P66.XYZ30S P66.XYZ30K	Units
Active axes		X	X, Y	X, Y, Z	
Nominal travel range(0~120V)		24	24/axis	24/axis	$\mu\text{m}\pm 20\%$
Max travel range(-20~150V)		34	34/axis	34/axis	$\mu\text{m}\pm 20\%$
Integrated sensor		SGS/-	SGS/-	SGS/-	
Closed/open loop resolution		1.5/0.7	1.5/0.7	1.5/0.7	nm
Closed-loop linearity		0.05/-	0.05/-	0.1/-	%F.S.
Repeatability		0.05/-	0.05/-	0.05/-	%F.S.
Pitch/Yaw/Roll		<15	<15	<15	μrad
Push/pull force capacity		150/15	120/15	80/15	N
Stiffness in motion direction		5	X4/Y4.2	X2.8/Y3/Z3.2	N/ $\mu\text{m}\pm 20\%$
Unloaded resonant frequency		2.6	X1.1/Y1.8	X1.2/Y0.8/Z0.5	kHz $\pm 20\%$
Closed/open-loop unloaded Step time		5/0.8	5/0.8	10/0.8	ms $\pm 20\%$
Closed-loop Unloaded operating frequency	10% Travel	500	260	150	Hz $\pm 20\%$
	100% Travel	50	25	15	
Load capacity		5	4.5	3.5	kg
Electrical capacitance		3.6	3.6/axis	3.6/axis	$\mu\text{F}\pm 20\%$
Material		Aluminum	Aluminum	Aluminum	
Mass		120	260	500	g $\pm 5\%$

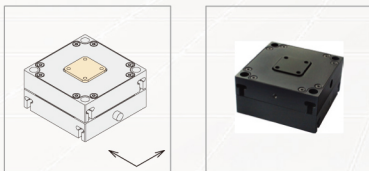
The technical data are measured by Coremorrow E00 series piezo controller.

Drawings

P66.X



P66.XY



P66.XYZ

