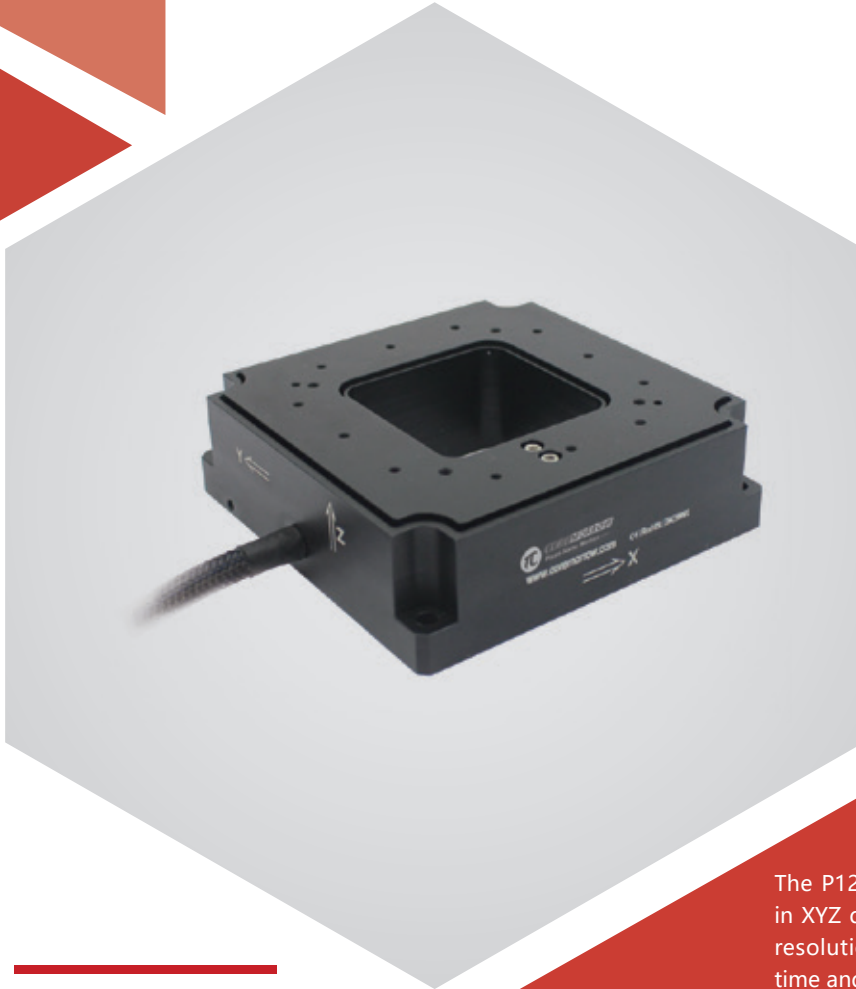


# XYZ axis | P12A.XY200Z100S/K

## Piezo Nanopositioning Scanner



### Characteristics >>

- Motion in XYZ
- Travel to X250/Y250/Z100 $\mu$ m
- Closed-loop version for higher accuracy
- Aperture of 45 $\times$ 45mm
- Optional vacuum version

### Applications >>

- Scanning microscopy
- Confocal microscopy
- Surface measurement
- Semiconductor test
- Image process and stability
- Micromanipulation

## Introduction

The P12A.XY200Z100S/K piezo scanning stage moves in XYZ direction, and optionally equipped with a high-resolution sensor, which detects the position in real time and feeds it back to the piezo controller.

P12A piezo scan stage, matched with CoreMorrow E70 modular controller, is applied to optical microscopy imaging to realize XYZ axis precision scanning.



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## Technical Data >>

Type	S-Closed loop K-Open loop	P12A. XY200Z100S	P12A. XY200Z100K	Units
Active axes		X, Y, Z	X, Y, Z	
Travel range(0~120V)		XY200/Z80	XY200/Z80	$\mu\text{m} \pm 10\%$
Travel range(0~150V)		XY250/Z100	XY250/Z100	$\mu\text{m} \pm 10\%$
Sensor		SGS	-	
Resolution		XY7/Z3	XY3/Z1	nm
Linearity		XY0.1/Z0.2	-	%F.S.
Repeatability		XY0.05/Z0.1	-	%F.S.
Unloaded resonant frequency		XY240/Z150	XY240/Z150	Hz $\pm 20\%$
Load capacity		500	500	g $\pm 5\%$
El. capacitance		XY7.2/Z1.8	XY7.2/Z1.8	$\mu\text{F} \pm 20\%$
Operating temperature <sup>[1]</sup>		-20~80	-20~80	°C
Material		Steel, Al	Steel, Al	
Size (L×W×H)		80×80×30	80×80×30	mm
Mass		-	-	g $\pm 5\%$
Cable length <sup>[2]</sup>		1.5	1.5	m $\pm 10\text{mm}$
Sensor/voltage connector <sup>[2]</sup>		-	-	

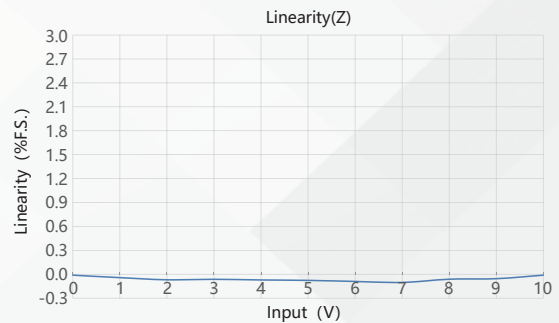
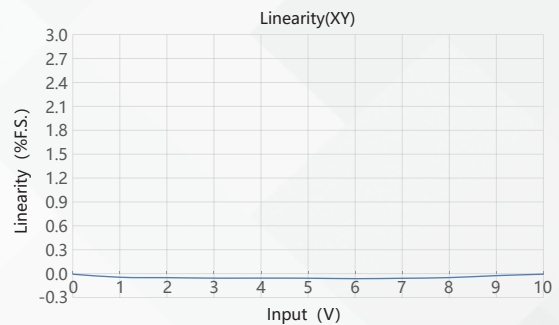
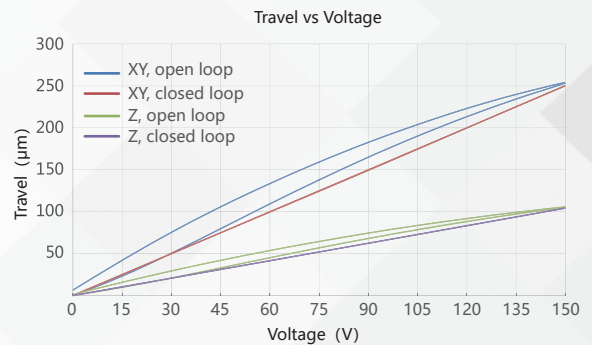
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[2] Custom cable length and connector is available.

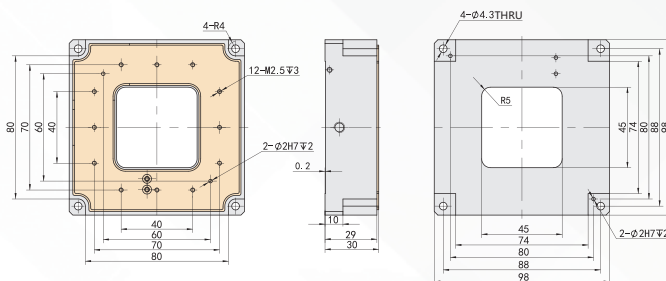
Note: The parallelism of the moving platform is about 20 $\mu\text{m}$ , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## Curves >>



Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

## Drawing >>



## Recommended Controllers >>



**E01.D3**  
LCD, membrane button, up to 625mA  
RS-232/RS-422/USB interface  
Software secondary development



**E70**  
Small size, 70mA  
RS-232/RS-422/USB interface  
Software secondary development



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