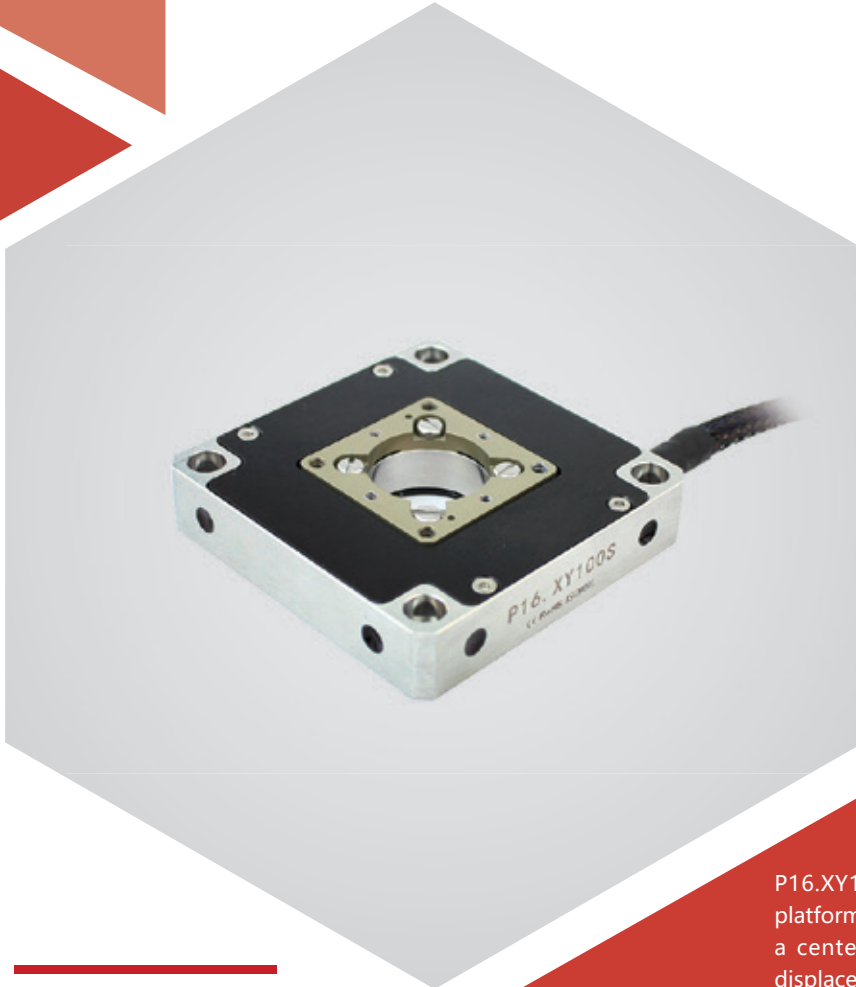


# XY axis | P16.XY100S/K

## Piezo Nanopositioning Scanner



### Characteristics >>

- Motion in XY
- Travel to  $\pm 40\mu\text{m}$ /axis
- Load capacity to 1.5kg
- Aperture of  $\varnothing 60\text{mm}$
- Closed-loop version for high accuracy

### Applications >>

- Microscopic imaging
- Surface inspection
- Image stability
- Photoelectric aiming pod
- Interference/metering
- Precision positioning

## Introduction

P16.XY100 piezo scanner is an XY motion scanning platform, adopting amplification mechanism. It features a center aperture diameter of 100mm and  $\pm 40\mu\text{m}$  displacement in X and Y axes.

The product is very compact and easy to integrate.



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## Technical Data >>

Type	S-Closed loop K-Open loop	P16.XY100S	P16.XY100K	Units
Active axes		X, Y	X, Y	
Driving channels		3	3	
Travel range (0~100V)		±33/axis	±33/axis	μm±10%
Travel range (0~120V)		±40/axis	±40/axis	μm±10%
Sensor		SGS	-	
Aperture size		Ø20	Ø20	mm
Resolution		2.5	1	nm
Linearity		1	-	%F.S.
Repeatability		0.5	-	%F.S.
Pitch/yaw/roll		<25	<25	μrad
Push/pull force		30/30	30/30	N
Stiffness in motion direction		X0.5/Y0.5	X0.5/Y0.5	N/μm±20%
Unloaded resonant frequency		600	600	Hz±20%
Unloaded step time		10	1.6	ms±20%
Load capacity		1.5	1.5	kg
El. capacitance		3.6/axis	3.6/axis	μF±20%
Operating temperature <sup>[1]</sup>		-20~80	-20~80	°C
Material		Steel, Al	Steel, Al	
Size (L×W×H)		60×60×13	60×60×13	mm
Mass		220	220	g±5%
Cable length <sup>[2]</sup>		1.5	1.5	m±10mm
Sensor/voltage connector <sup>[2]</sup>		-	-	

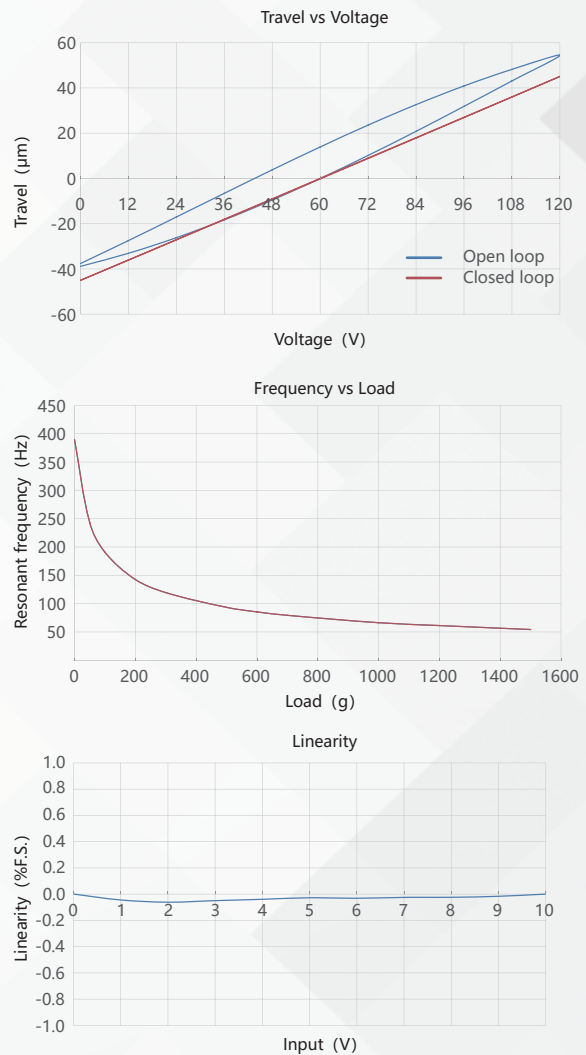
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

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

[2] Custom cable length and connector is available.

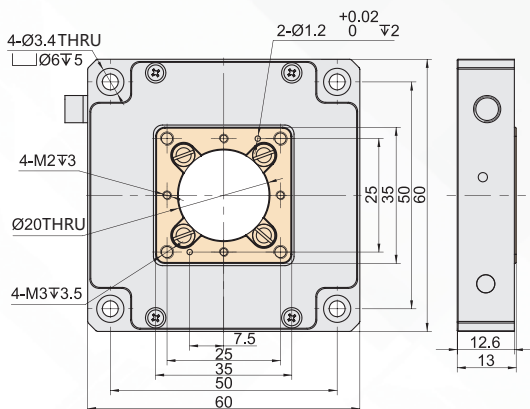
Note: The parallelism of the moving platform is about 20μm, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## 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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