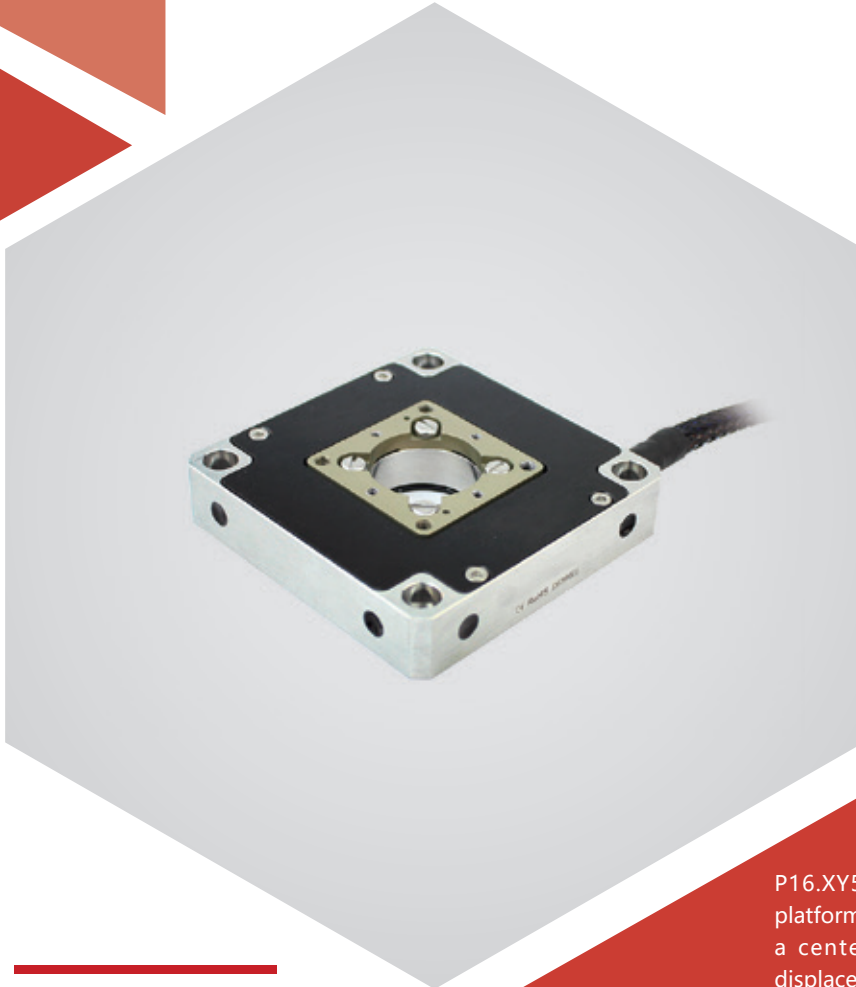


XY axis | P16.XY50S/K

Piezo Nanopositioning Scanner



Characteristics >>

- Motion in XY
- Travel to 50 μ m/axis
- Load capacity to 1.5kg
- Aperture of $\varnothing$ 20mm
- Closed-loop version for high accuracy

Applications >>

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

Introduction

P16.XY50 piezo scanner is an XY motion scanning platform, adopting amplification mechanism. It features a center aperture diameter of 20mm and 50 μ 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.XY50S	P16.XY50K	Units
Active axes		X, Y	X, Y	
Driving channels		2	2	
Travel range(0~120V)		40/axis	40/axis	$\mu\text{m} \pm 10\%$
Travel range(0~150V)		50/axis	50/axis	$\mu\text{m} \pm 10\%$
Sensor		SGS	-	
Aperture size		$\varnothing 20$	$\varnothing 20$	mm
Resolution		1.5	0.5	nm
Linearity		1	-	%F.S.
Repeatability		1	-	%F.S.
Pitch/yaw/roll		<20	<20	μrad
Push/pull force		30/10	30/10	N
Stiffness in motion direction		0.5	0.5	$\text{N}/\mu\text{m} \pm 20\%$
Unloaded resonant frequency		500	500	$\text{Hz} \pm 20\%$
Unloaded step time		10	0.8	$\text{ms} \pm 20\%$
Load capacity		1.5	1.5	kg
El. capacitance		1.8/axis	1.8/axis	$\mu\text{F} \pm 20\%$
Operating temperature ^[1]		-20~80	-20~80	$^{\circ}\text{C}$
Material		Steel, Al	Steel, Al	
Size (L×W×H)		60×60×13	60×60×13	mm
Mass		200	200	$\text{g} \pm 5\%$
Cable length ^[2]		1.5	1.5	$\text{m} \pm 10\text{mm}$
Sensor/voltage connector ^[2]		-	-	

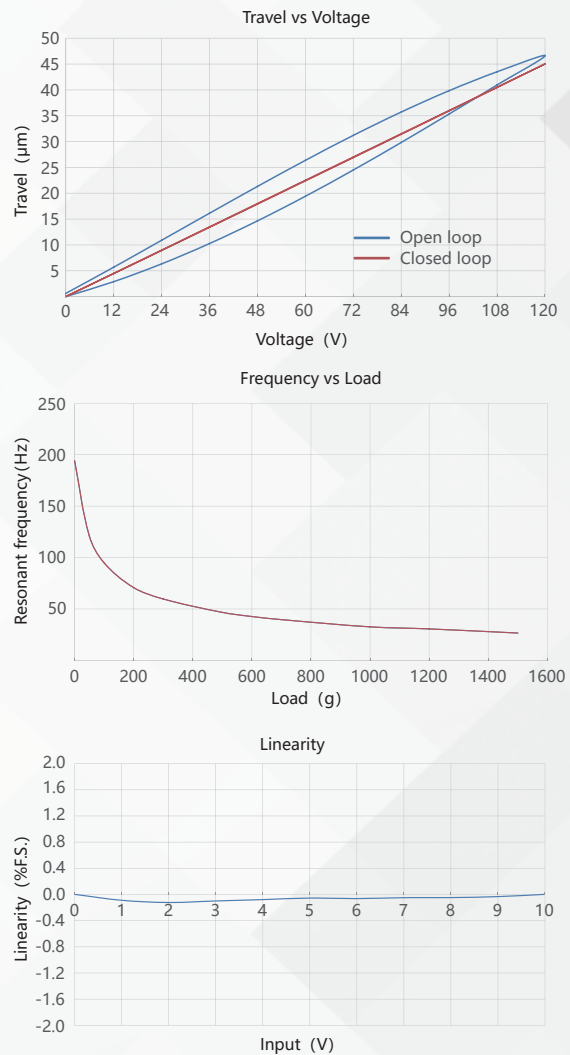
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

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

[2] Custom cable length and connector is available.

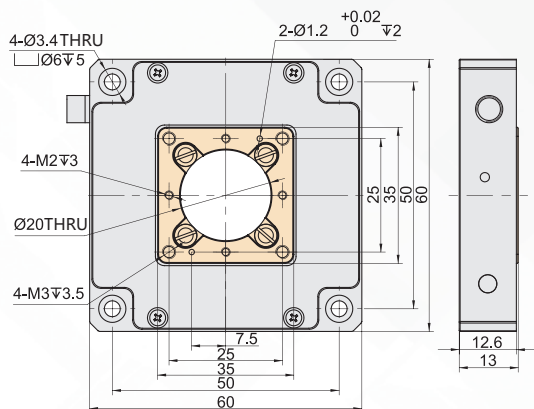
Note: The parallelism of the moving platform is about 20 μm , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

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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