

# XY axes | P17.XY15K

## Piezo Nanopositioning Stages



### Characteristics >>

- Sub-nm resolution
- Travel to 15 $\mu$ m
- Load capacity up to 0.2kg
- Aperture size: 25 $\times$ 27.5mm
- Available UHV version

### Applications >>

- Microscopic imaging
- Interference/metering
- Infrared thermal imaging
- Surface inspection
- Precision positioning
- Semiconductor testing

## Introduction

P17.XY15 piezoelectric scanning stage is an XY-axis translation scanning platform. The center has a aperture size of 25 $\times$ 27.5mm. The product is small in size and stable in performance. P17.XY15 scanning platform is an open-loop version and has excellent dynamics, suitable for dynamic scanning applications.



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## Technical Data >>

Type	K-Open loop	P17.XY15K	Units
Active axes		X, Y	
Travel rang(0~120V)		12/axis	$\mu\text{m}\pm 10\%$
Travel rang(0~150V)		15/axis	$\mu\text{m}\pm 10\%$
Sensor		SGS	
Aperture		25×27.5	mm
Resolution		0.2	nm
Pitch/yaw/roll		< 5	$\mu\text{rad}$
Push/pull force		30/3	N
Unloaded resonant frequency, X/Y/Z		X1000/Y1000	Hz $\pm 20\%$
Stiffness		X3/Y3	N/ $\mu\text{m}\pm 20\%$
Closed/open-loop unloaded step time		1.5	ms $\pm 20\%$
Load capacity		0.2	kg
El. capacitance		0.7/axis	$\mu\text{F}\pm 20\%$
Operating temperature <sup>[1]</sup>		-20~80	$^{\circ}\text{C}$
Material		Aluminum	
Size(L×W×H)		52×54×10	mm
Mass		55	g $\pm 5\%$
Cable length <sup>[2]</sup>		1.5	m $\pm 10\text{mm}$
Connector <sup>[2]</sup>		-	

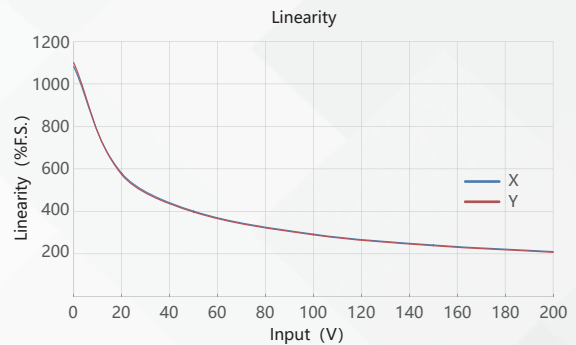
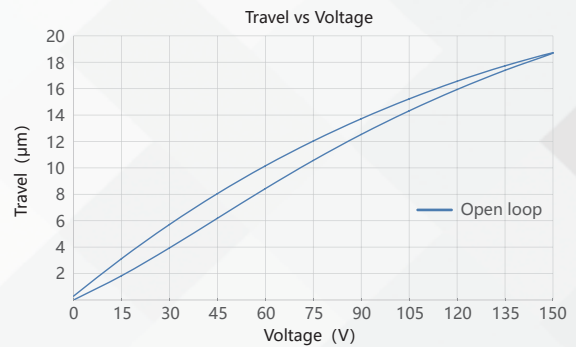
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25 $^{\circ}\text{C}$ .

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

[2] Custom cable length and connector is available.

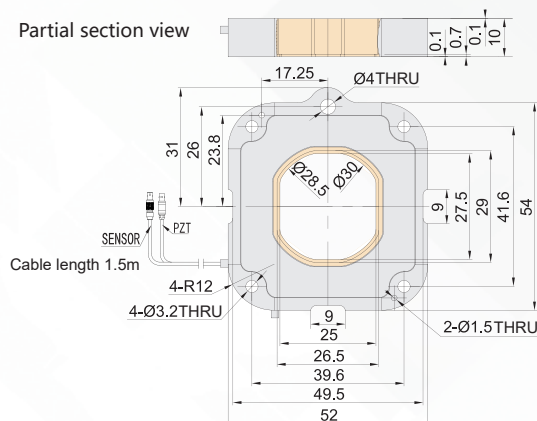
Note: The parallelism of the moving platform is about 20 $\mu\text{m}$ , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## 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/channel  
 RS-232/RS-422/USB interface  
 Software secondary development



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