

XY axes | P13A.XY90K

Piezo Nanopositioning Stages



Characteristics >>

- Active axes X, Y
- Low temperature 4K
- Displacement up to 30μm@150V at 4K
- Resolution to 0.3nm
- Open-loop drive, quick response

Applications >>

- Microscopic imaging
- Surface detection
- Precision positioning
- Interference/metrology
- Micromanipulation
- Optics

Introduction

P13A piezo stage is specially designed for extremely low temperature and strong magnetic field. It adopts low-temperature piezo drive with light shell and is in XY scanning motion. Its volume is small and the size is only 33×33×14.6mm, with a 10×10mm through hole in the center. All components adopt low temperature and strong magnetic compatible version to ensure its performance under low temperature and strong magnetic environment.



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Technical Data >>

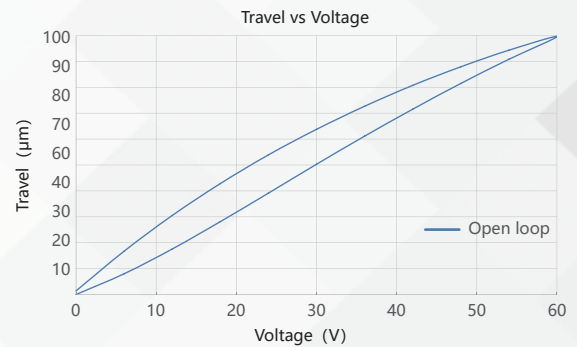
Type	P13A.XY90K		Units
Operating temperature	Room	4K	
Active axes	X, Y	X, Y	
Travel range	90 (0~60V)	30(0~150V)	$\mu\text{m} \pm 20\%$
Open-loop resolution	1	0.3	nm
Unloaded resonant frequency	450	450	$\text{Hz} \pm 20\%$
Resonant frequency@150g	160	160	$\text{Hz} \pm 20\%$
Load capacity	≤ 150	≤ 150	g
El. capacitance	5.5/axis	0.75/axis	$\mu\text{F} \pm 20\%$
Mainbody	Stainless steel	Ti	
Wires	Standard wire	Phosphor Bronze Twisted Paired Wire	
Operating environment	-20~80	Temperature to 4K, Max.magnetic field to 30T, Vacuum degree to 2E-11mbar	
Size(L×W×H)	33×33×14.6	33×33×14.6	mm
Mass	88	88	$\text{g} \pm 5\%$
Cable length ^[1]	1.5	1.5	$\text{m} \pm 10\text{mm}$
Voltage connector ^[1]	Bare wire	Bare wire	

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.

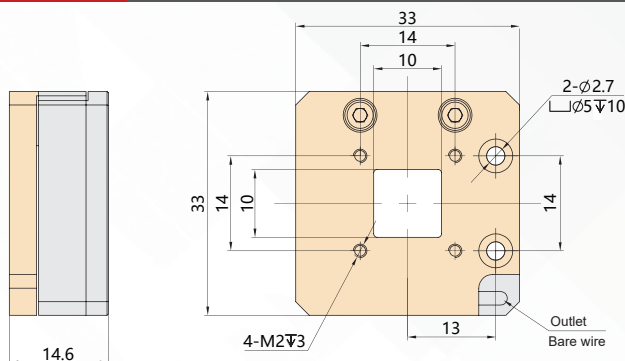
[1] Custom cable length and connector is available.

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 >>



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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