

XY axes | P63.XY7S/K

Piezo Nanopositioning Stage



Characteristics >>

- Active axes XY
- Stroke to 6.8 μ m/axis
- Load to 0.5kg
- Fast response time
- Repeatability to nanometer

Applications >>

- Microimaging
- Nanopositioning
- Biotechnology
- Quality assurance testing
- Semiconductor technology
- Minicars cut
- AFM

Introduction

P63.XY7 is small-size piezo nanopositioning stage with direct drive mechanism inside. Its important characteristics are ultra-precision and very small size, which is very easy to integrate into any scanning instrument. .



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Technical Data >>

Type	S-Closed loop K-Open loop	P63.XY7S	P63.XY7K	Units
Active axis		XY	XY	
Travel range(0~120V)		5.5/axis	5.5/axis	μm±10%
Travel range(0~150V)		6.8/axis	6.8/axis	μm±10%
Sensor		SGS	-	
Resolution		0.2	0.1	nm
Closed-loop linearity		0.4	-	%F.S.
Repeatability		0.2	-	%F.S.
Pitch/yaw/roll		<10	<10	μrad
Push/pull force capacity		8/2	8/2	N
Stiffness		X1.2/Y1.4	X1.2/Y1.4	N/μm±20%
Unloaded resonant frequency		X1.3/Y1.9	X1.3/Y1.9	kHz±20%
Unloaded Step time		1.5	0.3	ms±20%
Load capacity		0.5	0.5	kg
El. capacitance		0.8/axis	0.8/axis	μF±20%
Operating temperature ^[1]		-20~80	-20~80	°C
Material		Aluminum	Aluminum	
Size(L×W×H)		30×30×30	30×30×30	mm
Mass		120	120	g±5%
Cable length ^[2]		1.5	1.5	m±10mm
Sensor/voltage connector ^[2]		-	-	

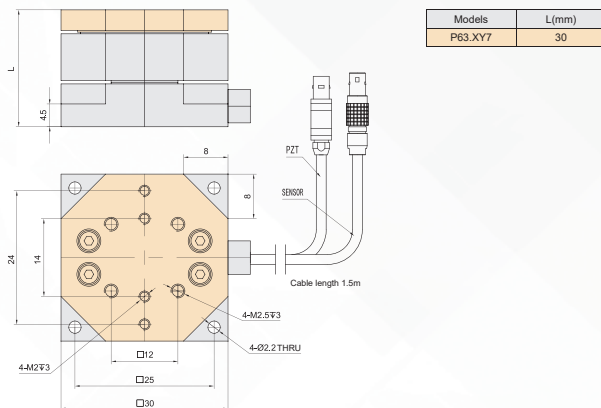
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

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

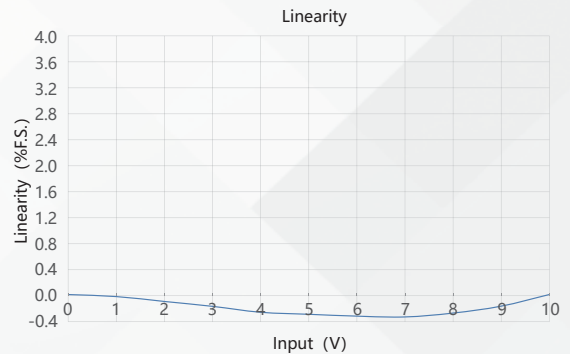
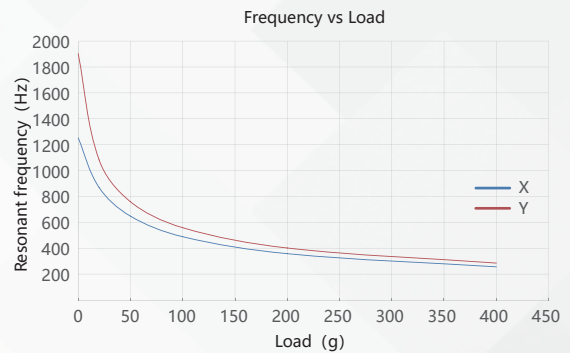
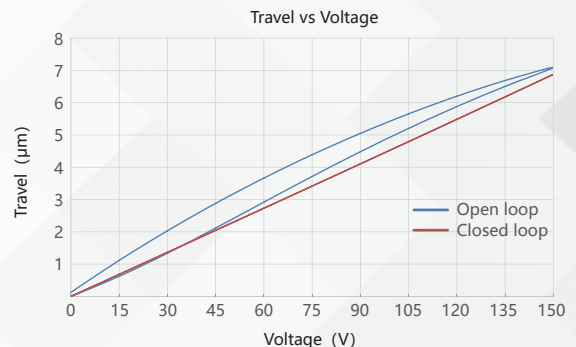
[2] Custom cable length and connector is available.

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

Drawing >>



Curves >>



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

Recommended Controllers >>



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



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



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