COREMORROW
Piezo Nano Motion

Make Your Motion and Control More Accurate!

X axis | P63.X7S/K

Piezo Nanopositioning Stage

Introduction

P63.X7 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. .

Characteristics »

- Active axes X
- Stroke to 6.8μm
- Load to 0.8kg
- Fast response time
- Repeatability to nanometer

Applications »

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

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Technical Data

Type	S-Closed loop K-Open loop	P63.X7S	P63.X7K	Units
Active axis		X	X	
Travel range(0~120V)		5.5	5.5	μm±10%
Travel range(0~150V)		6.8	6.8	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		<5	<5	μrad
Push/pull force capacity		10/2	10/2	N
Stiffness		1.5	1.5	N/μm±20%
Unloaded resonant frequency		2	2	kHz±20%
Unloaded Step time		1.5	0.3	ms±20%
Load capacity		0.8	0.8	kg
El. capacitance		0.8	0.8	μF±20%
Operating temperature[1]		-20~80	-20~80	℃
Material		Aluminum	Aluminum	
Size(L×W×H)		30×30×21	30×30×21	mm
Mass		70	70	g±5%
Cable length[2]		1.5	1.5	m±10mm
Sensor/voltage connector[2]		-	-	

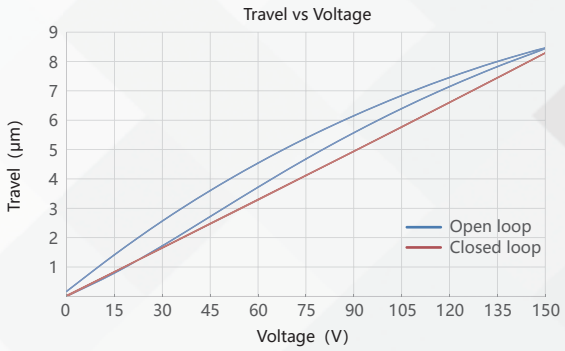
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation.Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

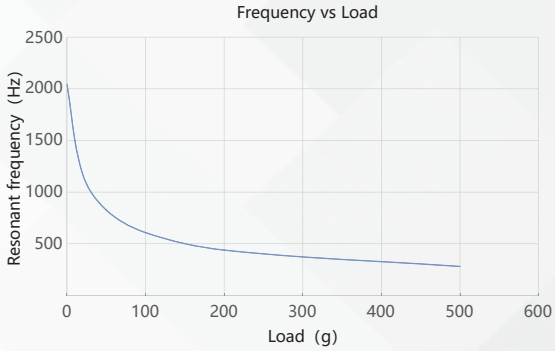
[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

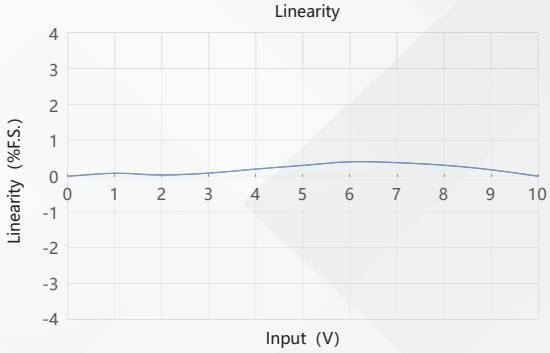
[2] Custom cable length and connector is available.

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.

Curves

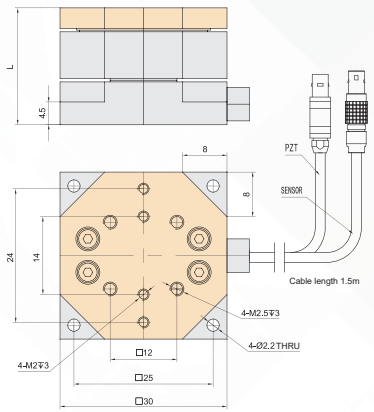






Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

Drawing



Models	L(mm)
P63.X7	21

Recommended Controllers

E01.D1
LCD, membrane button, up to 625mA
RS-232/RS-422/USB interface
Software secondary development

E53
Small size, 60mA
RS-232/RS-422/USB interface
Software secondary development

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