COREMORROW
Piezo Nano Motion

Make Your Motion and Control More Accurate!

Z axis | P66.Z30S/K

Piezo Nanopositioning Stage

Introduction

P66.Z30 is a piezo nanopositioning stage with Z motion using direct-drive mechanism. It is nanopositioning system combining piezo and flexible hinges, which could reach millisecond response time, sub-nano accuracy, and optional highprecision sensors for closed-loop control. It is ideal for positioning applications such as optical path length correction in interference, sample positioning in microscopy or scanning applications, etc.

Characteristics »

- Active axes Z
- Travel range to 30μm
- Max load to 1kg
- Fast response time
- Open/closed loop

Applications »

- Metering
- Nanometer positioning
- semiconductor technology
- Micro machining/precision control
- Interference / scanning
- CD disc test
- Quality assurance testing

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Technical Data »

Type	S-Closed loop K-Open loop	P66.Z30S	P66.Z30K	Units
Active axis		Z	Z	
Travel range(0~120V)		24	24	μm±10%
Travel range(0~150V)		30	30	μm±10%
Sensor		SGS	-	
Resolution		1	0.5	nm
Closed-loop linearity		0.1	-	%F.S.
Repeatability		0.05	-	%F.S.
Pitch/yaw/roll		<15	<15	μrad
Push/pull force capacity		30/10	30/10	N
Stiffness		1.1	1.1	N/μm±20%
Unloaded resonant frequency		1.4	1.4	kHz±20%
Unloaded Step time		15	1	ms±20%
Load capacity		1	1	kg
El. capacitance		3.6	3.6	μF±20%
Operating temperature[1]		-20~80	-20~80	℃
Material		Aluminum	Aluminum	
Size(L×W×H)		60×60×23	60×60×23	mm
Mass		200	200	g±5%
Cable length[2]		1.5	1.5	m±10mm
Sensor/voltage connector[2]		-	-	

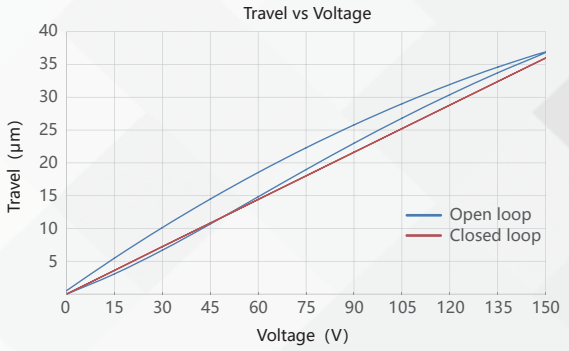
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation.Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

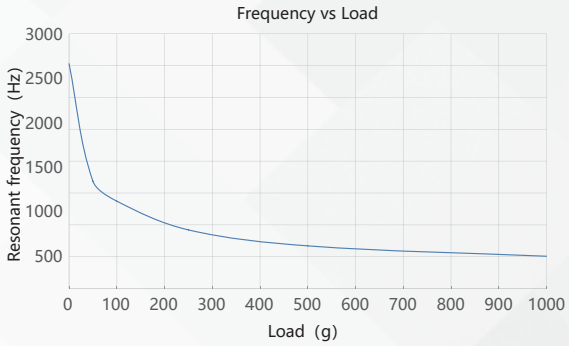
[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

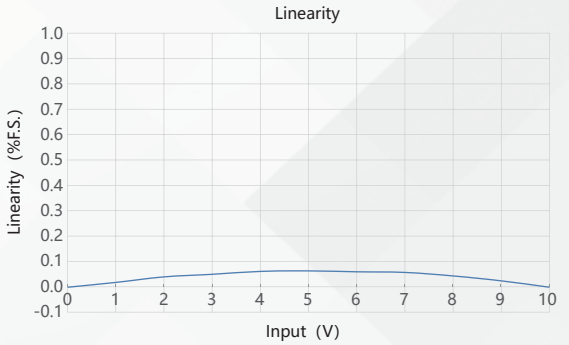
[2] Custom cable length and connector is available.

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 »



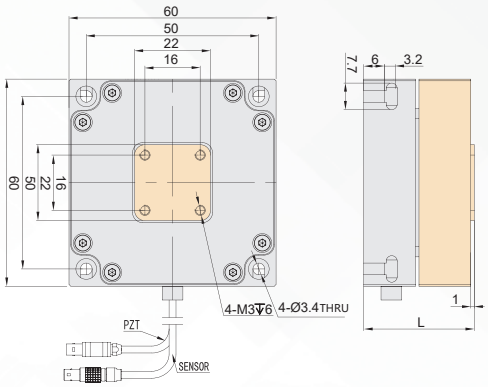




Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

Drawing »

Type	L(mm)
P66.Z30	23



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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