

X axis | N60.X30S/K

Piezo Nanopositioning Stages



Characteristics >>

- Active axes X
- Travel to 30 μ m
- Small size
- Fast response time
- Nanoscale positioning accuracy

Applications >>

- Laser interference
- Nano-measurement
- Nano-measurement
- Nano imprint
- Nano imprint
- Nano-lithography, biotechnology
- Scanning microscope
- Nanometer manipulation technology

Introduction

N60.X30 is X-axis piezo nanopositioning stage, built-in high-performance piezo actuator can achieve displacement of up to 30 μ m, excellent mechanism amplification design principle, high linearity of the X-axis movement, open loop or closed loop is optional, N60.X30 is small in size, compact in structure, and high in integration. It is an ideal choice for small size, high precision, one-dimensional precision positioning.



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Technical Data >>

Type	S-Closed loop K-Open loop	N60.X30S	N60.X30K	Units
Active axes		X	X	
Travel range(0~120V)		24	24	μm±10%
Travel range(0~150V)		30	30	μm±10%
Sensor		SGS	-	
Closed/open loop resolution		1	0.5	nm
Closed-loop linearity		0.5	-	%F.S.
Repeatability		0.3	-	%F.S.
Pitch/yaw/roll		<10	<10	μrad
Push/pull force		8/2	8/2	N
Stiffness		0.6	0.6	N/μm±20%
Unloaded resonant frequency		1.8	1.8	kHz±20%
Closed/open-loop unloaded step time		10	2	ms±20%
Load capacity		0.5	0.5	kg
El. capacitance		0.8	0.8	μF±20%
Operating temperature ^[1]		-20~80	-20~80	°C
Material		Aluminum	Aluminum	
Size(L×W×H)		28×28×12.5	28×28×12.5	mm
Mass		80	80	g±5%
Cable length ^[2]		1.5	1.5	m±10mm
Connector ^[2]		-	-	

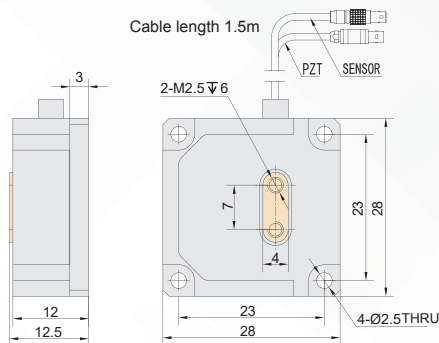
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

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

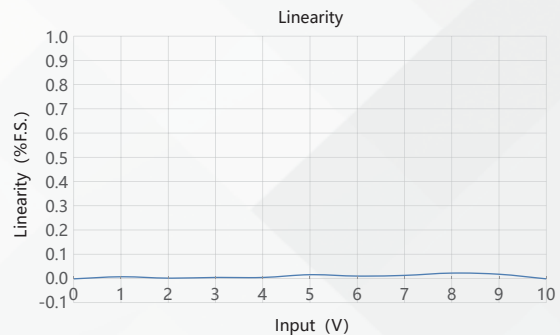
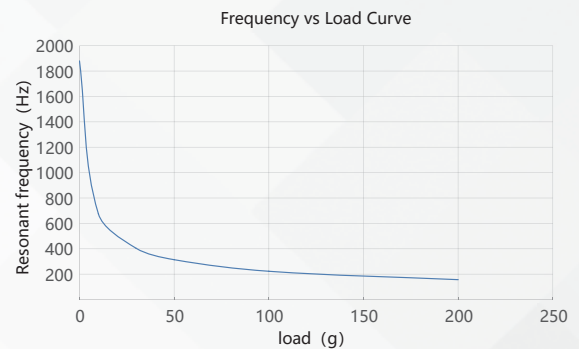
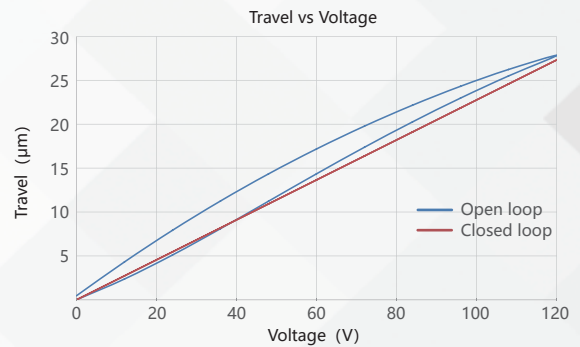
[2] Custom cable length and connector is available.

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.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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