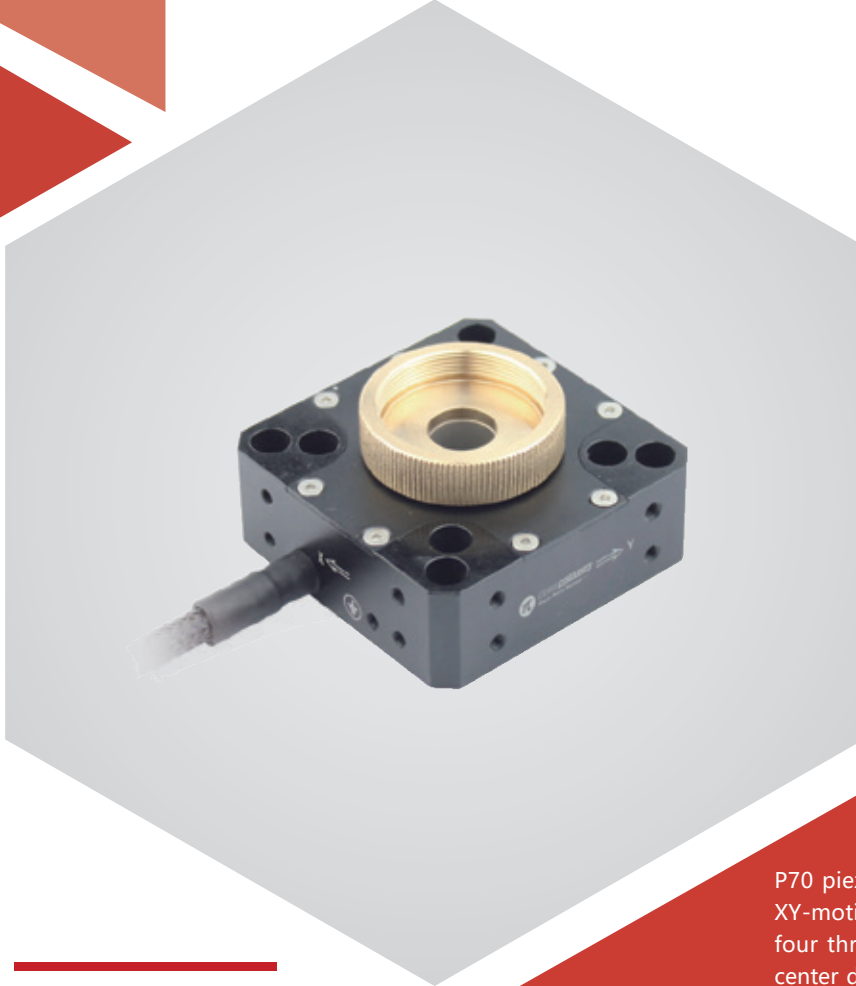


XY axes | P70.XY20S/K

Piezo Nanopositioning Stages



Introduction

P70 piezo nanopositioning scanner has two versions, XY-motion and Z-motion version. Both versions have four through holes at the four corners, and the hole center distance is 30mm, which is very suitable for the installation of cage structures.

Characteristics >>

- X, Y motion
- Travel to $\pm 8.5\mu\text{m}/\text{axis}$
- Load capacity up to 300g
- Suitable for XY scanning objective lens
- Flexure hinge construction

Applications >>

- Laser interference
- Nano-measurement
- Nano imprint
- Scanning microscope
- Quality assurance test
- Micromachining / precision control
- Biotechnology
- Nanopositioning



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Technical Data >>

Type	S-Closed loop K-Open loop	P70.XY20S	P70.XY20K	Units
Active axes		X, Y	X, Y	
Driving channels		3	3	
Travel rang		±7/axis (@100V)	±7/axis (@100V)	μm±10%
Travel rang		±8.5/axis (@120V)	±8.5/axis (@120V)	μm±10%
Sensor		SGS	-	
Resolution		0.6	0.2	nm
Linearity		0.3	-	%F.S.
Repeatability		0.2	-	%F.S.
Pitch/yaw/roll		<15	<15	μrad
Load capacity		300	300	g
Closed-loop unloaded response		30	30	ms±20%
Unloaded resonant frequency		1.2	1.2	kHz±20%
Loaded resonance		0.4 (53g)	0.4 (53g)	kHz±20%
El. capacitance		0.8/axis	0.8/axis	μF±20%
Operating temperature ^[1]		-20~80	-20~80	°C
Material		Steel, Al	Steel, Al	ms±20%
Size(L×W×H)		50×50×26.5	50×50×26.5	mm
Mass		175	175	g±5%
Cable length ^[2]		1.5	1.5	m±10mm
Connector ^[2]		-	-	

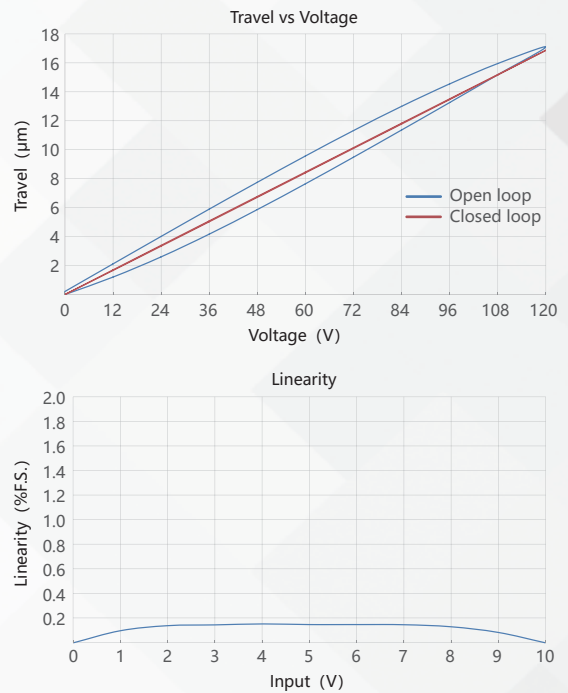
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

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

[2] Custom cable length and connector is available.

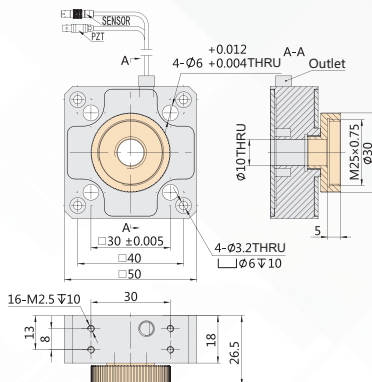
Note: The parallelism of the moving platform is about 20μm, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Curves >>



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

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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