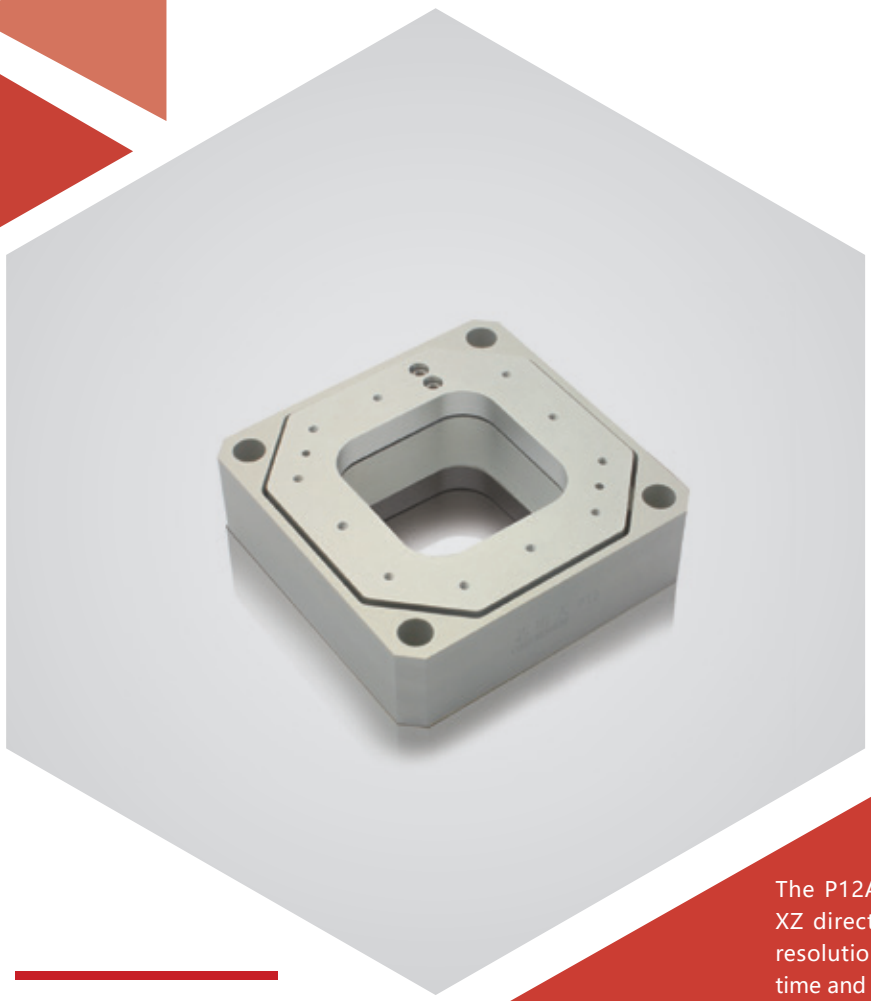
COREMORROW
Piezo Nano Motion

Make Your Motion and Control More Accurate!

XZ axis | P12A.XZ100S/K

Piezo Nanopositioning Scanner



Introduction

The P12A.XZ100S/K piezo scanning stage moves in XZ direction, and optionally equipped with a high-resolution sensor, which detects the position in real time and feeds it back to the piezo controller.
P12A piezo scan stage, matched with CoreMorrow E70 modular controller, is applied to optical microscopy imaging to realize XZ axis precision scanning.

Characteristics »

- Motion in XZ
- Travel to 100μm/axis
- Load capacity to 0.6kg
- Aperture of 45×45mm
- Open/closed-loop version

Applications »

- Scanning microscopy
- Confocal microscopy
- Surface measurement
- Semiconductor test
- Image process and stability
- Micromanipulation

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Technical Data »

Type	S-Closed loop K-Open loop	P12A.XZ100S	P12A.XZ100K	Units
Active axes		X, Z	X, Z	
Travel range(0~120V)		80/axis	80/axis	μm±10%
Travel range(0~150V)		100/axis	100/axis	μm±10%
Integrated sensor		SGS	-	
Aperture		45×45	45×45	mm
Resolution		3	1	nm
Linearity		0.1	-	%F.S.
Repeatability		0.05	-	%F.S.
Pitch/yaw/roll		<15	<15	μrad
Push/pull force		25/8	25/8	N
Stiffness		X0.3/Z0.25	X0.3/Z0.25	N/μm±20%
Unloaded resonant frequency		X200/Z150	X200/Z150	Hz±20%
Unloaded step time		15/0.8	15/0.8	ms±20%
Load capacity		0.6	0.6	kg
El. capacitance		3.6/axis	3.6/axis	μF±20%
Operating temperature[1]		-20~80	-20~80	℃
Material		Steel, Al	Steel, Al	
Size (L×W×H)		85×85×28	85×85×28	mm
Mass		290	290	g±5%
Cable length[2]		1.5	1.5	m±10mm
Sensor/voltage connector[2]		-	-	

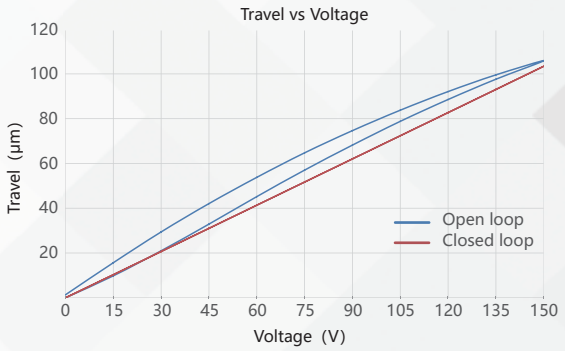
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation.Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

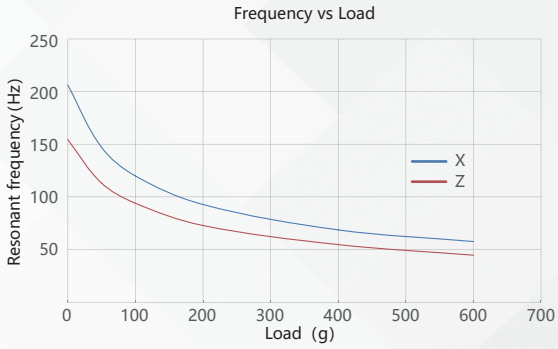
[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

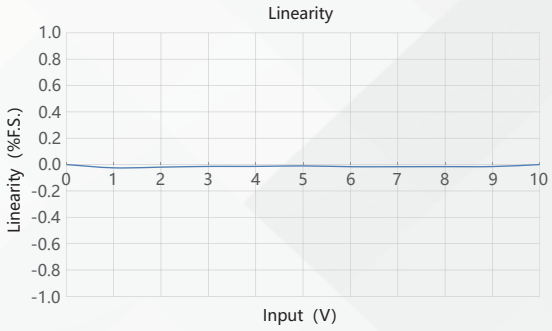
[2] Custom cable length and connector is available.

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 »

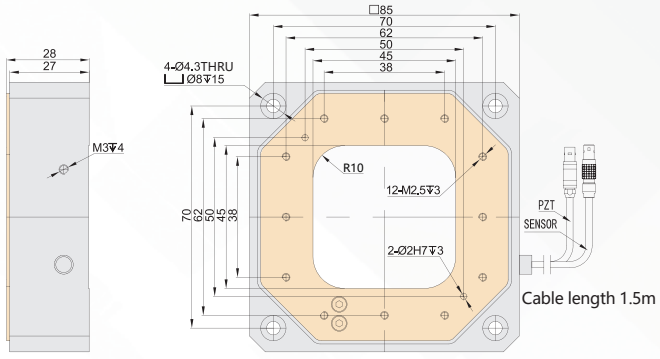






Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

Drawing »



Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term, high-reliability operation. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

Recommended Controllers »

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

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

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