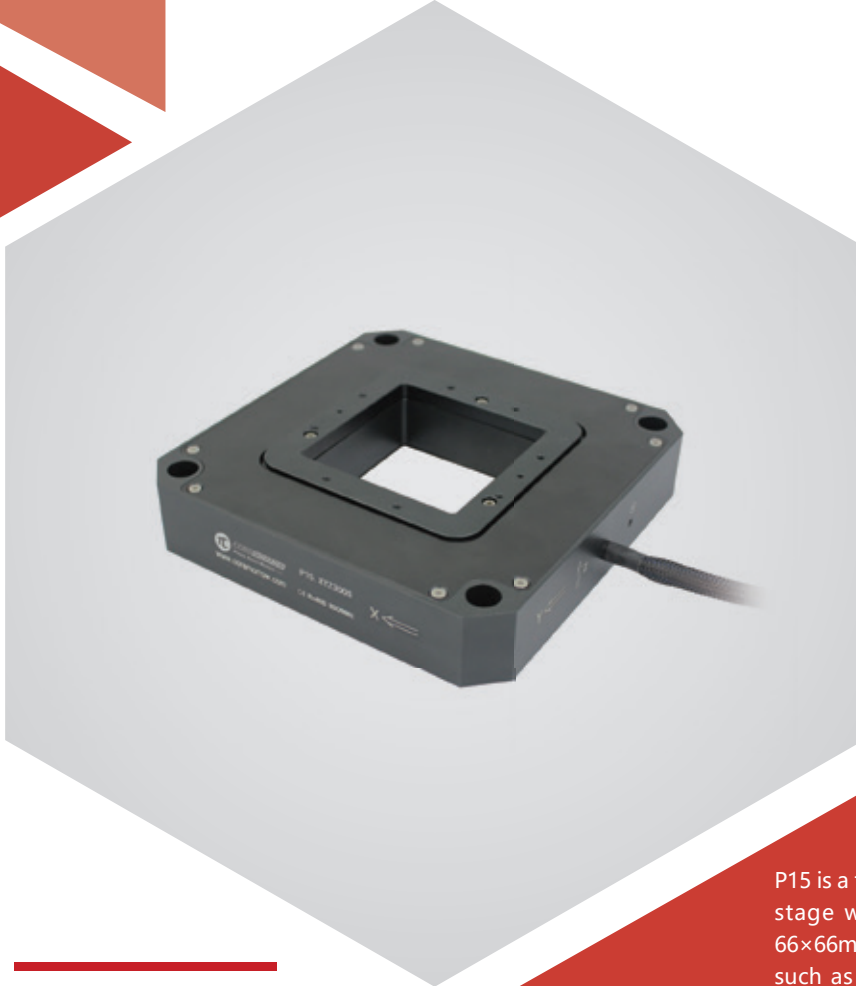


XYZ axes | P15.XYZ300S/K

Piezo Nanopositioning Stages



Characteristics >>

- 3 axes
- Travel to 300 μ m/axis
- Aperture of 66 \times 66mm
- Closed-loop sensor available
- Frictionless, high precision flexible guiding system

Applications >>

- Scanning microscope
- Interferometry
- Biotechnology
- Mask/wafer Positioning
- Metrology
- Micromanipulation

Introduction

P15 is a fast, high-precision scanning and nanopositioning stage with very high straightness. The aperture is 66 \times 66mm, which is ideal for transmitted-light applications such as near field scanning, confocal microscopy and mask positioning. P15 has 300 μ m displacement and its internal finite element analysis (FEA) optimized wire-cut flexural hinge structure. FEA gives it the design with the highest possible stiffness and minimizes linear and angular runout.



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790 Email: info@coremorrow.com
Fax: +86-451-86267847 Web: www.coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin
Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

Technical Data >>

Type	S-Closed loop K-Open loop	P15.XYZ300S	P15.XYZ300K	Units
Active axes		X, Y, Z	X, Y, Z	
Driving channels		3	3	
Travel rang(0~120V)		240/axis	240/axis	$\mu\text{m}\pm 10\%$
Travel rang(0~150V)		300/axis	300/axis	$\mu\text{m}\pm 10\%$
Sensor		SGS	-	
Aperture		66×66	66×66	mm
Resolution		8	2.5	nm
Linearity		0.2	-	%F.S.
Repeatability		0.1	-	%F.S.
Pitch/yaw/roll		<30	<30	μrad
Push/pull force		50/10	50/10	N
Stiffness		0.1	0.1	$\text{N}/\mu\text{m}\pm 20\%$
Unloaded resonant frequency, X/Y/Z		140/170/220	140/170/220	$\text{Hz}\pm 20\%$
Closed/open-loop unloaded step time		60	10	$\text{ms}\pm 20\%$
Load capacity		0.5	0.5	kg
El. capacitance		XY10.8, Z13.2	XY10.8, Z13.2	$\mu\text{F}\pm 20\%$
Operating temperature ^[1]		-20~80	-20~80	$^{\circ}\text{C}$
Material		Aluminum	Aluminum	
Size(L×W×H)		150×150×30	150×150×30	mm
Mass		830	830	$\text{g}\pm 5\%$
Cable length ^[2]		1.5	1.5	$\text{m}\pm 10\text{mm}$

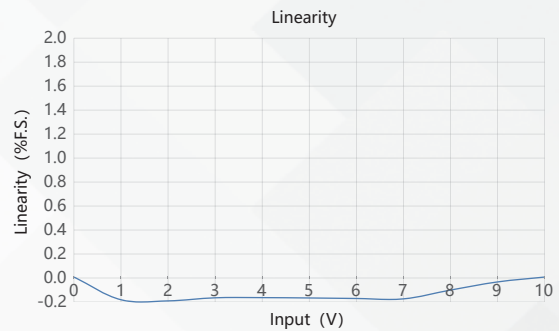
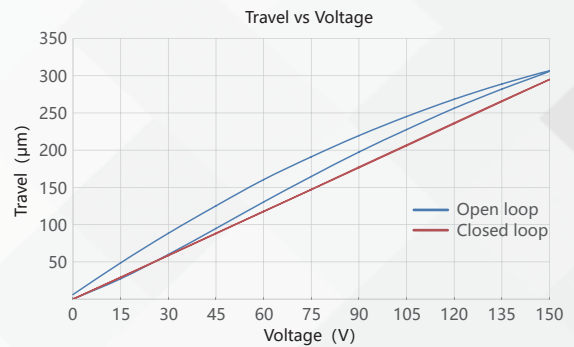
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

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

[2] Custom cable length and connector is available.

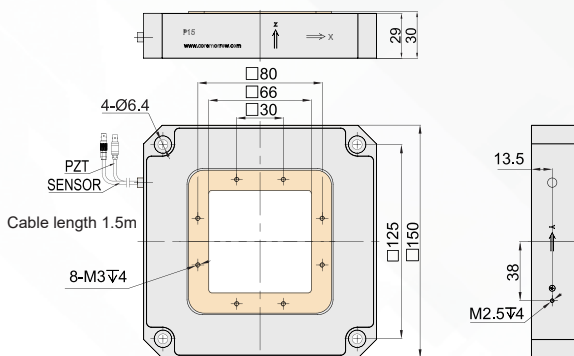
Note: The parallelism of the moving platform is about 20 μm , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

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



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790 Email: info@coremorrow.com
Fax: +86-451-86267847 Web: www.coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin
Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai