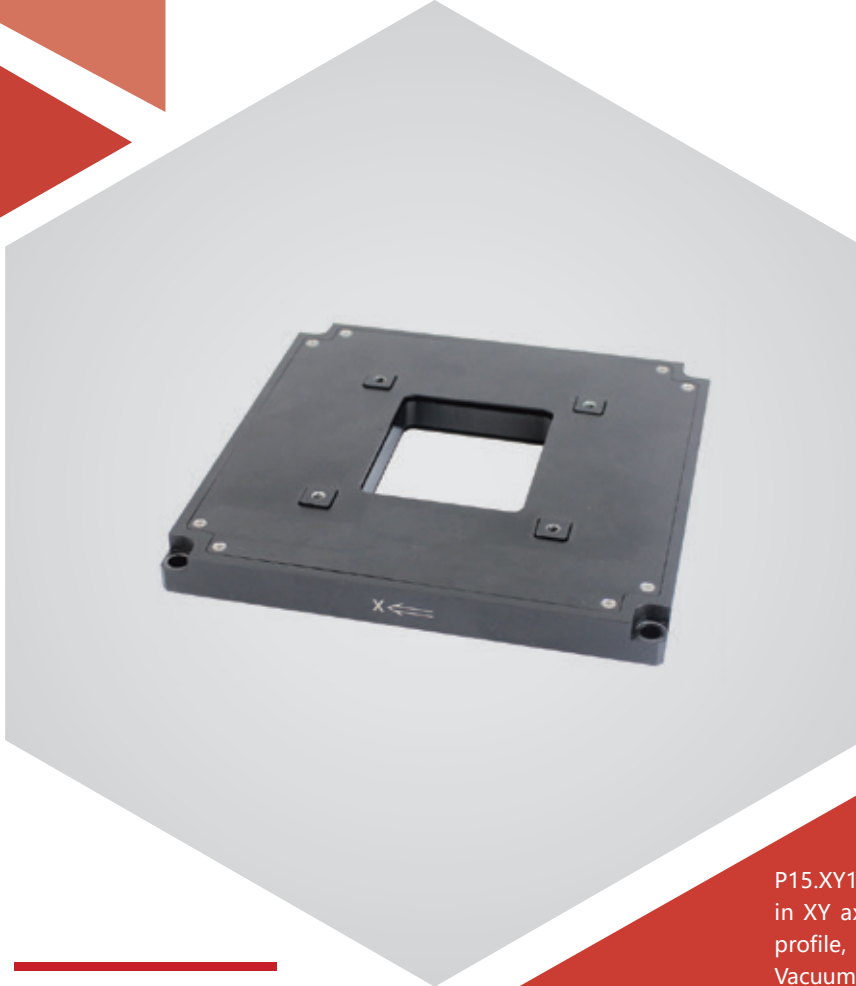# XY axes | P15.XY100S/K−B1
Piezo Nanopositioning Stage

Introduction

P15.XY100S/K-B1 piezo nanopositioning stage moves in XY axes, features 100μm/axis travel and very low profile, and SGS sensor is available for high accuracy. Vacuum suction cup can be installed on it.

Characteristics

- XY motion
- Travel to 100μm/axis
- Load capacity to 500g
- Very low profile
- Optional sensor

Applications »

- Surface inspection
- Microscopy imaging
- Laser technology
- Semiconductor processing and test
- Metrology
- Micromanipulation

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Technical Data »

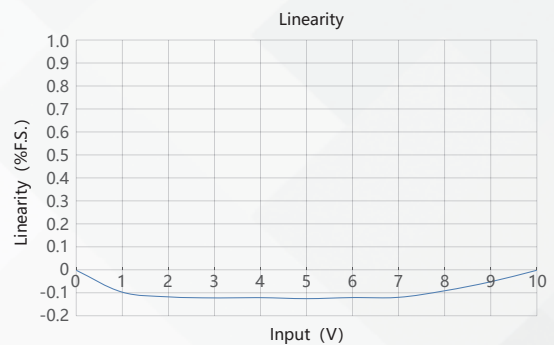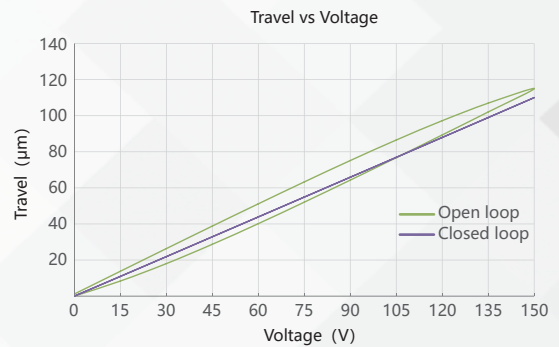| Types	S-Closed loop K-Open loop	P15.XY100S-B1	P15.XY100K-B1	Units
Active axes		X, Y	X, Y	
Nominal travel(0~120V)		80/axis	80/axis	μm±10%
Travel(0~150V)		100/axis	100/axis	μm±10%
Sensor type		SGS	-	
Resolution		3	1	nm
Linearity		0.15	-	%F.S.
Repeatability		0.05	-	%F.S.
Pitch/yaw/roll		≤ 10	≤ 10	μrad
Unloaded resonant frequency		490	490	Hz±20%
Unloaded step time		50	20	ms±20%
Load capacity		500	500	g
El.capacitance		14.5	14.5	μF±10%
Operating temperature[1]		-20~80	-20~80	℃
Material		Aluminum	Aluminum	
Size(L×W×H)		160×160×16	160×160×16	mm
Cable length[2]		1.5	1.5	m±10mm
Mass		730	730	g±5%

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.
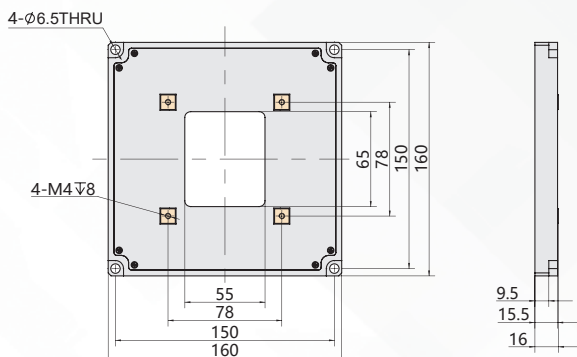[2] Custom cable length and connector is available.
Note: The parallelism of the moving platform is about 20μm, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Curves »

Travel vs Voltage

Linearity

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

Drawing »

4-Ø6.5THRU
4-M4▽8

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