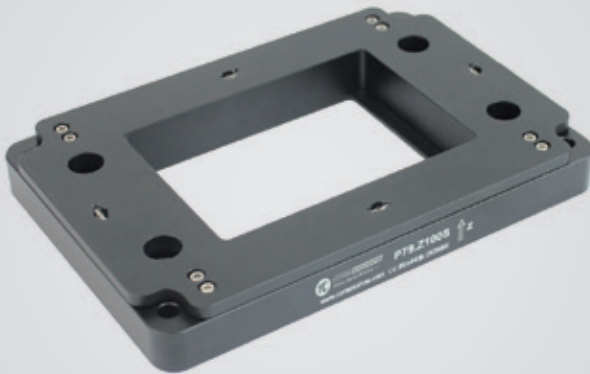


Z axis | P79.Z100S/K

Piezo Z Microscope Scanner



Characteristics >>

- Active axes Z
- Max stroke to 100µm
- Load to 2kg
- Aperture size: 83×65mm
- High closed-loop repeatability

Applications >>

- Fluorescence/confocal microscopy
- Confocal microscopy
- Biotechnology
- Autofocus system
- Sample detection
- 3D imaging
- Semiconductor test

Introduction

P79.Z100 piezo Z microscope scanner is a Z-axis micro-motion platform, mainly used for supporting macro-motion XY-axis micro-scanning stages and piezoelectric motor platforms on the market. P79.Z100 platform can perform fast Z-axis focus adjustments with milliseconds step time.



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Technical Data >>

Type	S-Closed loop K-Open loop	P79.Z100S	P79.Z100K	Units
Active axis		Z	Z	
Travel range(0~120V)		80	80	$\mu\text{m}\pm 20\%$
Travel range(0~150V)		100	100	$\mu\text{m}\pm 20\%$
Sensor		SGS	-	
Aperture		83×65	83×65	mm
Resolution		3	1	nm
Closed-loop linearity		0.1	-	%F.S.
Repeatability		0.05	-	%F.S.
Pitch/yaw/roll		<15	<15	μrad
Push/pull force capacity		30/15	30/15	N
Stiffness		0.3	0.3	$\text{N}/\mu\text{m}\pm 20\%$
Unloaded resonant frequency		200	200	$\text{Hz}\pm 20\%$
Unloaded Step time		15	3.2	$\text{ms}\pm 20\%$
Load capacity		2	2	kg
El. capacitance		7.2	7.2	$\mu\text{F}\pm 20\%$
Operating temperature ^[1]		-20~80	-20~80	°C
Material		Steel, Al	Steel, Al	
Size(L×W×H)		160×110×20	160×110×20	mm
Mass		590	590	$\text{g}\pm 5\%$
Cable length ^[2]		1.5	1.5	$\text{m}\pm 10\text{mm}$
Sensor/voltage connector ^[2]		-	-	

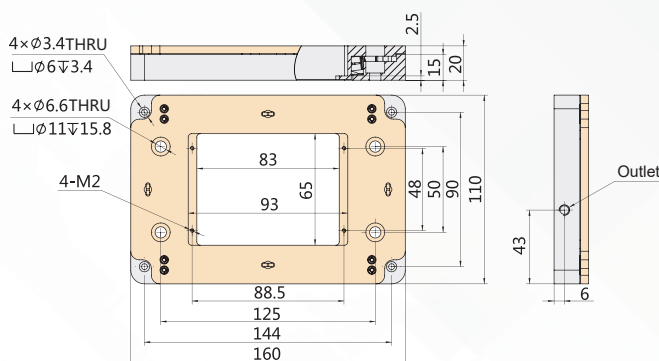
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

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

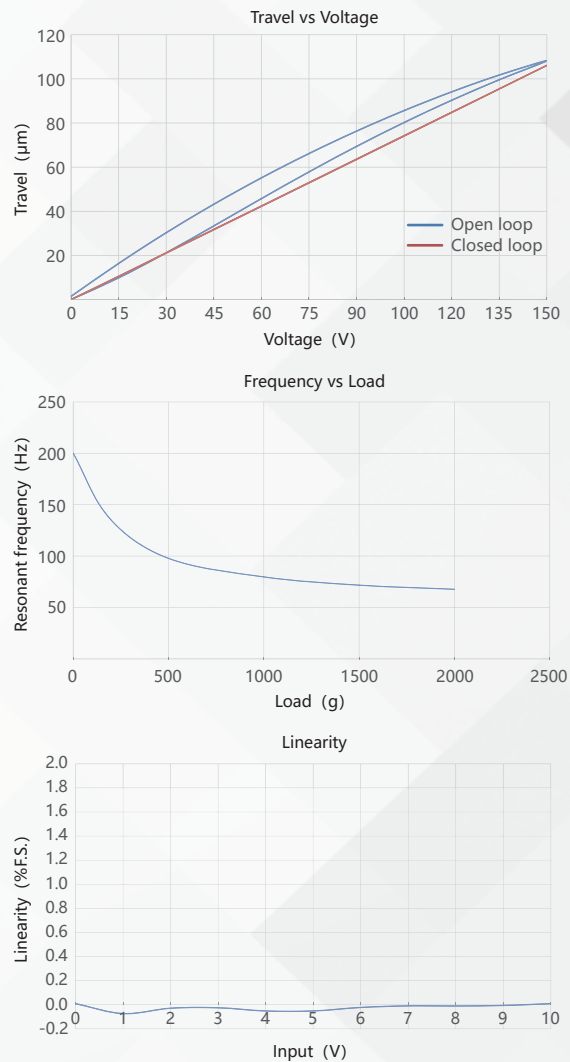
[2] Custom cable length and connector is available.

Note: The parallelism of the moving platform is about 20 μm , 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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