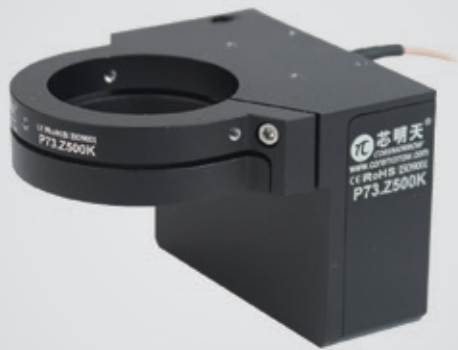


Z axis | P73.Z500S/K

Piezo Objective Scanner



Characteristics >>

- Active axes Z
- Travel to 500 μ m
- Load capacity to 0.4kg
- Millisecond response time
- Closed loop for high repeatability

Applications >>

- 3D imaging
- Surface structure analysis
- Biotechnology
- Interference/metering
- Confocal microscope
- Semiconductor test

Introduction

P73.Z500 piezo objective scanner features a long travel of 500 μ m in Z direction. It also adopts flexible hinge mechanism, with no friction, good linearity and high positioning accuracy. P73.Z500 is widely used in long-travel scanning of microscopic imaging, twophoton microscopy and other fields.



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Technical Data >>

Type	S-Closed loop K-Open loop	P73.Z500S	P73.Z500K	Units
Active axis		Z	Z	
Travel range(0~120V)		400	400	$\mu\text{m}\pm 10\%$
Travel range(0~150V)		500	500	$\mu\text{m}\pm 10\%$
Integrated sensor		SGS	-	
Resolution		14	4	nm
Linearity		0.1	-	%F.S.
Repeatability		0.05	-	%F.S.
Push/pull force		80/10	80/10	N
Stiffness		0.2	0.2	$\text{N}/\mu\text{m}\pm 20\%$
Unloaded resonant frequency		170	170	$\text{Hz}\pm 20\%$
Unloaded step time		120@200g	10	$\text{ms}\pm 20\%$
Load capacity		0.4	0.4	kg
El. capacitance		14	14	$\mu\text{F}\pm 20\%$
Operating temperature ^[1]		-20~80	-20~80	$^{\circ}\text{C}$
Material		Steel, Al	Steel, Al	
Mass		300	300	$\text{g}\pm 5\%$
Cable length ^[2]		1.5	1.5	$\text{m}\pm 10\text{mm}$
Sensor/voltage connector ^[2]		-	-	

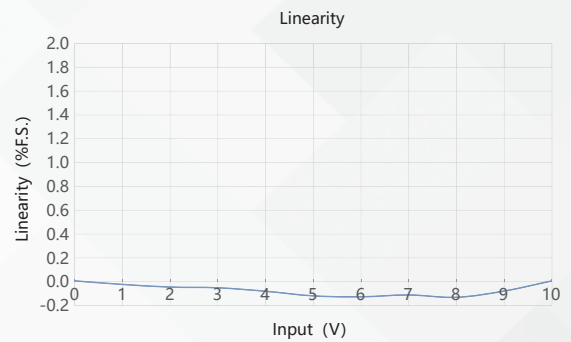
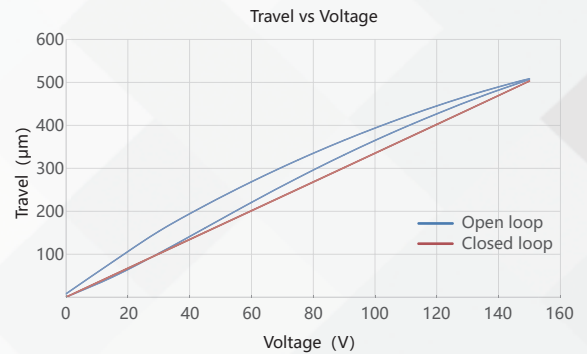
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

[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.

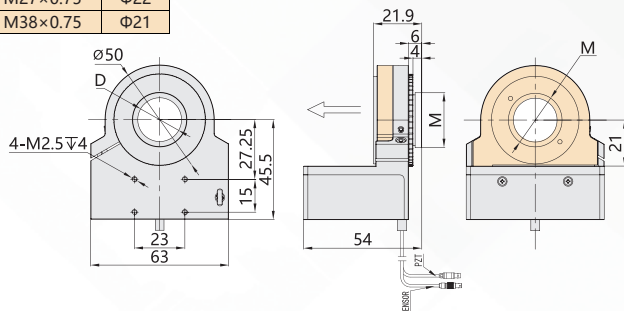
Curves >>



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

Drawing >>

M(Model)	D(mm)
*W0.8×1/36"	Φ15
M25×0.75	Φ20
M26×1/36"	Φ21
M26×0.75	Φ21
M27×0.75	Φ22
M38×0.75	Φ21



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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