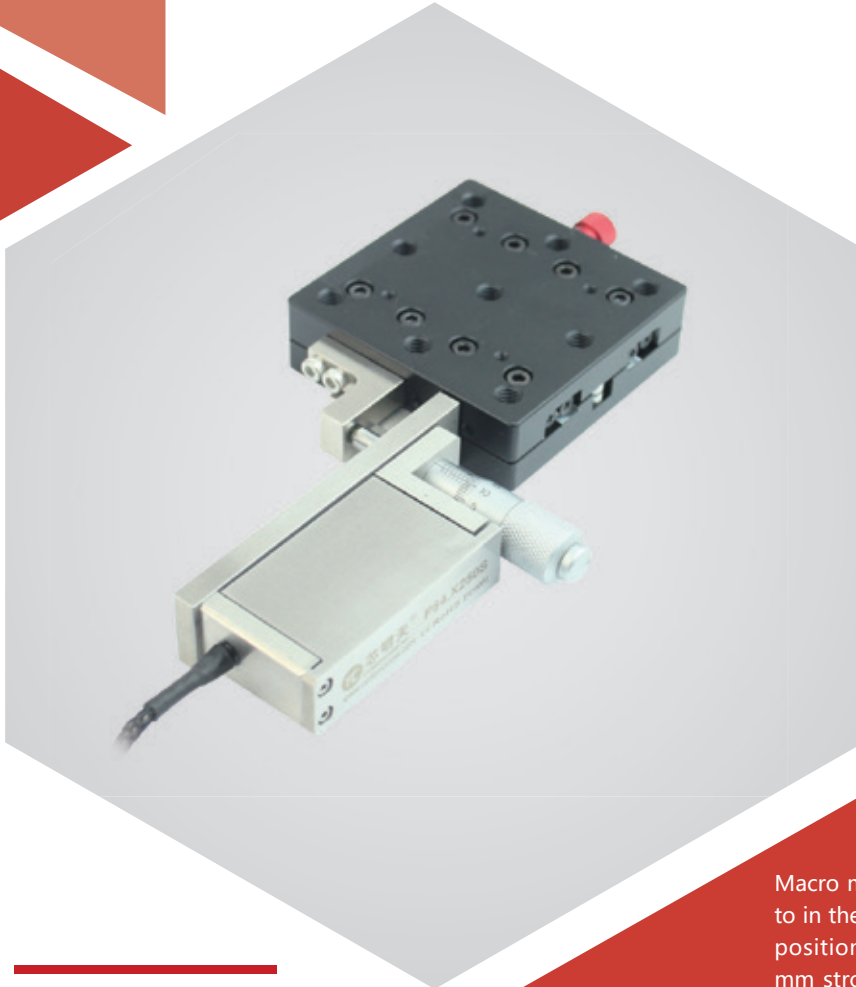


# X axis | X65P84S/K250

## Piezoelectric macro – micro composite platform



### Characteristics >>

- Motion in X
- Selectable sensor
- Manual micrometer displacement to 13mm, resolution to 10μm
- Piezo displacement up to 250μm, resolution to 2nm
- Custom longer coarse/fine travel is available

### Applications >>

- Optical alignment
- Cell manipulation
- Precision positioning
- Micromachining/precision control

## Introduction

Macro micro composite piezoelectric platform is to point to in the micrometer integration on the basis of the piezo positioning platform, hand the micrometer can be 13 mm stroke of macro regulation, piezoelectric movement platform can be 250 microns stroke of nanoscale micro adjustment, and micrometer adjustment accuracy on the platform of piezoelectric motor adjustment range, so as to ensure the precision of adjustment and convenient.



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## Technical Data >>

Type	S- Closed loop K- Open loop	X65P84S250	X65P84K250	Units
Active axes		X	X	
Travel range(coarse+fine)		13+250/axis	13+250/axis	mm+μm
Material		Steel,Al	Steel,Al	
Manual Adjustment - Micrometer				
Travel range		13/axis	13/axis	mm
Resolution		10	10	μm
Driving mode		Screw thread pair		
Sensitivity		<2	<2	μm
Least count		10	10	μm/div
Screw pitch		0.5	0.5	mm/rev.
Piezo Adjustment - Piezo				
Travel range	0~120V	200/axis	200/axis	μm±20%
	0~150V	250/axis	250/axis	
Sensor		SGS	-	
Min step (resolution)		7	2	nm, typ.
Closed-loop linearity		0.1	-	%F.S.
Repeatability		0.05	-	%F.S.
Push force capacity		8	8	N
Stiffness		0.03	0.03	N/ μm±20%
Load(Z axis)		1.3	1.3	kg
Mass		500	500	g±5%
E.I capacitance		7.2/axis	7.2/axis	μF±20%
Operating temperature <sup>[1]</sup>		-20~80	-20~80	°C
Cable <sup>[2]</sup>		1.5	1.5	m±10mm
Connector <sup>[2]</sup>		LEMO	LEMO	

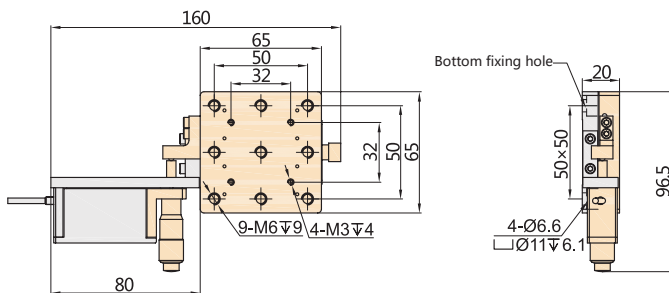
Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term and high-reliable operation to extend lifetime. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

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



[2] Custom cable length and connector is available.

Note: The parameters mentioned above are related to the test environment and test equipment.

## Drawing >>



## Composition >>

Piezo stage	Micrometer
250μm Travel	13mm Travel
	

## 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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