

# XZ axis | XZ65P84S/K

## Piezoelectric macro – micro composite platform



## 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 13mm stroke of macro regulation, piezoelectric movement platform can be 100 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.

### Characteristics >>

- X Z motion
- Manual displacement to 13mm/axis, resolution to 10 $\mu$ m
- Piezo displacement to 100 $\mu$ m/axis, resolution to 1nm
- Optional feedback sensor
- Custom longer coarse/fine travel is available

### Applications >>

- Optical alignment
- Cell manipulation
- Precision positioning
- Micromachining



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## Technical Data >>

Type	XZ65P84S	XZ65P84K	Units
Active axes	X Z	X Z	
Travel range (coarse+fine)	13+100/axis	13+100/axis	mm+μm
Material	Steel, Aluminum	Steel, Aluminum	
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	80/axis	μm±20%
	0~150V	100/axis	
Sensor	SGS	-	
Min step ( resolution )	3	1	nm, typ.
Closed-loop linearity	0.1	-	%F.S.
Repeatability	0.05	-	%F.S.
Push force capacity	16	16	N
Stiffness	1	1	N/μm±20%
Load ( Z axis )	0.5	0.5	kg
Mass	1000	1000	g
Electrical capacitance	1.8/axis	1.8/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	

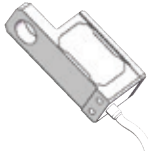

Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term and high-reliable operation to extend lifetime. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

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

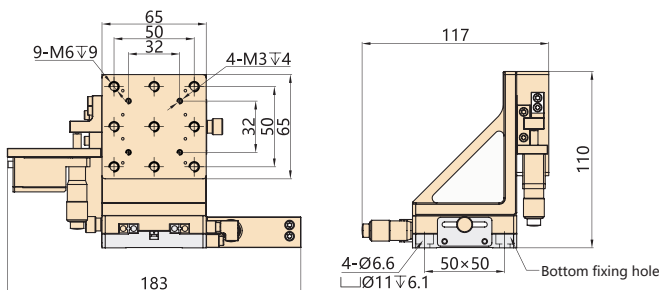
[2] Custom cable length and connector is available.

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

## Composition >>

Piezo stage	Micrometer
100μm Travel	13mm Travel
	

## Drawing >>



## Recommended Controllers >>



**E01.D3**  
 LCD, membrane button, up to 625mA  
 RS-232/RS-422/USB interface  
 Software secondary development



**E70**  
 Small size, ave current 70mA/channel  
 RS-232/RS-422/USB interface  
 Software secondary development



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