

XYZ axis | XYZ65P84S/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 Y Z motion
- Manual displacement to 13mm/axis, resolution to 10 μ m
- Piezo displacement to 100 μ m/axis, resolution to 1nm
- Optional feedback sensor
- Custom longer coarse/fine travel is available

Applications >>

- Optical alignment
- Cell manipulation
- Precision positioning
- Micromachining



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790 Email: info@coremorrow.com
Fax: +86-451-86267847 Web: www.coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin
Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

Technical Data >>

Type	XYZ65P84S	XYZ65P84K	Units	
Active axes	X Y Z	X Y 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	80/axis	μm±20%
	0~150V	100/axis	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	1550	1550		g±5%
Electrical capacitance	1.8/axis	1.8/axis		μF±20%
Operating temperature ^[1]	-20~80	-20~80		°C
Cable ^[2]	1.5	1.5		m±10mm
Connector ^[2]	LEMO	LEMO		

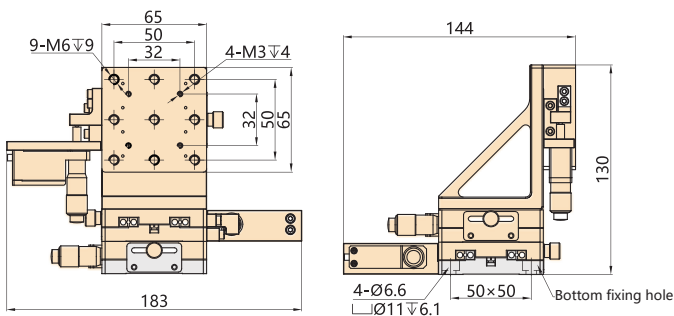
Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term and high-reliable operation to extend lifetime. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

[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
100μm Travel	13mm Travel
	

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



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790

Email: info@coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Fax: +86-451-86267847

Web: www.coremorrow.com

Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai