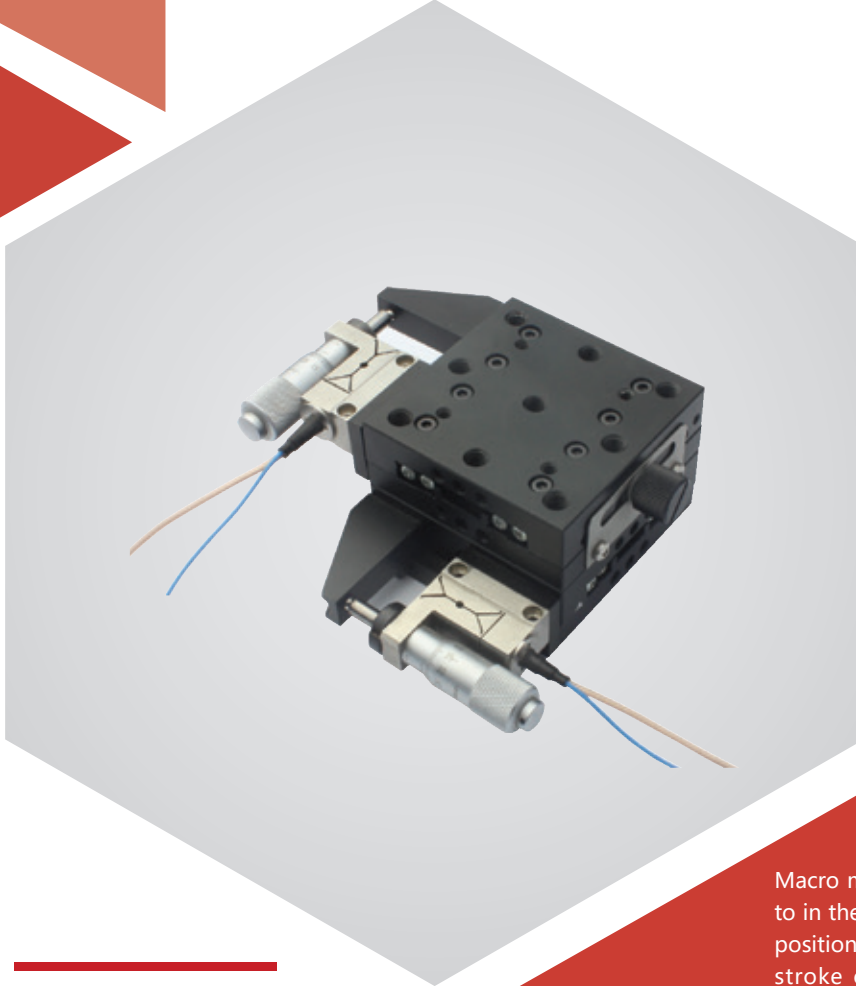


XY axis | XY65P83S/K

Piezoelectric macro – micro composite platform



Characteristics >>

- X Y motion
- Manual displacement to 13mm/axis, resolution to 10 μ m
- Piezo displacement to 25 μ m/axis, resolution to 0.5nm
- Optional feedback sensor
- Custom longer coarse/fine travel is available

Applications >>

- Optical alignment
- Cell manipulation
- Precision positioning
- Micromachining

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 25 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.



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	XY65P83S	XY65P83K	Units	
Active axes	X Y	X Y		
Travel range (coarse+fine)	13+25/axis	13+25/axis	mm+ μ m	
Material	Steel, Aluminum	Steel, Aluminum		
Manual Adjustment - Micrometer				
Travel range	13/axis	13/axis	mm	
Resolution	10	10	μ m	
Driving mode	Screw thread pair			
Sensitivity	<2	<2	μ m	
Least count	10	10	μ m/div	
Screw pitch	0.5	0.5	mm/rev.	
Piezo Adjustment - Piezo				
Travel range	0~120V	20/axis	20/axis	μ m \pm 20%
	0~150V	25/axis	25/axis	
Sensor	SGS	-		
Min step (resolution)	1.5	0.5		nm, typ.
Closed-loop linearity	0.2	-		%F.S.
Repeatability	0.1	-		%F.S.
Push force capacity	20	20		N
Stiffness	2	2		N/ μ m \pm 20%
Load (Z axis)	1.5	1.5		kg
Mass	800	800		g \pm 5%
Electrical capacitance	1.8/axis	1.8/axis		μ F \pm 20%
Operating temperature ^[1]	-20~80	-20~80		$^{\circ}$ C
Cable ^[2]	1.5	1.5		m \pm 10mm
Connector ^[2]	LEMO	LEMO		

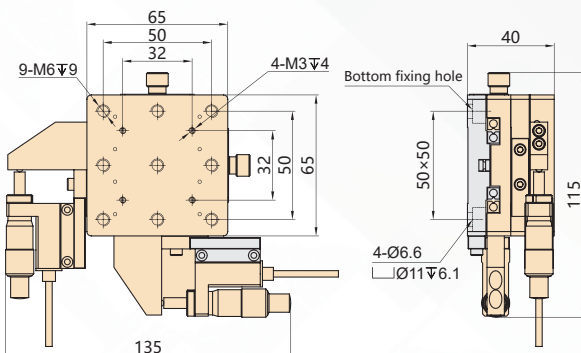
Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term and high-reliable operation to extend lifetime. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

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

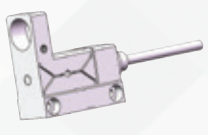

[2] Custom cable length and connector is available.

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

Drawing >>



Composition >>

Piezo stage	Micrometer
25 μ m 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



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